06-16-2023 LETTING ITEM 181

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
24	"	"	160	1
	ILLINOIS	CONTRACT NO. 78912		

"X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1
WILLIAMSON/JOHNSON

D-99-004-22

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAI ROUTE 24 (I-24)
SECTION X1-2,44-(2,3,4,5)RS-2;D9 Bridge Resurf 2024-1
PROJECT NHPP-Y9UM(284)
RESURFACING
WILLIAMSON & JOHNSON COUNTIES

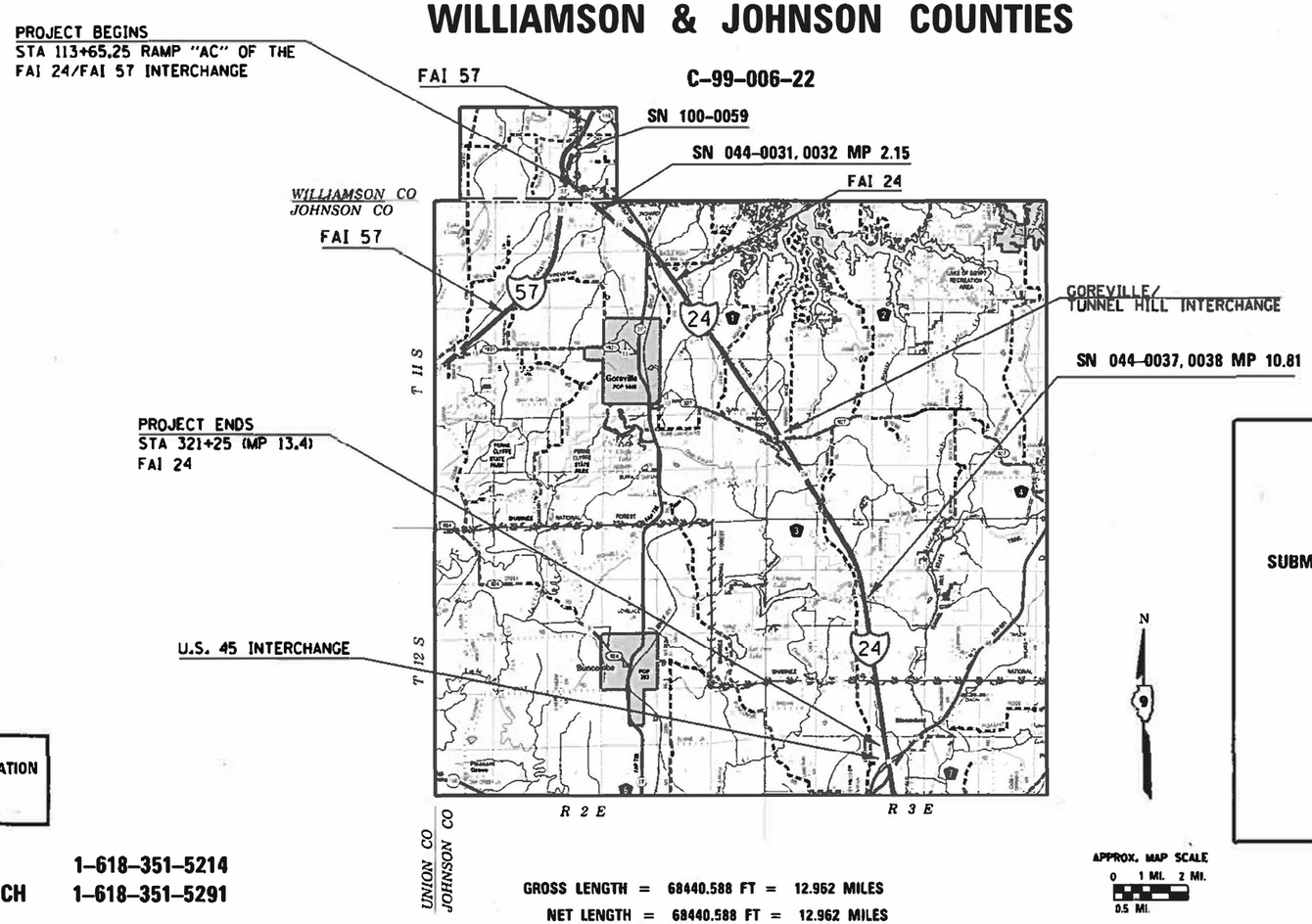
FOR INDEX OF SHEETS, SEE SHEET NO 3

FOR SUMMARY OF QUANTITIES, SEE SHEET NO 9

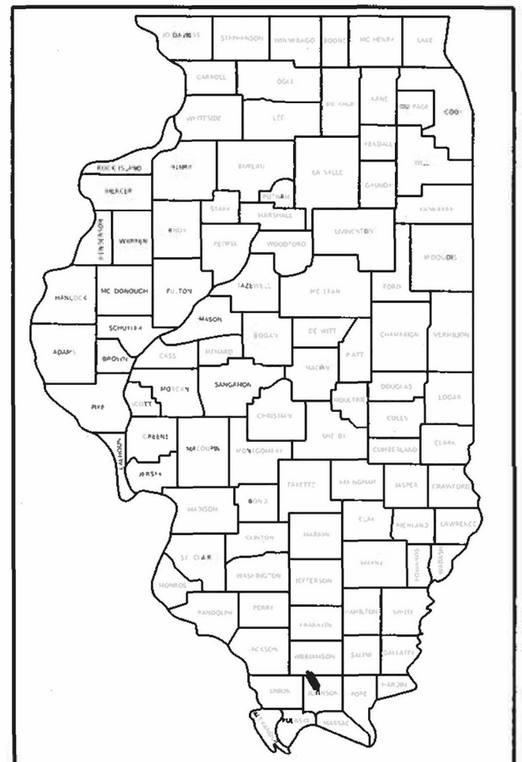
FOR STRUCTURAL PAVEMENT DESIGN INFORMATION, SEE SHEET NO NA

TRAFFIC DATA

SEE SHEET NO 7



GROSS LENGTH = 68440.588 FT = 12.962 MILES
NET LENGTH = 68440.588 FT = 12.962 MILES



LOCATION OF SECTION INDICATED THUS: –

TOWNSHIPS

WILLIAMSON COUNTY
SOUTHERN

JOHNSON COUNTY
GOREVILLE
TUNNEL HILL
BLOOMFIELD

DESIGN DESIGNATION : NA

COORDINATE SYSTEM : NA

POSTED SPEED : 75 MPH

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

PROJECT ENGINEER: VALERIE ROLLA 1-618-351-5214
PROJECT DESIGNER: DARRYL LEFTWICH 1-618-351-5291

CONTRACT NO. 78912

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 30 20 23
Kirk H Brown
REGION FIVE ENGINEER

May 12, 2023
Jon E. A. Clark
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023
Stephen McGraw
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

Prepared By: Charles Stein
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Dew
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: R C
DISTRICT OPERATIONS ENGINEER

Examined By: Douglas J Wellnitz
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Douglas J Wellnitz
DISTRICT CONSTRUCTION ENGINEER

Examined By: Aaron Young
DISTRICT MATERIALS ENGINEER

MODEL: Default
FILE NAME: pw:\\ildot.pw.bentley.com:PWIDOT\Documents\IDOT Offices\District 9\Projects\78912\CADD\Utils\CADsheets\D9_78912-Sheets.dgn

USER NAME = Darryl Leftwich	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in	CHECKED -	REVISED -	
PLOT DATE = 3/20/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SCALE: | SHEET OF SHEETS | STA. | TO STA

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	"	"	999	2
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

"X1-2.44-(2.3.4.5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

INDEX OF SHEETS

SHEET NO	DESCRIPTION	
1	COVER SHEET	
2	SIGNATURE SHEET	
3	INDEX OF SHEETS, HIGHWAY STANDARDS,	
4	GENERAL NOTES, HMA MIXTURE REQUIREMENTS	
5	ALIGNMENT DETAILS, BRIDGE & OMISSION DATA	
6	MTD CROSSONG RESTRICTION FOR BRIDGES & CULVERTS	
7	TRAFFIC DATA	
8	CURVE DATA	
9-17	SUMMARY OF QUANTITIES	
18	TYPICAL SECTION:	EB & WB I-24
19	TYPICAL SECTION:	INTERCHANGE RAMPS
20	TYPICAL SECTION:	CENTER LINE AND EDGE LINE REPAIR
21	SCHEDULES:	CLASS A PATCHING - CLASS B PATCHING
		CENTER LINE AND EDGE LINE REPAIR
22-25	SCHEDULES:	HMA RESURFACING
26-33	SCHEDULES:	PAVEMENT MARKING
33	SCHEDULES:	ILLINOIS STATE POLICE SPEED ZONE MARKINGS
34-37	SCHEDULES:	GUARDRAIL
38-39	PLAN SHEETS - I-57 / 1-24 INTERCHANGE	
40-41	PLAN SHEETS - I-24 / US 45 INTERCHANGE N VIENNA	
42-43	DETAILS:	REPAIR TO EAST END OF SN 044-2005
44	DETAILS:	SLOPE REPAIR AT SN 044-0030
45	DETAILS:	WIDE LOAD SIGNING PLAN
46	DETAILS:	MEDIAN CROSSOVERS FOR AUTHORIZED VEHICLES
47	DETAILS:	TYPICAL UNDERDRAIN OUTLET MARKER
48	DETAILS:	TEMPORARY HMA TRANSITIONS
49	DETAILS:	UNEVEN LANE SIGN
50-160	STRUCTURE REPAIR PLANS	

HIGHWAY STANDARDS

000001-08_STANDARD SYMBOLS ABBREVIATIONS & PATTERNS-001
001001-02_AREAS OF REINF REBARS
001006-00_DECIMAL OF INCH & FOOT
421201-07_24 FT CRC PVMT - WITH LUG SYSTEM
442001-04_CLASS A PATCHES
442101-09_CLASS B PATCHES
483001-06_PCC SHOULDER
601001-05_PIPE UNDERDRAINS
601101-02_CONCHDWFORPIPEUNDERDRAINS
630001-12_STEEL PLATE BEAM GUARDRAIL
630301-09_SHLD WIDEN FOR TYPE1 GRDRAIL TERMS
631011-10_TRAF BAR TERM TYPE 2
631026-06_TRAF BAR TERM TYPE 5

631031-18_TRAFBARTERMTYPE6
635001-02_DELINEATORS
642001-03_SHOULDER RUMBLE STRIP 16 IN
701101-05_OFF RD OP - MULTI LN - LESS THAN 15 FT TO EOP
701106-02_OFF RD OP - MULTI LN - MORE THAN 15 FT AWAY
701400-11_APPRCH TO LN CLOSURE - FRWAY EXPWAY
701401-13_LN CLOSURE FRWAY EXPWAY
701402-12_LN CLOSURE FRWAY EXPWAY WITH BARRIER
701406-13_LN CLOSURE FRWAY EXPWAY - DAY OP ONLY
701411-09_LN CLOSURE MULTI LN - ENTR OR EXIT RAMP 45 MPH OR MORE
701426-09_LN CLOSURE MULTI LN - INTERMITTANT OR MOVING OP 45 MPH OR MORE
701451-05_RAMP CLOSURE FREEWAY EXPRESSWAY
701456-05_PARTIAL EXIT RAMP CLOSURE FREEWAY EXPRESSWAY
701901-08_TRAF CNTRL DEVICES
725001-01_OBJECT AND TERMINAL MARKERS
780001-05_TYPICAL PVMT MRKINGS
781001-04_TYPICAL APP RAISED REFLC PVMT MRKRS
782006-01_GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 27-1_TRAFFIC BARRIER TERMINAL TYPE 5A
420001-10_PAVEMENT JOINTS
420401-13_PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03_PAVEMENT WELDED WIRE REINFORCEMENT
606001-08_CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
704001-08_TEMPORARY CONCRETE BARRIER

REV. - MS

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	DRAWN -	REVISED -	
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PLOT DATE = $DATE$	DATE -	REVISED -	

INDEX OF SHEETS
HIGHWAY STANDARDS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	3
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1
WILLIAMSON/JOHNSON

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.
ALL AGGREGATE	2.05 TONS/CU. YD.
RIPRAP	1.50 TONS/CU. YD.

THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 8%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.

THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE HMA SURFACE COURSE

THE CONTRACTOR SHALL STAMP STATIONING IN THE HOT MIX ASPHALT SURFACE AT 300 FT INTERVALS ON THE INSIDE EDGE OF THE OUTSIDE SHOULDER AND AS DIRECTED BY THE ENGINEER. THE STATION SYMBOL STAMPS USED SHALL BE FURNISHED BY THE CONTRACTOR. THEY SHALL BE 5 1/2 IN. TALL OF A DESIGN APPROVED BY THE ENGINEER, AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

EXISTING PIPE UNDERDRAIN OUTLETS IN THE FORESLOPES OR MEDIAN SLOPES SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO AN UNDERDRAIN OUTLET RESULTING FROM CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

LONGITUDINAL JOINT SEALANT SHALL BE PLACED UNDER THE HMA SURFACE COURSE

INCIDENTAL HOT-MIX ASPHALT SURFACING SHALL BE PAVED IN A SEPARATE OPERATION FROM THE MAINLINE PAVEMENT

COMMITMENTS: NONE

HMA MIXTURE REQUIREMENTS TABLES

The following HMA mixture requirements are applicable for this project

Locations	Hot-Mix Asphalt Surface Course
Mixture Use(s):	Polymerized Stone Matrix Asphalt, Surface, Mix E, N80
AB/PG:	SBS PG76-22
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:	PFP
Sublot Size:	1000 ton
Material Transfer Device	Yes, As per Special Provisions

Locations	Hot-Mix Asphalt Shoulders and Incidental Hot-Mix Asphalt Surfacing
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N70
AB/PG:	PG64-22
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	Mix C
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCP - 10' Shoulder QCQA - 6' Shoulder
Sublot Size:	1000 Ton QCP 3000 Ton QC/QA
Material Transfer Device	No

Locations	Center Line Repair
Mixture Use(s):	Hot-Mix Asphalt Binder Course, IL-19.0, N90
AB/PG:	SBS PG 76-22
Design Air Voids:	4.0 %, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-19.0
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QC/QA
Sublot Size:	3,000 tons
Material Transfer Device	Yes, as per special provisions

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USER NAME = Darryl.Leftwich	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/30/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
HMA MIXTURE REQUIREMENTS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	4
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**1X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

ALIGNMENT DETAILS

I-57 / I-24 INTERCHANGE

RAMP BC: SB I-57 TO EB 1-24

Ramp BC:	TO EB I-24								
STA	7+67.00	0	To	STA	21+59.54	=	1392.54	FT	
EQN STA	21+59.54	BC	=	STA	113+65.25	EB I-24			

RAMP CB: WB I-24 TO NB 1-57

Ramp CB:	TO SB I-57								
STA	6+55.10		To	STA	44+98.00	=	3842.90	FT	
EQN STA	6+55.10	CB	=	STA	31+51.83	RAMP CA			

RAMP AC: SB I-57 TO EB 1-24

						~MP
PROJECT BEGINS: RAMP AC BEGINS ==>			**STA**	**20+30.00**		**0.384**
RAMP AC: STA	20+30.00	To	STA	66+04.56		
EQN STA	66+04.56	CA =	STA	104+19.95	BL I-24	
	EB I-24 BEGINS ==>		STA	104+19.95	AH	1.251

RAMP CA: WB I-24 TO NB 1-57

~MP						
	RAMP CA: WORK BEGINS ==>		STA	38+75.00		
	STA	38+75.00	To	STA	6+09.57	
	EQN STA	6+09.57	CA =	STA	118+90.43	BL I-24
1.529	WB I-24 BEGINS ==>		STA	118+90.43	AH	

EAST BOUND LANES

EB I-24 BEGINS ==>		STA	104+19.95	AH	1.251	
EQN STA	333+27.60	BK =	STA	333+27.60	AH	5.589
EQN STA	429+45.71	BK =	STA	429+47.38	AH	7.411
EQN STA	524+83.61	BK =	STA	102+46.58	AH	9.217
EQN STA	133+54.22	BK =	STA	133+57.47	AH	9.806
EQN STA	288+00.86	BK =	STA	287+96.99	AH	12.731
PROJECT ENDS		==>	STA	320+50.00		**13.347**
			PROJECT TOTAL =			**12.962** Miles

WEST BOUND LANES

1.529	WB I-24 BEGINS ==>		STA	118+90.43	AH	
EQN STA	333+27.60	BK =	STA	1333+27.60	AH	
EQN STA	1429+60.80	BK =	STA	429+36.09	AH	
EQN STA	524+83.61	BK =	STA	102+46.58	AH	
EQN STA	133+63.21	BK =	STA	131+77.98	AH	
EQN STA	288+26.12	BK =	STA	288+23.31	AH	
	PROJECT ENDS	==>	STA	320+50.00		

GOREVILLE / TUNNEL HILL INTERCHANGE

Ramp D:	EB I-24 TO Tunnel Hill Rd								
STA	0+00.00		To	STA	11+12.00		1112.00	FT	
Ramp C:	Tunnel Hill Rd To EB I-24								
STA	0+10.13		To	STA	15+24.70		1514.57	FT	
							5967.10	FT	

Ramp A:	WB I-24 TO Tunnel Hill Rd								
STA	0+11.33		To	STA	14+96.00		1484.67	FT	
Ramp B:	Tunnel Hill Rd To WB I-24								
STA	0+00.00		To	STA	11+60.60		1160.60	FT	
							7108.33	FT	

BRIDGE & OMISSION DATA

EAST BOUND LANES

STRUCTURE	CONNECTOR STA *	APPROACH STA *	ABUTMENT STA *		ABUTMENT STA *	APPROACH STA *	CONNECTOR STA *	MP
SN 100-0060	**58+55.60**	58+75.60	58+95.60	TO STA	61+89.20	62+09.20	**62+29.20**	1.14
SN 044-0029	**147+59.20**	147+79.20	147+99.20	TO STA	154+94.50	155+14.50	**155+34.50**	2.15
SN 044-0037	**185+79.83**	185+99.83	186+19.83	TO STA	187+30.25	187+50.25	**187+70.25**	10.81

WEST BOUND LANES

STRUCTURE	CONNECTOR STA *	APPROACH STA *	ABUTMENT STA *		ABUTMENT STA *	APPROACH STA *	CONNECTOR STA *
SN 100-0059	**24+83.80**	25+03.80	25+23.80	TO STA	27+39.10	27+59.10	**27+79.10**
SN 044-0030	**147+58.70**	147+78.70	147+98.70	TO STA	154+95.00	155+15.00	**155+35.00**
SN 044-0038	**186+65.79**	186+85.79	187+05.79	TO STA	188+16.22	188+36.22	**188+56.22**

ALL STATIONING IS APPROXIMATE

OMISSIONS FOR THE ABOVE STRUCTURES IN THE ROADWAY PLANS WILL BE FROM OUT TO OUT OF THE CONNECTOR PAVEMENTS

MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS**
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

ALIGNMENT DETAILS
BRIDGE & ROADWAY PLANS OMISSION DATA

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	5
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

MTD CROSSING RESTRICTIONS TABLE - BRIDGES

ROUTE I-24 WILLIAMSON & JOHNSON CO							Report AASHTO SPAN	CULVERT FILL HEIGHT (OVERPASS CLEARANCE)	EXISTING ** PVMT THICK OVER CULVERT	Culvert Rating	MTD CROSSING RESTRICTIONS
STRUCTURE	FACILITY CARRIED	FEATURE CROSSED	STATION		MP			FOOT	FT-IN		
BRIDGE STRUCTURES											
PROJECT BEGINS					MP	0.38					
WILLIANSON COUNTY											
SN 100-0059	RAMP CB (I24 WB TO I57 SB)	I-57	STA	26+39.49	MP	1.14		NA	NA	NA	Emptied *
SN 100-0060	RAMP AC (I57 SB TO I24 EB)	I-57	STA	60+42.40	MP	1.14		NA	NA	NA	Emptied *
JOHNSON COUNTY - COUNTY LINE					MP	1.84					
SN 044-0029	I 24 EB	Pulley Mill Rd & Saline Creek	STA	151+46.85	MP	2.16		NA	NA	NA	Emptied *
SN 044-0030	I 24 WB	Pulley Mill Rd & Saline Creek	STA	151+46.85	MP	2.15		NA	NA	NA	Emptied *
SN 044-0037	I 24 EB	Bowman Bottoms Road	STA	186+75.04	MP	10.81		NA	NA	NA	Emptied *
SN 044-0038	I 24 WB	Bowman Bottoms Road	STA	187+61.01	MP	10.81		NA	NA	NA	Emptied *
✓ PROJECT ENDS					MP	13.39					

* Emptied MTD: Max Gross Weight <= 40 Tons

MTD CROSSING RESTRICTIONS TABLE - 2000 & 7000 SERIES CULVERTS

ROUTE I-24 WILLIAMSON & JOHNSON CO							Report AASHTO SPAN	EXIST FILL HEIGHT OVER CULVERT	EXISTING ** PVMT THICK OVER CULVERT	Culvert Rating	MTD CROSSING RESTRICTIONS
STRUCTURE	FACILITY CARRIED	FEATURE CROSSED	STATION		MP			FOOT	FT-IN		
JOHNSON COUNTY - COUNTY LINE					MP	1.84					
2000 CULVERTS											
SN 044-2005	I-24 EB & WB	DITCH	STA	30337	MP	5.00	22.00	87.0	0'-11¾"	6	Emptied *
7000 CULVERTS											
SN 044-7075	I-24 EB & WB	DITCH	STA	14315	MP	2.00	7.50	32'	0'-11¾"	6	Emptied *
SN 044-7076	I-24 EB & WB	DITCH	STA	18279	MP	2.70	6.00	10.0	0'-11¾"	7	Emptied *
SN 044-7077	I-24 EB & WB	DITCH	STA	21226	MP	3.30	7.00	23.6	0'-11¾"	6	Emptied *
SN 044-7078	I-24 EB & WB	DITCH	STA	37427	MP	6.40	10.00	60.0	0'-11¾"	6	Emptied *
SN 044-7079	I-24 EB & WB	DITCH	STA	39338	MP	6.70	12.00	72.0	0'-11¾"	6	Emptied *
SN 044-7080	I-24 EB & WB	DITCH	STA	11275	MP	9.40	8.00	75.0	0'-11¾"	7	Emptied *
SN 044-7101	I-24 WB	STREAM	STA	19269	MP	10.90	9.20	55+	0'-11¾"	?	Emptied *
SN 044-7081	I-24 EB & WB	DITCH	STA	23252	MP	11.70	8.00	49.5	0'-11¾"	7	Emptied *
SN 044-7094	I-24 WB	DITCH	STA	24122	MP	11.80	9.50	51.8	0'-11¾"	7	Emptied *
SN 044-7083	I-24 EB & WB	DITCH	STA	27314	MP	12.45	7.50	17.5	0'-11¾"	6	Emptied *
SN 044-7084	I-24 EB & WB	DITCH	STA	31866	MP	13.30	8.40	27.5	0'-11¾"	6	Emptied *
PROJECT ENDS					MP	13.39					

* Emptied MTD: Max Gross Weight <= 40 Tons

** EXISTING: Most Culverts have 11¾" (8" CRC & 3¾" HMA) of existing Pavement over them.
There is 4" of Aggregate Subbase beneath the Existing CRC Pavement

MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

MTD CROSSING RESTRICTIONS FOR BRIDGES AND CULVERTS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	6
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TRAFFIC DATA

TRAFFIC DATA FOR DESIGN

COUNTY:	100 WILLIAMSON/ 044 JOHNSON		CITY:	RURAL	
COUNT YR.	2022	CONST. YR.		K-FACTOR:	0.09

LEG A: FAI 57 SB STA 1.87-0.95
I57 SB IN FAI 57 SB FROM N REFUGE RD TO FAI 24

			2022		10	20
				0.000	0.000	0.000
		P.V.s	9,550	-	-	-
EX. FAC.:	1.50%	S.U.s	550	-	-	-
		M.U.s	6500	-	-	-
		ADT	16,600	-	-	-
		DHV	1,495	-	-	-

LEG A: FAI 57 NB STA 0.95-1.87
I57 NB OUT FAI 57 NB FROM FAI 24 TO N REFUGE RD

			2022		10	20
				0.000	0.000	0.000
		P.V.s	10,850	-	-	-
EX. FAC.:	1.50%	S.U.s	750	-	-	-
		M.U.s	7,200	-	-	-
		ADT	18,800	-	-	-
		DHV	1,690	-	-	-

LEG B: FAI 57 SB STA 4.25-0.70
I57 SB OUT FAI 57 SB FROM WILLIAMSON/JOHNSON CO LINE TO GOREVILLE RD

			2022		10	20
				0.000	0.000	0.000
		P.V.s	4,875	-	-	-
EX. FAC.:	1.00%	S.U.s	225	-	-	-
		M.U.s	3,800	-	-	-
		ADT	8,900	-	-	-
		DHV	800	-	-	-

LEG B: FAI 57 NB STA 0.70-4.25
I57 NB IN FAI 57 NB FROM GOREVILLE RD TO WILLIAMSON/JOHNSON CO LINE

			2022		10	20
				0.000	0.000	0.000
		P.V.s	4,600	-	0	0
EX. FAC.:	1.00%	S.U.s	300	-	0	0
		M.U.s	3,100	-	0	0
		ADT	8,000	-	-	-
		DHV	720	0	-	-

LEG C: FAI 24 WB STA 12.05-0.00
I24 WB IN FAI 24 WB FROM US 45 TO WILLIAMSON/JOHNSON CO LINE

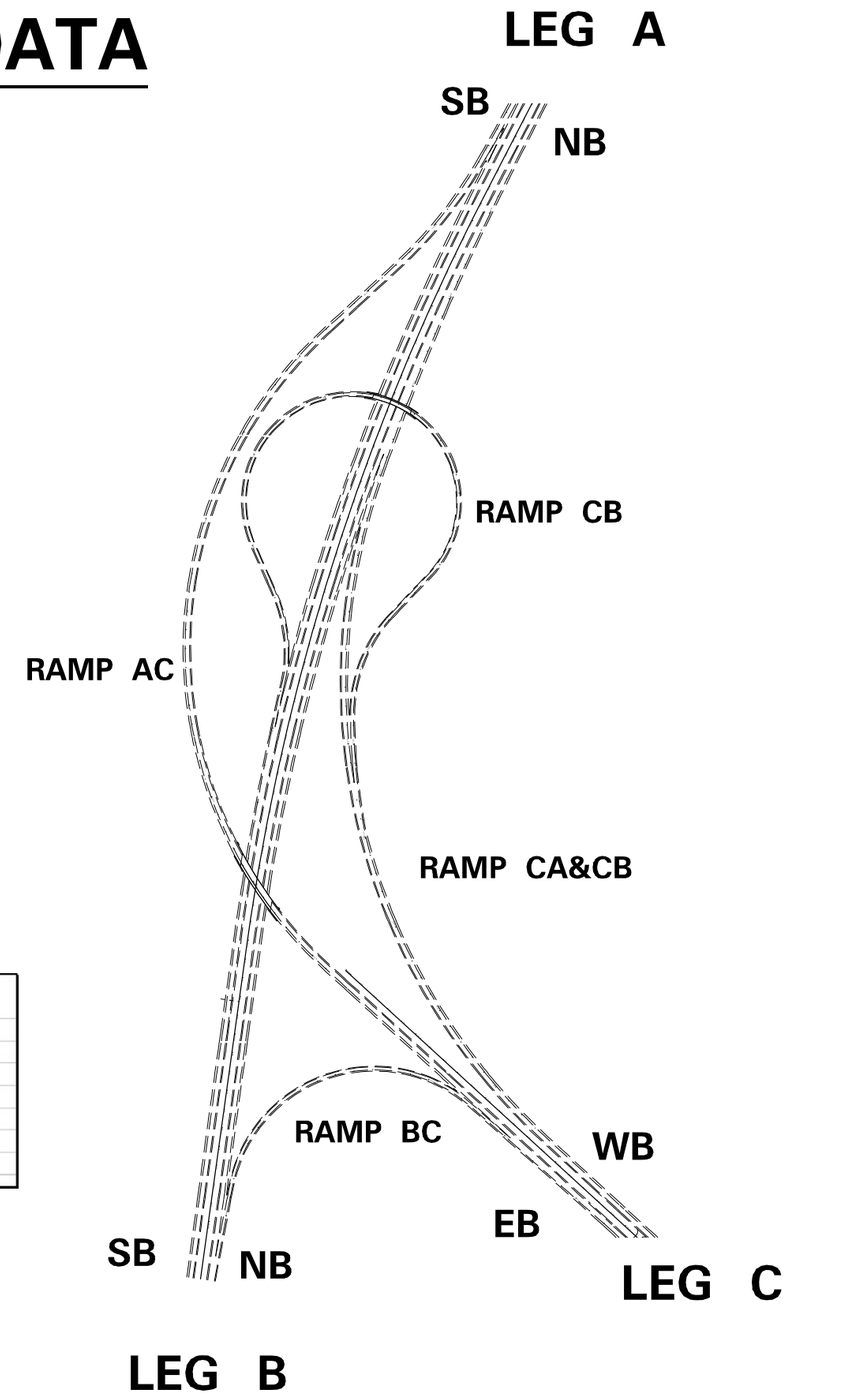
			2022		10	20
				0.000	0.000	0.000
		P.V.s	6,550	-	-	-
EX. FAC.:	1.00%	S.U.s	350	-	-	-
		M.U.s	3,800	-	-	-
		ADT	10,700	-	-	-
		DHV	965	-	-	-

LEG C: FAI 24 EB STA 0.00-12.05
I24 EB OUT FAI 24 SB FROM WILLIAMSON/JOHNSON CO LINE TO GOREVILLE RD

			2022		10	20
				0.000	0.000	0.000
		P.V.s	6,650	-	0	0
EX. FAC.:	1.00%	S.U.s	350	-	0	0
		M.U.s	3,800	-	0	0
		ADT	10,800	-	-	-
		DHV	970	0	-	-

I-57 / I-24 INTERCHANGE TRAFFIC DATA

2022	Ramp AC	Ramp CA	Ramp BC	Ramp CB
P.V.s	6,650	6,550	100	53
S.U.s	350	350	10	7
M.U.s	3,800	3,800	40	40
ADT	10,800	10,700	150	100
DHV	970	965	15	10



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	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/30/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC DATA

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	7
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1
WILLIAMSON/JOHNSON

MODEL: Default
FILE NAME: p:\stilled-pw.bentley.com:PWROOT\Documents\IDOT Offices\District 9\Projects\78912\CADData\CADSheets\D9_78912-Sheets.dgn

CURVE DATA

(SUPER ELEVATION RATES)

EXIST. CURVE RAMP_AC_7
PI STA. = 53+05.93
Δ = 95° 04' 53" (LT)
D = 2° 30' 00"
R = 2,291.91'
T = 2,504.74'
L = 3,803.38'
E = 1,103.17'
e = 0.07 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 28+01.18
P.T. STA. = 66+04.56

EXIST. CURVE RAMP_BC_3
PI STA. = 19+86.14
Δ = 120° 16' 42" (RT)
D = 7° 29' 58"
R = 764.00'
T = 1,330.74'
L = 1,603.83'
E = 770.46'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 6+55.40
P.T. STA. = 22+59.23

EXIST. CURVE RAMP_CA_1
PI STA. = 27+65.01
Δ = 66° 32' 07" (RT)
D = 1° 44' 38"
R = 3,285.38'
T = 2,155.44'
L = 3,815.18'
E = 643.95'
e = 0.05 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 6+09.57
P.T. STA. = 44+24.75

EXIST. CURVE RAMP_CB_3
PI STA. = 3+27.08
Δ = 11° 26' 14" (RT)
D = 1° 45' 44"
R = 3,251.41'
T = 325.60'
L = 649.04'
E = 16.26'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 0+01.48
P.T. STA. = 6+50.52

EXIST. CURVE RAMP_CB_6
PI STA. = 9+58.73
Δ = 43° 51' 49" (RT)
D = 7° 29' 06"
R = 765.47'
T = 308.21'
L = 586.02'
E = 59.72'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 6+50.52
P.T. STA. = 12+36.54

EXIST. CURVE RAMP_CB_6
PI STA. = 19+07.32
Δ = 68° 25' 34" (LT)
D = 9° 59' 38"
R = 573.31'
T = 389.81'
L = 684.68'
E = 119.97'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 15+17.51
P.T. STA. = 22+02.19

EXIST. CURVE RAMP_CB_12
PI STA. = 30+62.33
Δ = 112° 22' 31" (LT)
D = 9° 56' 52"
R = 575.96'
T = 859.96'
L = 1,129.64'
E = 459.05'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 22+02.38
P.T. STA. = 33+32.02

EXIST. CURVE RAMP_CB_13
PI STA. = 37+07.84
Δ = 66° 35' 51" (LT)
D = 10° 00' 50"
R = 572.16'
T = 375.82'
L = 665.05'
E = 112.39'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 33+32.02
P.T. STA. = 39+97.06

EXIST. CURVE RAMP_CB_16
PI STA. = 45+31.57
Δ = 36° 40' 57" (RT)
D = 6° 55' 47"
R = 826.81'
T = 274.10'
L = 529.35'
E = 44.25'
e = 0.08 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 42+57.47
P.T. STA. = 47+86.82

MEDIAN MP 3.5
EXIST. CURVE I_24MED4_6
PI STA. = 213+20.44
Δ = 18° 13' 51" (RT)
D = 0° 29' 50"
R = 11,520.95'
T = 1,848.54'
L = 3,665.84'
E = 147.36'
e = REMOVE CROWN
T.R. = ____
S.E. RUN = ____
P.C. STA. = 194+71.90
P.T. STA. = 231+37.73

WB MP 5.75
EXIST. CURVE I_24F_3
PI STA. = 1342+21.97
Δ = 5° 59' 20" (LT)
D = 0° 20' 15"
R = 16,973.76'
T = 887.89'
L = 1,774.16'
E = 23.21'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 1333+34.08
P.T. STA. = 1351+08.24

WB MP 6.4
EXIST. CURVE I_24F_6
PI STA. = 1375+66.58
Δ = 10° 58' 30" (RT)
D = 0° 19' 53"
R = 17,295.53'
T = 1,661.56'
L = 3,312.95'
E = 79.63'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 1359+05.02
P.T. STA. = 1392+17.97

WB MP 7.0
EXIST. CURVE I_24F_9
PI STA. = 1406+37.94
Δ = 1° 46' 23" (LT)
D = 0° 11' 05"
R = 31,029.17'
T = 480.15'
L = 960.23'
E = 3.71'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 1401+57.79
P.T. STA. = 1411+18.02

WB MP 10.6
EXIST. CURVE I_24C_3
PI STA. = 172+61.16
Δ = 26° 16' 38" (RT)
D = 0° 40' 03"
R = 8,582.65'
T = 2,003.34'
L = 3,936.19'
E = 230.71'
e = 0.02 FT/FT
T.R. = ____
S.E. RUN = ____
P.C. STA. = 152+57.83
P.T. STA. = 191+94.02

WB MP 12.5
EXIST. CURVE I_24C_6
PI STA. = 276+77.07
Δ = 3° 43' 15" (LT)
D = 0° 09' 43"
R = 35,399.01'
T = 1,149.86'
L = 2,298.91'
E = 18.67'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 265+27.20
P.T. STA. = 288+26.12

EB MP 7.25
EXIST. CURVE I_24E_3
PI STA. = 420+60.49
Δ = 3° 13' 11" (RT)
D = 0° 10' 55"
R = 31,513.26'
T = 885.69'
L = 1,770.91'
E = 12.44'
e = NC
T.R. = ____
S.E. RUN = ____
P.C. STA. = 411+74.80
P.T. STA. = 429+45.71

EB MP 10.25
EXIST. CURVE I_24D_1
PI STA. = 156+51.45
Δ = 22° 35' 13" (RT)
D = 0° 29' 56"
R = 11,487.12'
T = 2,293.98'
L = 4,528.39'
E = 226.81'
e = REMOVE CROWN
T.R. = ____
S.E. RUN = ____
P.C. STA. = 133+57.47
P.T. STA. = 178+85.86

MODEL: $MODELNAME$
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	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURVE DATA

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	8
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	WILLIAMSON CO FAI 24 90% FEDERAL 10% STATE RURAL ROADWAY 0005	JOHNSON CO FAI 24 90% FEDERAL 10% STATE RURAL ROADWAY 0005	WILLIAMSON CO FAI 24 90% FEDERAL 10% STATE BRIDGE REHABILITATION 0047	JOHNSON CO FAI 24 90% FEDERAL 10% STATE BRIDGE REHABILITATION 0047
28100805	STONE DUMPED RIPRAP, CLASS A3	TON	35		35		
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	127		127		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	271,347	21,213	250,134		
40600372	LONGITUDINAL JOINT SEALANT, HALF-WIDTH	FOOT	247,169	7,397	239,772		
40600990	TEMPORARY RAMP	SQ YD	3,034	445	2,589		
40605024	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "E", N80	TON	30,884	2,502	28,304	78	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	144	25	119		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	604,392	47,133	557,259		
44004250	PAVED SHOULDER REMOVAL	SQ YD	4,433				4,433
44200050	WELDED WIRE REINFORCEMENT	SQ YD	850	294	[illegible]		556
44200573	CLASS A PATCHES, TYPE I, 12 INCH	SQ YD	8	4	4		
44200577	CLASS A PATCHES, TYPE II, 12 INCH	SQ YD	580	66	514		
44200581	CLASS A PATCHES, TYPE III, 12 INCH	SQ YD	249	20	229		
44200583	CLASS A PATCHES, TYPE IV, 12 INCH	SQ YD	435	[illegible]	435		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 1 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	9
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
44200990	CLASS B PATCHES, TYPE I, 12 INCH	SQ YD	4		4		
44200994	CLASS B PATCHES, TYPE II, 12 INCH	SQ YD	820	397	423		
44200998	CLASS B PATCHES, TYPE III, 12 INCH	SQ YD	176	76	76		
44201000	CLASS B PATCHES, TYPE IV, 12 INCH	SQ YD	239	239			
44201298	DOWEL BARS 1 1/4"	EACH	2,311	1,208	1,103		
44213000	PATCHING REINFORCEMENT	SQ YD	1,272	90	1,182		
44213200	SAW CUTS	FOOT	11,961	3,662	8,299		
44213204	TIE BARS 3/4"	EACH	156	42	114		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	2,244	207	2,037		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	19,995	1,452	18,543		
48300415	PORTLAND CEMENT CONCRETE SHOULDERS 9 3/4"	SQ YD	4,391				4,391
50102400	CONCRETE REMOVAL	CU YD	231.8			7.6	224.2
50157300	PROTECTIVE SHIELD	SQ YD	336				336
50200100	STRUCTURE EXCAVATION	CU YD	507				507
50300100	FLOOR DRAINS	EACH	200				200

REV. - MS

SUMMARY OF QUANTITIES - CONT

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
50300225	CONCRETE STRUCTURES	CU YD	176.9				176.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	241.8			8.1	233.7
50300300	PROTECTIVE COAT	SQ YD	8,744			28	8,716
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	227				227
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	22,280				22,280
50500505	STUD SHEAR CONNECTORS	EACH	96			72	24
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	162,780		4,500	2,100	156,180
50800515	BAR SPLICERS	EACH	1,768				1,768
52000110	PREFORMED JOINT STRIP SEAL	FOOT	220.0			58.0	162.0
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	380				380
54003000	CONCRETE BOX CULVERTS	CU YD	118		118		
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	481				481
58700300	CONCRETE SEALER	SQ FT	3,054				3,054
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	204				204

REV. - MS

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PLOT DATE = 3/30/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 3 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	11
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

	CODE NUMBER	ITEM DESCRIPTION	UNIT	COUNTY:	WILLIAMSON CO	JOHNSON CO	WILLIAMSON CO	JOHNSON CO
				ROUTE:	FAI 24	FAI 24	FAI 24	FAI 24
				FUNDING:	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				LOCATION:	RURAL	RURAL	BRIDGE REHABILITATION	BRIDGE REHABILITATION
				TOTAL QUANTITY	ROADWAY 0005	ROADWAY 0005	0047	0047
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	16				16
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	420				420
	60600605	CONCRETE CURB, TYPE B	FOOT	150	30	120		
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	9,507	1,268	8,239		
*	63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	12,439		12,439		
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	22	4	18		
*	63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	3		3		
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	10	2	8		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	29	6	23		
	63200310	GUARDRAIL REMOVAL	FOOT	24,070	1,680	22,390		
*	63500105	DELINEATORS	EACH	562	123	439		
	64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	274,577	24,407	250,170		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	29	6	23		
	67100100	MOBILIZATION	L SUM	1	0	1		
	70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	4		4		

* SPECIALTY ITEM

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PLOT DATE = 3/30/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 4 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	12
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	WILLIAMSON CO FAI 24 90% FEDERAL 10% STATE BRIDGE REHABILITATION 0047	JOHNSON CO FAI 24 90% FEDERAL 10% STATE BRIDGE REHABILITATION 0047
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	7	3	4		
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0	1		
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	0	1		
70100820	TRAFFIC CONTROL AND PROTECTION, STANDARD 701451	L SUM	1	0	1		
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1	0	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	40	10	30		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	14	42		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	35,692	3,172	32,520		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	11,895	1,057	10,838		
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	84		84		
70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	309,023	27,536	281,487		
70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	3,502	1,524	1,978		
70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	573	165	408		
70300281	TEMPORARY PAVEMENT MARKING - LINE 24"- PAINT	FOOT	70		70		

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	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/30/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 5 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	13
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	2,928				2,928
	70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	32				32
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2,928				2,928
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4				4
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4				4
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	29	6	23		
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	898		898		
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	309,023	27,536	281,487		
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	3,502	1,524	1,978		
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	669	165	504		
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	70		70		
*	78011000	GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS	SQ FT	898		898		
*	78011035	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	309,023	27,536	281,487		
*	78011045	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	3,502	1,524	1,978		

* SPECIALTY ITEM

REV. - MS

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PLOT DATE = 3/30/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 6 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	14
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
*	78011065	GROOVING FOR RECESSED PAVEMENT MARKING 13"	FOOT	669	165	504		
*	78011125	GROOVING FOR RECESSED PAVEMENT MARKING 25"	FOOT	70		70		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1,708	210	1,486		12
*	78112000	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4				4
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	218	26	192		
*	78200010	BARRIER WALL REFLECTORS, TYPE B	EACH	74				74
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1,712	210	1,486		16
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	157,643	14,949	142,694		
	X0322278	RODENT SHIELDS	EACH	407	81	326		
	X0324028	GROUT FOR USE WITH RIPRAP	CU YD	28		28		
	X0325748	ACRYLIC COATING	SQ YD	7				7
	X0325749	FIBER WRAP	SQ FT	31				31
	X2503100	MOWING	UNIT	685	137	548		
	X0328031	HOT-MIX ASPHALT CENTER LINE REPAIR, 3¾"	SQ YD	20,083	700	19,383		

* SPECIALTY ITEM

REV. - MS

SUMMARY OF QUANTITIES - CONT

	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
	X4201410	BRIDGE APPROACH PAVEMENT CONNECTOR (SPECIAL)	SQ YD	755				755
	X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	4,752				4,752
	X6350120	DELINEATOR REMOVAL	EACH	562	123	439		
	Z0001903	STRUCTURAL STEEL REMOVAL	POUND	14,100				14,100
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	642				642
	Z0006021	BRIDGE DECK LATEX CONCRETE OVERLAY, 3 1/4 INCHES	SQ YD	6,672				6,672
*	Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1				1
*	Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1				1
*	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1				1
*	Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1				1
	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	848			848	
	Z0012148	BRIDGE DECK SCARIFICATION 3"	SQ YD	6,672				6,672
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	222				222
	Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	26				26

* SPECIALTY ITEM

REV. - MS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 8 OF 9

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	16
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SUMMARY OF QUANTITIES - CONT

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: RURAL ROADWAY 0005	COUNTY: WILLIAMSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047	COUNTY: JOHNSON CO ROUTE: FAI 24 FUNDING: 90% FEDERAL 10% STATE LOCATION: BRIDGE REHABILITATION 0047
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	82				82
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	10				10
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	7,684				7,684
Z0034105	MATERIAL TRANSFER DEVICE	TON	35,024	2,649	32,375		
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	82				82
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	9				9
Z0065700	SLOPE WALL REPAIR	SQ YD	7				7
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	3				3
Ø Z0076600	TRAINEES	HOUR	1000	1000			
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	24				24
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000	1000			

Ø 0042

REV. - MS

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PLOT DATE = 3/30/2023	DATE -	REVISED -	

SUMMARY OF QUANTITIES
SHEET 9 OF 9

SCALE: | SHEET OF SHEETS | STA. TO STA.

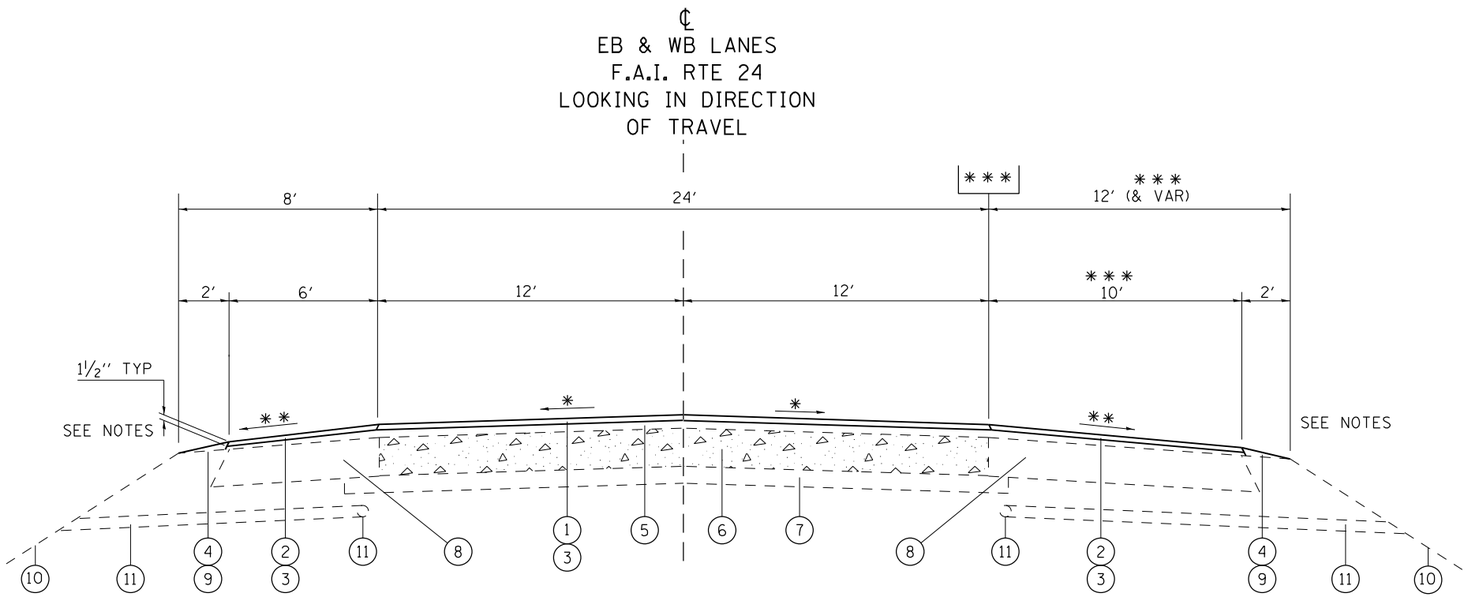
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	17
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TYPICAL SECTION – MAINLINE I–24

DRAWING NOT TO SCALE



1. PROP HMA SURFACE COURSE, (1½″)
2. PROP HMA SHOULDERS, (1½″)
3. PROP HMA SURFACE REMOVAL, 1½″
4. PROP AGGREGATE WEDGE SHOULDERS, TYPE B (AS DIRECTED BY THE ENGINEER)
5. EXIST HMA PAVEMENT 3¾″ (1½ SURFACE & 2¼″ BINDER)
6. EXIST 8″ CRC PAVEMENT
7. EXIST 4″ STABILIZED SUB-BASE (BITUMINOUS AGGREGATE MIXTURE)
8. EXIST HMA SHOULDERS
9. EXIST AGGREGATE SHOULDER
10. EXIST GROUNDLINE
11. EXIST PIPE UNDERDRAINS

* MATCH EXISTING SLOPE, 1.5% TYP

** MATCH EXISTING SLOPE, 4.167% TYP

*** RAMP MERGE AND DEPARTURE AREAS AT INTERCHANGES WILL HAVE ADDITIONAL PAVEMENT OF VARYING WIDTH AS RAMPS TIE INTO THE MAINLINE PAVEMENT. OUTSIDE SHOULDERS ARE TYPICALLY 6 FT AT THESE LOCATIONS.

TO BE USED

									3265.43 FT	RAMP CA:	STA	6+09.57		(MP = 1.53)	TO STA	38+75.00		(MP = 0.91)
EB I-24:	STA	113+65.25		(MP = 1.43)	TO STA	333+27.60	BK	(MP = 5.59)	21962.35 FT	21437.17 FT	WB I-24:	STA	118+90.43		(MP = 1.53)	TO STA	333+27.60	BK	(MP = 1.53)
EB I-24:	STA	333+27.60	AH	(MP = 5.59)	TO STA	429+45.71	BK	(MP = 7.41)	9618.11 FT	9633.20 FT	WB I-24:	STA	1333+27.60	AH	(MP = 5.59)	TO STA	1429+60.80	BK	(MP = 7.41)
EB I-24:	STA	429+47.38	AH	(MP = 7.41)	TO STA	524+83.61	BK	(MP = 9.22)	9536.23 FT	9547.52 FT	WB I-24:	STA	429+36.09	AH	(MP = 7.41)	TO STA	524+83.61	BK	(MP = 9.22)
EB I-24:	STA	102+46.58	AH	(MP = 9.22)	TO STA	133+54.22	BK	(MP = 9.81)	3107.64 FT	3116.63 FT	WB I-24:	STA	102+46.58	AH	(MP = 9.22)	TO STA	133+63.21	BK	(MP = 9.81)
EB I-24:	STA	133+57.47	AH	(MP = 9.81)	TO STA	288+00.86	BK	(MP = 12.73)	15443.39 FT	15648.14 FT	WB I-24:	STA	131+77.98	AH	(MP = 9.81)	TO STA	288+26.12	BK	(MP = 12.73)
EB I-24:	STA	287+96.99	AH	(MP = 12.73)	TO STA	320+50.00		(MP = 13.35)	3253.01 FT	3226.69 FT	WB I-24:	STA	288+23.31	AH	(MP = 12.73)	TO STA	320+50.00		(MP = 13.35)
									62920.73 FT	69140.21 FT									
									11.92 Miles	13.09 Miles									

BRIDGE OMISSIONS THIS TYPICAL

RAMP AC:	STA	58+36.93		(MP = 1.11)	TO STA	62+46.16		(MP = 1.18)	SN 100-0060										
EB I-24:	STA	147+59.20		(MP = 1.89)	TO STA	155+34.50		(MP = 2.04)	SN 044-0029	SN 044-0030	WB I-24:	STA	147+58.70		(MP = 2.07)	TO STA	155+35.00		(MP = 2.22)
EB I-24:	STA	185+73.30		(MP = 10.79)	TO STA	187+76.78		(MP = 10.83)	SN 044-0037	SN 044-0038	WB I-24:	STA	186+65.79		(MP = 10.85)	TO STA	188+56.22		(MP = 10.88)

SEE ALSO: DETAIL FOR CENTERLINE PATCHING

NOTES

VARIOUS LOCATIONS WITHIN THE PROJECT LIMITS CONTAIN GUARDRAIL AT SHOULDER EDGE WITH CURB BELOW

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	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
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PLOT DATE = $DATE$	DATE -	REVISED -	

TYPICAL SECTION
I–24 EAST BOUND & WEST BOUNDS LANES

SCALE: | SHEET OF SHEETS | STA. TO STA.

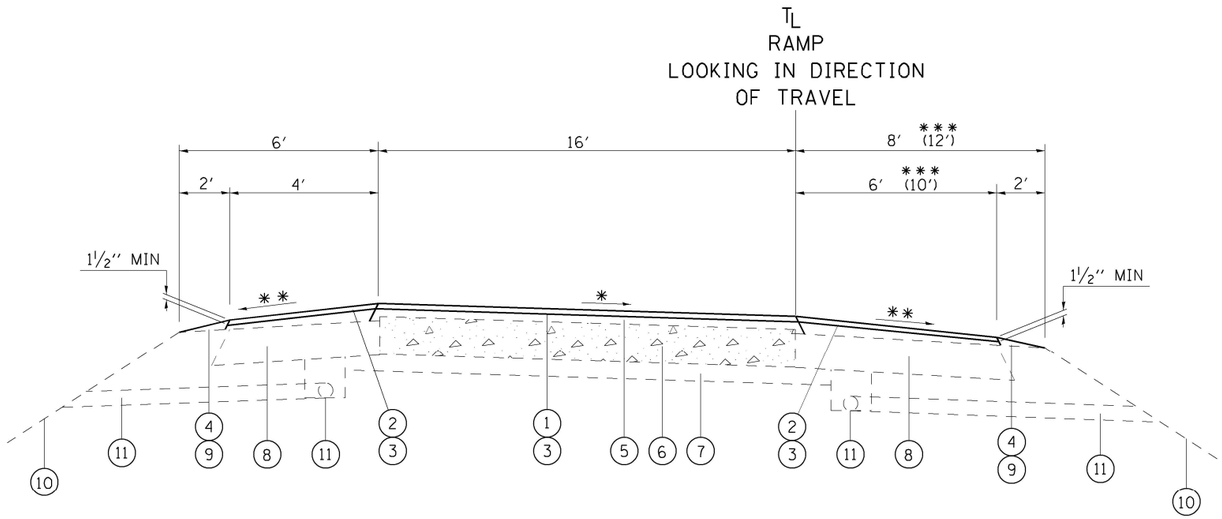
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	18
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TYPICAL SECTION – RAMPS

DRAWING NOT TO SCALE



① PROP HMA SURFACE COURSE, (1½″)
② PROP HMA SHOULDERS, (1½″)
③ PROP HMA SURFACE REMOVAL, 1½″
④ PROP AGGREGATE SHOULDERS, TYPE B (WEDGE) (AS DIRECTED BY THE ENGINEER)
⑤ EXIST HMA PAVEMENT 3¾″ (1½ SURFACE & 2¼″ BINDER)
⑥ EXIST 8″ PCC PAVEMENT
⑦ EXIST 4″ STABILIZED SUB-BASE (BITUMINOUS AGGREGATE MIXTURE)
⑧ EXIST HMA SHOULDERS
⑨ EXIST AGGREGATE SHOULDER
⑩ EXIST GROUNDLINE
⑪ EXIST PIPE UNDERDRAINS

* MATCH EXISTING SLOPE, 1.5% TYP
** MATCH EXISTING SLOPE, 4.167% TYP
*** FOR STATION LOCATIONS HAVING 10′ OUTSIDE SHOULDERS, SEE CHART BELOW

TO BE USED

1-57 / I-24 INTERCHANGE

RAMP CB:	STA	6+55.10	TO STA	44+98.00	3842.90 FT
RAMP BC:	STA	7+67.00	TO STA	21+59.54	1392.54 FT

GOREVILLE / TUNNEL HILL INTERCHANGE

RAMP A:	STA	0+11.40	TO STA	14+96.00	1484.60 FT
RAMP B:	STA	0+00.00	TO STA	11+60.60	1160.60 FT
RAMP C:	STA	0+10.13	TO STA	15+24.70	1514.57 FT
RAMP D:	STA	0+00.00	TO STA	11+12.00	1112.00 FT
					10507.21 FT

BRIDGE OMISSIONS THIS TYPICAL 1-57 / I-24 INTERCHANGE

SN 100-0059	RAMP CB:	STA	24+83.80	TO STA	27+79.10

*** EXIST 10' HMA SHOULDERS GOREVILLE / TUNNEL HILL INTERCHANGE (RT SIDE ONLY)

RAMP A:	STA	0+11.40	TO STA	10+50.00	1038.60 FT
RAMP B:	STA	2+85.38	TO STA	11+60.60	875.22 FT
RAMP C:	STA	0+10.13	TO STA	17+00.00	1689.87 FT
RAMP D:	STA	5+16.20	TO STA	11+12.00	595.80 FT
					4199.49 FT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
I–24 INTERCHANGE RAMPS

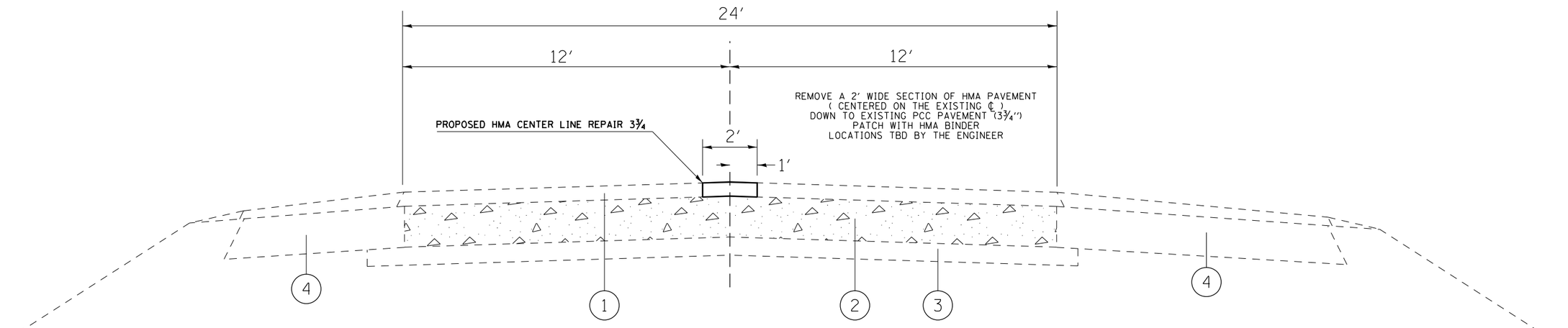
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	19
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

CENTER LINE REPAIR



AT LOCATIONS TO BE DETERMINED BY THE ENGINEER

① EXIST HMA PAVEMENT 3¾" (1½ SURFACE & 2¼" BINDER)
② EXIST 8" CRC PAVEMENT
③ EXIST 4" STABILIZED SUB-BASE (BITUMINOUS AGGREGATE MIXTURE)
④ EXIST HMA SHOULDERS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CENTER LINE REPAIR

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	20
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

PAVEMENT PATCHING - CLASS A - PROJECT TOTALS

PAVEMENT PATCHING - CLASS A					CLASS A PATCHING				ADDITIONAL QUANTITIES FOR CLASS A PAVEMENT PATCHING		
PATCH NO	MP LANE	WIDTH FT	LENGTH FT	TOTAL AREA SQ YD	PVMT PATCHES TY I-12" SQ YD	PVMT PATCHES TY II-12" SQ YD	PVMT PATCHES TY III-12" SQ YD	PVMT PATCHES TY IV-12" SQ YD	SAW CUTS FOOT	TIE BARS EACH	PATCHING REINFORCEMENT SQ YD
	EAST BOUND LANES TOTAL				4	329	83	85	2812	44	501
	WEST BOUND LANES TOTAL				4	251	166	350	3367	70	771
	I-24 CLASS A PATCHING TOTALS				**8**	**580**	**249**	**435**	**6179**	**114**	**1272**
	BY COUNTY										
	WILLIAMSON				4	66	20		549		90
	JOHNSON				4	514	229	435	5630	114	1182
	TOTAL				**8**	**580**	**249**	**435**	**6179**	**114**	**1272**

CLASS A PATCH LOCATIONS TO BE DETERMINED BY THE ENGINEER

PAVEMENT PATCHING - CLASS B - RAMPS

PATCHING SURVEY ESTIMATES DETAILS				PATCH	CLASS B PATCHING				ADDITIONAL QUANTITIES FOR CLASS B PAVEMENT PATCHING			
PATCH NO	MP LANE	WIDTH FT	LENGTH FT	TOTAL AREA SQ YD	**PVMT** PATCHES TY I-12" SQ YD	PVMT PATCHES TY II-12" SQ YD	PVMT PATCHES TY III-12" SQ YD	PVMT PATCHES TY IV-12" SQ YD	* SAW CUTS FOOT	DOWEL BARS EACH	TIE BARS EACH	WELDED WIRE REINFORCEMENT SQ YD
	INTERCHANGE RAMP TOTALS				**4**	**820**	**76**	**239**	**5782**	**2311**	**42**	**294**
	BY COUNTY											
	WILLIAMSON					397	76	239	3113	1208	42	294
	JOHNSON				4	423			2669	1103		
	TOTAL				**4**	**820**	**76**	**239**	**5782**	**2311**	**42**	**294**

CLASS B PATCH LOCATIONS TO BE DETERMINED BY THE ENGINEER

I-24 CENTER LINE AND EDGE LINE REPAIR - TOTALS
(HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90)

LOCATION	REPAIR LENGTHS			LENGTH TOTAL	SQ YD
	LEFT EP	CL	RIGHT EP		
I-24 EB LANES	1114	25679	30502	57294	12733
I-24 WB LANES		23981	9092	33073	7350
			PROJECT TOTAL	90367	20083

BY COUNTY	SQ YD
WILLIAMSON	700
JOHNSON	19383
	20083

REPAIR LOCATIONS TO BE DETERMINED BY THE ENGINEER

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PLOT DATE = 5/1/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLASS A PATCHING – CLASS B PATCHING
CENTER LINE AND EDGE LINE REPAIR

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	21
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 HMA PAVING - EAST BOUND LANES

FAI-24 - Mainline		MP	COMMENTS	SECTION LENGTH (INFO ONLY)	HMA SURF REMOVAL 1½"	HMA SURFACE 1½"	HMA SHLDS 1½"	AGG SHLD WEDGE	POLY BIT MATLS TACK CT	LONG JOINT SEALANT HALF-WIDTH	MATERIAL TRANSFER DEVICE	TEMP RAMPS	INCIDENTAL HMA SURFACE 1½"
				FEET	SQ YD	TON	TON	TON	POUND	FOOT	TON	SQ YD	TON
I-24 EB LANES - RURAL													
PROJECT BEGINS STA	113+65.25 BK		I-24 EB LANES BEGIN									27	
STA 113+65.25 TO STA	124+20.00		**Entrance Ramp BC Merge Area**	1054.8	5615	344	129	17	2527	2110	344	**117**	
STA 124+20.00 TO STA	125+90.00			170.0	756	38	25	3	340	340	38		
STA 125+90.00 TO STA	125+90.00	1.662	Median Crossover		**292**				132				**25**
STA 125+90.00 TO STA	134+16.74			826.7	3674	186	123	13	1653	1653	186		
STA 134+16.74 TO STA	134+16.74	1.818	County Line										
STA 134+16.74 TO STA	147+59.20			1342.5	5966	302	200	21	2685	2685	302		
STA 147+59.20 TO STA	147+99.20		Connector Pvmt & Approach Slab	40.0								27	
STA 147+99.20 TO STA	154+94.50	2.146	Bridge Omission - SN 044-0029	695.3									
STA 154+94.50 TO STA	155+34.50		Approach Slab & Connector Pvmt	40.0								27	
STA 155+34.50 TO STA	204+24.37			4889.9	21733	1101	730	77	9780	9780	1101		
STA 204+24.37 TO STA	204+24.37	3.146	Overpass - SN SN 044-0031 IL 37										
STA 204+24.37 TO STA	205+57.24			132.9	591	30	20	2	266	266	30		
STA 205+57.24 TO STA	205+57.24	3.171	Overpass - SN SN 044-0032 UPRR										
STA 205+57.24 TO STA	225+93.89			2036.7	9052	459	304	32	4073	4073	459		
STA 225+93.89 TO STA	225+93.89	3.557	Overpass - SN SN 044-0033										
STA 225+93.89 TO STA	271+96.08			4602.2	20454	1036	687	73	9204	9204	1036		
STA 271+96.08 TO STA	271+96.08	4.428	Median Crossover		**284**								**24**
STA 271+96.08 TO STA	333+27.60			6131.5	27251	1381	916	97	12263	12263	1381		
EQ STA 333+27.60 BK = STA	333+27.60 AH	5.589	Station Equation										
STA 333+27.60 TO STA	333+41.52			13.9	62	3	2	0	28	28	3		
STA 333+41.52 TO STA	333+41.52	5.592	Overpass - SN SN 044-0034										
STA 333+41.52 TO STA	390+40.27			5698.8	25328	1283	851	90	11398	11398	1283		
STA 390+40.27 TO STA	390+40.27	6.671	Median Crossover		**592**								**50**
STA 390+40.27 TO STA	411+64.00			2123.7	9439	478	317	34	4247	4247	478		
STA 411+64.00 TO STA	416+39.00		**EB Exit Ramp Departure Area**	475.0	2628	167	54	8	1183	950	167	**158**	
STA 416+39.00 TO STA	418+30.00	7.182	**EB Exit Ramp Departure Area**	191.0	1429	72	49	3	643	382	72	**64**	
STA 418+30.00 TO STA	429+45.71			1115.7	4959	251	167	18	2231	2231	251		
EQ STA 429+45.71 BK = STA	429+47.38 AH	7.411	Station Equation										
STA 429+47.38 TO STA	431+42.31			194.9	866	44	29	3	390	390	44		
STA 431+42.31 TO STA	431+42.31	7.448	Overpass - SN SN 044-0035										
STA 431+42.31 TO STA	441+92.75			1050.4	4669	237	157	17	2101	2101	237		
STA 441+92.75 TO STA	444+28.00		**EB Entrance Ramp Merge Area**	235.3	1673	88	53	4	753	471	88	**18**	
STA 444+28.00 TO STA	453+93.00	7.783	**EB Entrance Ramp Merge Area**	965.0	4981	308	112	15	2241	1930	308	**322**	
STA 453+93.00 TO STA	473+19.66			1926.7	8563	434	288	30	3853	3853	434		
STA 473+19.66 TO STA	473+19.66	8.239	Median Crossover		**192**								**16**
STA 473+19.66 TO STA	508+31.04			3511.4	15606	791	524	56	7023	7023	791		
STA 508+31.04 TO STA	508+31.04	8.904	Overpass - SN SN 044-0036										
STA 508+31.04 TO STA	524+83.61			1652.6	7345	372	247	26	3305	3305	372		
EQ STA 524+83.61 BK = STA	102+46.58 AH	9.217	Station Equation										
STA 102+46.58 TO STA	133+54.22			3107.6	13812	700	464	49	6215	6215	700		
EQ STA 133+54.22 BK = STA	133+57.47 AH	9.806	Station Equation										
STA 133+57.47 TO STA	140+70.46			713.0	3169	161	106	11	1426	1426	161		
STA 140+70.46 TO STA	140+70.46	9.941	Median Crossover		**349**								**29**
STA 140+70.46 TO STA	185+73.30			4502.8	20013	1014	672	71	9006	9006	1014		
STA 185+73.30 TO STA	186+19.83		Connector Pvmt & Approach Slab	46.5								27	
STA 186+19.83 TO STA	187+30.25	10.813	Bridge Omission - SN 044-0037	110.4									
STA 187+30.25 TO STA	187+76.78		Approach Slab & Connector Pvmt	46.5								27	
STA 187+76.78 TO STA	288+00.86			10024.1	44551	2257	1497	159	20048	20048	2257		
EQ STA 288+00.86 BK = STA	287+96.99 AH	12.731	Station Equation										
STA 287+96.99 TO STA	320+50.00			3253.0	14458	732	486	51	6506	6506	732		
STA 320+50.00 PROJECT ENDS		13.347	Improvement Ends									27	
			EB LANE TOTALS	63866.0	280351	14268	9210	980	125521	123884	14268	841	144

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PLOT DATE = 5/1/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVING SCHEDULE – EB LANES
SHEET 1 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	22
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 HMA PAVING - WEST BOUND LANES

FAI-24 - Mainline				COMMENTS	SECTION LENGTH (INFO ONLY)	HMA SURF REMOVAL 1½"	HMA SURFACE 1½"	HMA SHLDS 1½"	AGG SHLD WEDGE	POLY BIT MATLS TACK CT	LONG JOINT SEALANT HALF-WIDTH	MATERIAL TRANSFER DEVICE	TEMP RAMPS	INCIDENTAL HMA SURFACE 1½"
			MP		FEET	SQ YD	TON	TON	TON	POUND	FOOT	TON	SQ YD	TON
I-24 EB LANES - RURAL														
PROJECT BEGINS STA		104+19.95 BK	1.251	Improvement Begins										
STA	104+19.95	TO STA 118+90.43		See Ramp CA										
STA	118+90.43	TO STA 118+90.43	1.529	WB Lanes - Work Begins									27	
STA	118+90.43	TO STA 125+90.00			699.6	3109	158	104	11	1399	1399	158		
STA	125+90.00	TO STA 125+90.00	1.662	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHEDULE										
STA	125+90.00	TO STA 135+37.39			947.4	4211	213	141	15	1895	1895	213		
STA	135+37.39	TO STA 135+37.39	1.841	County Line										
STA	135+37.39	TO STA 147+58.70			1221.3	5428	275	182	19	2443	2443	275		
STA	147+58.70	TO STA 147+98.70		Connector Pvmt & Approach Slab	40.0								27	
STA	147+98.70	TO STA 154+95.00	2.146	Bridge Omission - SN 044-0030	696.3									
STA	154+95.00	TO STA 155+35.00		Approach Slab & Connector Pvmt	40.0								27	
STA	155+35.00	TO STA 203+38.85			4803.9	21350	1082	717	76	9608	9608	1082		
STA	203+38.85	TO STA 203+38.85	3.129	Overpass - SN SN 044-0031 IL 37										
STA	203+38.85	TO STA 204+69.86			131.0	582	29	20	2	262	262	29		
STA	204+69.86	TO STA 204+69.86	3.154	Overpass - SN SN 044-0032 UPRR										
STA	204+69.86	TO STA 226+69.27			2199.4	9775	495	328	35	4399	4399	495		
STA	226+69.27	TO STA 226+69.27	3.571	Overpass - SN SN 044-0033										
STA	226+69.27	TO STA 271+96.08			4526.8	20119	1019	676	72	9054	9054	1019		
STA	271+96.08	TO STA 271+96.08	4.428	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHEDULE										
STA	271+96.08	TO STA 332+62.63			6066.6	26962	1366	906	96	12133	12133	1366		
STA	332+62.63	TO STA 332+62.63	5.577	Overpass - SN SN 044-0034										
STA	332+62.63	TO STA 333+27.60			65.0	289	15	10	1	130	130	15		
EQ STA	333+27.60 BK =	STA 1333+27.60 AH	5.589	Station Equation										
STA	1333+27.60	TO STA 1389+79.65			5652.0	25120	1273	844	89	11304	11304	1273		
STA	1389+79.65	TO STA 1389+79.65	6.660	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHEDULE										
STA	1389+79.65	TO STA 1410+11.40			2031.8	9030	457	303	32	4064	4064	457		
STA	1410+11.40	TO STA 1419+62.90		**WB Exit Ramp Departure Area**	951.5	4980	311	108	15	2241	1903	311	**317**	
STA	1419+62.90	TO STA 1421+97.20		**WB Exit Ramp Departure Area**	234.3	1590	88	46	4	716	469	88	**18**	
STA	1421+97.20	TO STA 1429+60.80			763.6	3394	172	114	12	1527	1527	172		
EQ STA	1429+60.80 BK =	STA 429+36.09 AH	7.414	Station Equation										
STA	429+36.09	TO STA 432+02.85			266.8	1186	60	40	4	534	534	60		
STA	432+02.85	TO STA 432+02.85	7.464	Overpass - SN SN 044-0035										
STA	432+02.85	TO STA 445+60.00			1357.2	6032	306	203	21	2714	2714	306		
STA	445+60.00	TO STA 448+88.00		**WB Entrance Ramp Merge Area**	328.0	2290	123	70	5	1031	656	123	**109**	
STA	448+88.00	TO STA 452+25.00		**WB Entrance Ramp Merge Area**	337.0	1739	108	38	5	783	674	108	**112**	
STA	452+25.00	TO STA 473+19.66			2094.7	9310	472	313	33	4189	4189	472		
STA	473+19.66	TO STA 473+19.66	8.244	Median Crossover										
STA	473+19.66	TO STA 507+88.00			3468.3	15415	781	518	55	6937	6937	781		
STA	507+88.00	TO STA 507+88.00	8.901	Overpass - SN SN 044-0036										
STA	507+88.00	TO STA 524+83.61			1695.6	7536	382	253	27	3391	3391	382		
EQ STA	524+83.61 BK =	STA 102+46.58 AH	9.222	Station Equation										
STA	102+46.58	TO STA 133+63.21			3116.6	13852	702	465	49	6233	6233	702		
EQ STA	133+63.21 BK =	STA 131+77.98 AH	9.812	Station Equation										
STA	131+77.98	TO STA 138+85.09			707.1	3143	159	106	11	1414	1414	159		
STA	138+85.09	TO STA 138+85.09	9.946	Median Crossover										
STA	138+85.09	TO STA 186+65.79			4780.7	21248	1076	714	76	9561	9561	1076		
STA	186+65.79	TO STA 187+05.79		Connector Pvmt & Approach Slab	40.0								27	
STA	187+05.79	TO STA 188+16.22	10.870	Bridge Omission - SN 044-0038	110.4									
STA	188+16.22	TO STA 188+56.22		Approach Slab & Connector Pvmt	40.0								27	
STA	188+56.22	TO STA 288+26.12			9969.9	44311	2245	1489	158	19940	19940	2245		
EQ STA	288+26.12 BK =	STA 288+23.31 AH	12.776	Station Equation										
STA	288+23.31	TO STA 320+50.00			3226.7	14341	727	482	51	6453	6453	727		
STA	320+50.00	PROJECT ENDS	13.387	Improvement Ends									27	
				WB LANE TOTALS	62609.4	276341	14093	9191	975	124353	123285	14093	719	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVING SCHEDULE – WB LANES
SHEET 2 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	23
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 HMA PAVING - INTERCHANGE RAMPS

FAI-24 - Mainline		MP	COMMENTS	SECTION LENGTH (INFO ONLY)	HMA SURF REMOVAL 1½"	HMA SURFACE 1½"	HMA SHLDS 1½"	AGG SHLD WEDGE	POLY BIT MATLS TACK CT	MATERIAL TRANSFER DEVICE	TEMP RAMPS	INCIDENTAL HMA SURFACE 1½"
				FEET	SQ YD	TON	TON	TON	POUND	TON	SQ YD	TON
I 57 / I 24 INTERCHANGE			**WILLIAMSON COUNTY**									
RAMP AC			**BY OTHERS**									
RAMP CA	Begins I24 118+90.43		**WB I24 TO NB I57**									
STA 118+90.43 BK = STA	6+09.57 AH		Stationing Switch								27	
STA 6+09.57 TO STA	24+92.70		Computed Areas (i.e. L x W)	1883.1	8370	425	282	48	3767	425		
STA 24+92.70 TO STA	31+51.80		**Exit Ramp CB Departure Area**	659.1	3633	231	76	17	1635	231	**112**	
STA 31+51.80 TO STA	38+75.00		Computed Areas (i.e. L x W)	723.2	3215	163	108	19	1447	163		
ENDING CA STA	38+75.00										27	
RAMP BC	Begins BC 7+67.00		**NB I57 TO EB I24**								18	
STA 7+67.00 TO STA	21+59.54		Computed Areas (i.e. L x W)	1392.5	4023	210	130	18	1811	210		
STA 21+59.54 BK = STA	113+65.25 AH		Stationing Switch								18	
ENDING EB I24 STA	113+65.25											
RAMP CB	Begins CA 24+92.70		**WB I24 TO SB I57**									
STA 24+92.70 BK = STA	0+00.00 AH		Stationing Switch									
STA 0+00.00 TO STA	6+55.10		Included with Ramp CA Quantities	655.1							18	
STA 6+55.10 TO STA	24+99.02		Computed Areas (i.e. L x W)	1843.9	5327	278	173	24	2398	278		
STA 24+99.02 TO STA	25+30.58		Connector Pvmt & Approach Slab	31.6							18	
STA 25+30.58 TO STA	27+48.40		Bridge Omission - SN 100-0060	217.8								
STA 27+48.40 TO STA	27+99.19		Approach Slab & Connector Pvmt	50.8							18	
STA 27+99.19 TO STA	44+98.00		Computed Areas (i.e. L x W)	1698.8	4908	256	159	22	2209	256		
ENDING EB I24 STA	44+98.00										18	
TUNNEL HILL RD INTERCHANGE			**JOHNSON COUNTY**									
RAMP A	Begins 0+11.40		**WB Entrance Ramp (TUNNEL HILL)**									
STA 0+11.40 TO STA	0+96.10		CADD Measured Areas	84.7	554	32	16	3	250	32	**335**	
STA 0+96.10 TO STA	10+50.00		Computed Areas (i.e. L x W)	953.9	3180	144	125	25	1431	144		
STA 10+50.00 TO STA	14+96.00		Computed Areas (i.e. L x W)	446.0	1289	68	42	12	581	68		
STA 14+96.00 BK = STA	1421+97.20 AH		Stationing Switch								18	
STA 1421+97.20 TO STA	1410+11.40		Included with Mainline Quantities									
RAMP B	Begins 452+25.00		**WB Exit Ramp (TUNNEL HILL)**									
STA 452+25.00 TO STA	445+60.00		Included with Mainline Quantities									
STA 445+60.00 BK = STA	0+00.00 AH		Stationing Switch								18	
STA 0+00.00 TO STA	2+85.00		Computed Areas (i.e. L x W)	285.0	824	43	27	8	371	43		
STA 2+85.00 TO STA	10+47.60		Computed Areas (i.e. L x W)	762.6	2542	115	100	20	1144	115		
STA 10+47.60 TO STA	11+60.60		CADD Measured Areas	113.0	735	42	21	4	331	42	**218**	
RAMP C	Begins 0+10.13		**EB Entrance Ramp (TUNNEL HILL)**									
STA 0+10.13 TO STA	0+94.70		CADD Measured Areas	84.6	539	31	15	3	243	31	**338**	
STA 0+94.70 TO STA	15+24.70		Computed Areas (i.e. L x W)	1430.0	4767	216	187	37	2146	216		
STA 15+24.70 BK = STA	441+92.75 AH		Stationing Switch								18	
STA 441+92.75 TO STA	453+93.00		Included with Mainline Quantities									
RAMP D	Begins 411+64.00		**EB Exit Ramp (TUNNEL HILL)**									
STA 411+64.00 TO STA	418+30.00		Included with Mainline Quantities									
STA 418+30.00 BK = STA	0+00.00 AH		Stationing Switch								18	
STA 0+00.00 TO STA	5+10.00		Computed Areas (i.e. L x W)	510.0	1474	77	48	13	664	77		
STA 5+10.00 TO STA	10+04.00		Computed Areas (i.e. L x W)	494.0	1647	75	65	13	742	75		
STA 10+04.00 TO STA	11+12.00		CADD Measured Areas	108.0	673	38	20	3	303	38	**238**	
			RAMP TOTALS	14427.7	47700	2444	1594	289	21473	2444	1475	

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PLOT DATE = 5/1/2023	DATE -	REVISED -	

PAVING SCHEDULE – INTERCHANGE RAMPS
SHEET 3 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	24
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 HMA PAVING - PROJECT TOTALS

FAI-24 PAVING TOTALS		COMMENTS	SECTION LENGTH (INFO ONLY)	HMA SURF REMOVAL 1½"	HMA SURFACE 1½"	HMA SHLDS 1½"	AGG SHLD WEDGE	POLY BIT MATLS TACK CT	LONG JOINT SEALANT HALF-WIDTH	MATERIAL TRANSFER DEVICE	TEMP RAMPS	INCIDENTAL HMA SURFACE 1½"
	MP		FEET	SQ YD	TON	TON	TON	POUND	FOOT	TON	SQ YD	TON
		EAST BOUND LANES PAVING TOTALS	63866.0	280351	14268	9210	980	125521	123884	14268	841	144
		WEST BOUND LANES PAVING TOTALS	62609.4	276341	14093	9191	975	124353	123285	14093	719	
		INTERCHANGE RAMPS PAVING TOTALS	14427.7	47700	2444	1594	289	21473		2444	1475	
		FROM CENTER LINE AND EDGE LINE REPAIR								4218		
		HMA PAVING PROJECT TOTALS	140903.1	604392	30806	19995	2244	271347	247169	35024	3034	144

Williamson County Totals	13799.7	47133	2502	1452	207	21213	7397	2649	445	25
Johnson County Totals	127103.4	557259	28304	18543	2037	250134	239772	32374	2589	119
HMA PAVING PROJECT TOTALS	140903.1	604392	30806	19995	2244	271347	247169	35024	3034	144

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PLOT DATE = 5/1/2023	DATE -	REVISED -	

PAVING SCHEDULE – PROJECT TOTALS
SHEET 4 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	25
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - EAST BOUND LANES - CONTINUED

FAI-24 - Mainline				COMMENTS	SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING REMOVAL GRINDING	SHORT TERM PAVEMENT MARKING		RAISED REFLECTIVE PAVEMENT MARKERS			DELINEATORS			SHLD RUMBLE STRIP 16"
							1 APPS	REMOVAL	CRYSTAL	AMBER	REMOVAL	CRYSTAL	AMBER	REMOVAL	
			MP		FEET	SQ FT	FOOT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I-24 EB LANES - RURAL															
PROJECT BEGINS STA -113+65.25 BK				I-24 EB LANES BEGIN											
STA 113+65.25	TO STA	114+67.30		**Entrance Ramp BC Merge Area**	102.0	253	27	9	1		1	1		1	205
STA 114+67.30	TO STA	117+37.20		**Entrance Ramp BC Merge Area**	269.9	338	70	23	3		3	1		1	540
STA 117+37.20	TO STA	124+20.00		**Entrance Ramp BC Merge Area**	682.8	769	178	59	8		8	2		2	1366
STA 124+20.00	TO STA	125+90.00			170.0	192	44	15	2		2	1		1	340
STA 125+90.00	TO STA	125+90.00	1.662	Median Crossover					2		2	**1**		**1**	
STA 125+90.00	TO STA	134+16.74			826.7	931	215	72	10		10	3		3	1654
STA 134+16.74	TO STA	134+16.74	1.818	County Line											
STA 134+16.74	TO STA	147+59.20			1342.5	1511	349	116	16		16	4		4	2685
STA 147+59.20	TO STA	147+99.20		Connector Pvmt & Approach Slab	40.0	45	10	3				1		1	80
STA 147+99.20	TO STA	154+94.50	2.146	Bridge Omission - SN 044-0029	695.3	783	181	60	8		8	2		2	1391
STA 154+94.50	TO STA	155+34.50		Approach Slab & Connector Pvmt	40.0	45	10	3				1		1	80
STA 155+34.50	TO STA	204+24.37			4889.9	5502	1271	424	61		61	13		13	9780
STA 204+24.37	TO STA	204+24.37	3.146	Overpass - SN SN 044-0031 IL 37											
STA 204+24.37	TO STA	205+57.24			132.9	150	35	12	1		1	1		1	266
STA 205+57.24	TO STA	205+57.24	3.171	Overpass - SN SN 044-0032 UPRR											
STA 205+57.24	TO STA	225+93.89			2036.7	2292	530	177	25		25	6		6	4074
STA 225+93.89	TO STA	225+93.89	3.557	Overpass - SN SN 044-0033											
STA 225+93.89	TO STA	271+96.08			4602.2	5179	1197	399	57		57	12		12	9205
STA 271+96.08	TO STA	271+96.08	4.428	Median Crossover											
STA 271+96.08	TO STA	333+27.60			6131.5	6899	1594	531	76		76	16		16	12264
EQ STA 333+27.60 BK =	STA	333+27.60 AH	5.589	Station Equation											
STA 333+27.60	TO STA	333+41.52			13.9	16	4	1				1		1	28
STA 333+41.52	TO STA	333+41.52	5.592	Overpass - SN SN 044-0034											
STA 333+41.52	TO STA	390+40.27			5698.8	6412	1482	494	71		71	15		15	11398
STA 390+40.27	TO STA	390+40.27	6.671	Median Crossover											
STA 390+40.27	TO STA	411+64.00			2123.7	2390	552	184	26		26	6		6	4248
STA 411+64.00	TO STA	416+39.00		**EB Exit Ramp Departure Area**	475.0	535	123.5	41.2	5		5	2		2	950
STA 416+39.00	TO STA	418+30.00	7.182	**EB Exit Ramp Departure Area**	191.0	588	49.7	16.6	2		2	1		1	382
STA 418+30.00	TO STA	429+45.71			1115.7	1256	290	97	13		13	3		3	2232
EQ STA 429+45.71 BK =	STA	429+47.38 AH	7.411	Station Equation											
STA 429+47.38	TO STA	431+42.31			194.9	220	51	17	2		2	1		1	390
STA 431+42.31	TO STA	431+42.31	7.448	Overpass - SN SN 044-0035											
STA 431+42.31	TO STA	441+92.75			1050.4	1183	273	91	13		13	3		3	2101
STA 441+92.75	TO STA	444+28.00		**EB Entrance Ramp Merge Area**	235.3	580	61.2	20.4	2		2	1		1	471
STA 444+28.00	TO STA	453+93.00	7.783	**EB Entrance Ramp Merge Area**	965.0	1086	250.9	83.6	12		12	3		3	1930
STA 453+93.00	TO STA	473+19.66			1926.7	2168	501	167	24		24	5		5	3854
STA 473+19.66	TO STA	473+19.66	8.239	Median Crossover											
STA 473+19.66	TO STA	508+31.04			3511.4	3951	913	304	43		43	9		9	7023
STA 508+31.04	TO STA	508+31.04	8.904	Overpass - SN SN 044-0036											
STA 508+31.04	TO STA	524+83.61			1652.6	1860	430	143	20		20	5		5	3306
EQ STA 524+83.61 BK =	STA	102+46.58 AH	9.217	Station Equation											
STA 102+46.58	TO STA	133+54.22			3107.6	3497	808	269	38		38	8		8	6216
EQ STA 133+54.22 BK =	STA	133+57.47 AH	9.806	Station Equation											
STA 133+57.47	TO STA	140+70.46			713.0	803	185	62	8		8	2		2	1426
STA 140+70.46	TO STA	140+70.46	9.941	Median Crossover											
STA 140+70.46	TO STA	185+73.30			4502.8	5066	1171	390	56		56	12		12	9006
STA 185+73.30	TO STA	186+19.83		Connector Pvmt & Approach Slab	46.5	53	12	4				1		1	94
STA 186+19.83	TO STA	187+30.25	10.813	Bridge Omission - SN 044-0037	110.4	125	29	10	1		1	1		1	221
STA 187+30.25	TO STA	187+76.78		Approach Slab & Connector Pvmt	46.5	53	12	4				1		1	94
STA 187+76.78	TO STA	288+00.86			10024.1	11279	2606	869	125		125	26		26	20049
EQ STA 288+00.86 BK =	STA	287+96.99 AH	12.731	Station Equation											
STA 287+96.99	TO STA	320+50.00			3253.0	3661	846	282	40		40	9		9	6507
STA 320+50.00	PROJECT ENDS		13.347	Improvement Ends											
				EB LANE TOTALS	63866.0	71662	16362	5453	771		771	180		180	125856

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – EB LANES
SHEET 1 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	26
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - WEST BOUND LANES

FAI-24 - Mainline			COMMENTS	SECTION LENGTH (INFO ONLY)	THERMOPLASTIC PAVEMENT MARKING							GROOVING FOR RECESSED PAVEMENT MARKING				
					SOLID YELLOW	SOLID WHITE	SKIP DASH WHITE	SOLID WHITE	SOLID WHITE	SOLID WHITE	LTRS & SYMB	FOR 6" TPPM	FOR 8" TPPM	FOR 12" TPPM	FOR 24" TPPM	LTRS & SYMB
					6"	6"	6"	8"	12"	24"		7"	9"	13"	25"	
		MP		FEET	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	SQ FT
I-24 EB LANES - RURAL																
PROJECT BEGINS STA	104+19.95 BK	1.251	Improvement Begins													
STA 104+19.95 TO STA	118+90.43		See Ramp CA													
STA 118+90.43 TO STA	118+90.43	1.529	WB Lanes - Work Begins													
STA 118+90.43 TO STA	125+90.00			699.6	700	700	175					1575				
STA 125+90.00 TO STA	125+90.00	1.662	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHE													
STA 125+90.00 TO STA	135+37.39			947.4	948	948	237					2133				
STA 135+37.39 TO STA	135+37.39	1.841	County Line													
STA 135+37.39 TO STA	147+58.70			1221.3	1222	1222	306					2750				
STA 147+58.70 TO STA	147+98.70		Connector Pvmt & Approach Slab	40.0	40	40	10					90				
STA 147+98.70 TO STA	154+95.00	2.146	Bridge Omission - SN 044-0030	696.3	697	697	175					1569				
STA 154+95.00 TO STA	155+35.00		Approach Slab & Connector Pvmt	40.0	40	40	10					90				
STA 155+35.00 TO STA	203+38.85			4803.9	4804	4804	1201					10809				
STA 203+38.85 TO STA	203+38.85	3.129	Overpass - SN SN 044-0031 IL 37													
STA 203+38.85 TO STA	204+69.86			131.0	132	132	33					297				
STA 204+69.86 TO STA	204+69.86	3.154	Overpass - SN SN 044-0032 UPRR													
STA 204+69.86 TO STA	226+69.27			2199.4	2200	2200	550					4950				
STA 226+69.27 TO STA	226+69.27	3.571	Overpass - SN SN 044-0033													
STA 226+69.27 TO STA	271+96.08			4526.8	4527	4527	1132					10186				
STA 271+96.08 TO STA	271+96.08	4.428	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHEDULE													
STA 271+96.08 TO STA	332+62.63			6066.6	6067	6067	1517					13651				
STA 332+62.63 TO STA	332+62.63	5.577	Overpass - SN SN 044-0034													
STA 332+62.63 TO STA	333+27.60			65.0	65	65	17					147				
EQ STA 333+27.60 BK = STA	1333+27.60 AH	5.589	Station Equation													
STA 1333+27.60 TO STA	1389+79.65			5652.0	5653	5653	1414					12720				
STA 1389+79.65 TO STA	1389+79.65	6.660	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHEDULE													
STA 1389+79.65 TO STA	1410+11.40			2031.8												
STA 1410+11.40 TO STA	1419+62.90		**WB Entrance Ramp Merge Area**	951.5	952	952	238					2142				
STA 1419+62.90 TO STA	1421+97.20		**WB Entrance Ramp Merge Area**	234.3	235	235	59	469				529	469			
STA 1421+97.20 TO STA	1429+60.80			763.6	764	764	191					1719				
EQ STA 1429+60.80 BK = STA	429+36.09 AH	7.414	Station Equation													
STA 429+36.09 TO STA	432+02.85			266.8	267	267	67					601				
STA 432+02.85 TO STA	432+02.85	7.464	Overpass - SN SN 044-0035													
STA 432+02.85 TO STA	445+60.00			1357.2	1358	1358	340					3056				
STA 445+60.00 TO STA	448+88.00		**WB Exit Ramp Departure Area**	328.0	328	328	82	656	118			738	656	118		
STA 448+88.00 TO STA	452+25.00		**WB Exit Ramp Departure Area**	337.0	337	337	85					759				
STA 452+25.00 TO STA	473+19.66			2094.7	2095	2095	524					4714				
STA 473+19.66 TO STA	473+19.66	8.244	Median Crossover													
STA 473+19.66 TO STA	507+88.00			3468.3	3469	3469	868					7806				
STA 507+88.00 TO STA	507+88.00	8.901	Overpass - SN SN 044-0036													
STA 507+88.00 TO STA	524+83.61			1695.6	1696	1696	424					3816				
EQ STA 524+83.61 BK = STA	102+46.58 AH	9.222	Station Equation													
STA 102+46.58 TO STA	133+63.21			3116.6	3117	3117	780					7014				
EQ STA 133+63.21 BK = STA	131+77.98 AH	9.812	Station Equation													
STA 131+77.98 TO STA	138+85.09			707.1	708	708	177					1593				
STA 138+85.09 TO STA	138+85.09	9.946	Median Crossover													
STA 138+85.09 TO STA	186+65.79			4780.7	4781	4781	1196					10758				
STA 186+65.79 TO STA	187+05.79		Connector Pvmt & Approach Slab	40.0	40	40	10					90				
STA 187+05.79 TO STA	188+16.22	10.870	Bridge Omission - SN 044-0038	110.4	111	111	28					250				
STA 188+16.22 TO STA	188+56.22		Approach Slab & Connector Pvmt	40.0	40	40	10					90				
STA 188+56.22 TO STA	288+26.12			9969.9	9970	9970	2493					22433				
EQ STA 288+26.12 BK = STA	288+23.31 AH	12.776	Station Equation													
STA 288+23.31 TO STA	320+50.00			3226.7	3227	3227	807					7261				
STA 320+50.00	**PROJECT ENDS**	13.387	Improvement Ends													
			WB LANE TOTALS	62609.4	60590	60590	15156	1125	118			136336	1125	118		

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – WB LANES
SHEET 2 – 4

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	27
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - INTERCHANGE RAMPS

FAI-24 - Mainline		COMMENTS	SECTION LENGTH (INFO ONLY)	THERMOPLASTIC PAVEMENT MARKING							GROOVING FOR RECESSED PAVEMENT MARKING				
				SOLID YELLOW	SOLID WHITE	SKIP DASH WHITE	SOLID WHITE	SOLID WHITE	SOLID WHITE	LTRS & SYMB	FOR 6" TPPM	FOR 8" TPPM	FOR 12" TPPM	FOR 24" TPPM	LTRS & SYMB
				6"	6"	6"	8"	12"	24"		7"	9"	13"	25"	
	MP		FEET	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	SQ FT
I 57 / I 24 INTERCHANGE															
RAMP AC		BY OTHERS													
RAMP CA Begins I24 118+90.43		**WB I24 TO NB I57**													
STA 118+90.43 BK = STA 6+09.57 AH		Stationing Switch													
STA 6+09.57 TO STA 24+92.70		Computed Areas (i.e. L x W)	1883.1	1884	1884	471					4239				
STA 24+92.70 TO STA 27+91.40		**Exit Ramp CB Departure Area**	298.7	299	299	75	598				673	598			
STA 27+91.40 TO STA 31+51.80		**Exit Ramp CB Departure Area**	360.4	361	361	91	721	**165**			813	721	165		
STA 31+51.80 TO STA 38+75.00		Computed Areas (i.e. L x W)	723.2	724	724	181					1629				
ENDING CA STA 38+75.00															
RAMP BC Begins BC 7+67.00		**NB I57 TO EB I24**													
STA 7+67.00 TO STA 21+59.54		Computed Areas (i.e. L x W)	1392.5	1393	1393	349					3135				
STA 21+59.54 BK = STA 113+65.25 AH		Stationing Switch													
ENDING EB I24 STA 113+65.25															
RAMP CB Begins CA 24+92.70		**WB I24 TO SB I57**													
STA 24+92.70 BK = STA 0+00.00 AH		Stationing Switch													
STA 0+00.00 TO STA 6+55.10		Included with Ramp CA Quantities	655.1												
STA 6+55.10 TO STA 24+99.02		Computed Areas (i.e. L x W)	1843.9	1844	1844	461					4149				
STA 24+99.02 TO STA 25+30.58		Connector Pvmt & Approach Slab	31.6	32	32	8					72				
STA 25+30.58 TO STA 27+48.40		Bridge Omission - SN 100-0060	217.8	218	218	55					491				
STA 27+48.40 TO STA 27+99.19		Approach Slab & Connector Pvmt	50.8	51	51	13					115				
STA 27+99.19 TO STA 44+98.00		Computed Areas (i.e. L x W)	1698.8	1699	1699	425					3823				
ENDING EB I24 STA 44+98.00															
TUNNEL HILL RD INTERCHANGE															
RAMP A Begins 0+11.40		**WB Entrance Ramp (TUNNEL HILL)**													
STA 0+11.40 TO STA 0+96.10		CADD Measured Areas	84.7	85	85	22					192				
STA 0+96.10 TO STA 10+50.00		Computed Areas (i.e. L x W)	953.9	954	954	239					2147				
STA 10+50.00 TO STA 14+96.00		Computed Areas (i.e. L x W)	446.0	446	446	112					1004				
STA 14+96.00 BK = STA 1421+97.20 AH		Stationing Switch													
STA 1421+97.20 TO STA 1410+11.40		Included with Mainline Quantities													
RAMP B Begins 452+25.00		**WB Exit Ramp (TUNNEL HILL)**													
STA 452+25.00 TO STA 445+60.00		Included with Mainline Quantities													
STA 445+60.00 BK = STA 0+00.00 AH		Stationing Switch													
STA 0+00.00 TO STA 2+85.00		Computed Areas (i.e. L x W)	285.0	285	285	72					642				
STA 2+85.00 TO STA 10+47.60		Computed Areas (i.e. L x W)	762.6	763	763	191					1717				
STA 10+47.60 TO STA 11+60.60		CADD Measured Areas	113.0	113	113	29		104	34	42	255		104	34	42
RAMP C Begins 0+10.13		**EB Entrance Ramp (TUNNEL HILL)**													
STA 0+10.13 TO STA 0+94.70		CADD Measured Areas	84.6	85	85	22					192				
STA 0+94.70 TO STA 15+24.70		Computed Areas (i.e. L x W)	1430.0	1430	1430	358					3218				
STA 15+24.70 BK = STA 441+92.75 AH		Stationing Switch													
STA 441+92.75 TO STA 453+93.00		Included with Mainline Quantities													
RAMP D Begins 411+64.00		**EB Exit Ramp (TUNNEL HILL)**													
STA 411+64.00 TO STA 418+30.00		Included with Mainline Quantities													
STA 418+30.00 BK = STA 0+00.00 AH		Stationing Switch													
STA 0+00.00 TO STA 5+10.00		Computed Areas (i.e. L x W)	510.0	510	510	128					1148				
STA 5+10.00 TO STA 10+04.00		Computed Areas (i.e. L x W)	494.0	494	494	124					1112				
STA 10+04.00 TO STA 11+12.00		CADD Measured Areas	108.0	108	108	27		68	36	42	243		68	36	42
		RAMP TOTALS		13778	13778	3453	1319	337	70	84	31009	1319	337	70	84

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – INTERCHANGE RAMPS
SHEET 3 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	28
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

MODEL: $MODELNAME$
FILE NAME: $FILE$

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - PROJECT TOTALS

FAI-24		COMMENTS	SECTION LENGTH (INFO ONLY)	THERMOPLASTIC PAVEMENT MARKING							GROOVING FOR RECESSED PAVEMENT MARKING				
				SOLID YELLOW	SOLID WHITE	SKIP DASH WHITE	SOLID WHITE	SOLID WHITE	SOLID WHITE	LTRS & SYMB	FOR 6" TPPM	FOR 8" TPPM	FOR 12" TPPM	FOR 24" TPPM	LTRS & SYMB
				6"	6"	6"	8"	12	24"		7"	9"	13"	25"	
	MP		FEET	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	SQ FT
		EBL PVMT MRK TOTALS	63866.0	62933	62933	15812	1058	118			141678	1058	118		
		WBL PVMT MRK TOTALS	62609.4	60590	60590	15156	1125	118			136336	1125	118		
		RAMP PVMT MRK TOTALS	14427.7	13778	13778	3453	1319	337	70	84	31009	1319	337	70	84
STATE POLICE SPEED ZONE MARKERS		See Speed Zone Schedule Below						96					96		
I-24 Pipe Underdrain Markers		See Pipe Underdrain Marker Detail								814					814
		PROJECT TOTALS	140903.1	137301	137301	34421	3502	669	70	898	309023	3502	669	70	898

WILLIAMSON	13799.7	12206	12206	3124	1524	165			27536	1524	165		
JOHNSON	127103.4	125095	125095	31297	1978	504	70	898	281487	1978	504	70	898
PROJECT TOTALS	140903.1	137301	137301	34421	3502	669	70	898	309023	3502	669	70	898

PAVEMENT MARKING FOR STATE POLICE SPEED ZONES

FAI-24		SECTION LENGTH (INFO ONLY)	THERMOPLASTIC PAVEMENT MARKING LINE 12"	GROOVING FOR RECESSED PAVEMENT MARKING 13"
KNOWN STATE POLICE SPEED ZONE MARKINGS	MP	COMMENT	FOOT	FOOT
I-24 EB Lanes				
* STA 233+15.00	3.64		12	12
* STA 239+75.00	3.83	Speed Zone = 660 FT	12	12
* STA 470+00.00	8.19		12	12
* STA 476+60.00	8.31	Speed Zone = 660 FT	12	12
I-24 WB Lanes				
* STA 233+15.00	3.64		12	12
* STA 239+75.00	3.83	Speed Zone = 660 FT	12	12
* STA 470+00.00	8.19		12	12
* STA 476+60.00	8.31	Speed Zone = 660 FT	12	12
		I-24 TOTALS	96	96

* ALL STATE POLICE SPEED ZONE MARKINGS SHALL BE PLACED AT EXACT LOCATIONS (THE 660' BETWEEN MARKINGS IS CRITICAL)

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – PROJECT TOTALS
SHEET 4 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	29
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - EAST BOUND LANES - CONTINUED

FAI-24 - Mainline			COMMENTS	SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING REMOVAL GRINDING	SHORT TERM PAVEMENT MARKING		RAISED REFLECTIVE PAVEMENT MARKERS			DELINEATORS			SHLD RUMBLE STRIP 16"
						1 APPS	REMOVAL	CRYSTAL	AMBER	REMOVAL	CRYSTAL	AMBER	REMOVAL	
	MP			FEET	SQ FT	FOOT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I-24 EB LANES - RURAL														
PROJECT BEGINS STA -113+65.25 BK			I-24 EB LANES BEGIN											
STA 113+65.25 TO STA 114+67.30			**Entrance Ramp BC Merge Area**	102.0	253	27	9	1		1	1		1	205
STA 114+67.30 TO STA 117+37.20			**Entrance Ramp BC Merge Area**	269.9	338	70	23	3		3	1		1	540
STA 117+37.20 TO STA 124+20.00			**Entrance Ramp BC Merge Area**	682.8	769	178	59	8		8	2		2	1366
STA 124+20.00 TO STA 125+90.00				170.0	192	44	15	2		2	1		1	340
STA 125+90.00 TO STA 125+90.00		1.662	Median Crossover					2		2	**1**		**1**	
STA 125+90.00 TO STA 134+16.74				826.7	931	215	72	10		10	3		3	1654
STA 134+16.74 TO STA 134+16.74		1.818	County Line											
STA 134+16.74 TO STA 147+59.20				1342.5	1511	349	116	16		16	4		4	2685
STA 147+59.20 TO STA 147+99.20			Connector Pvmt & Approach Slab	40.0	45	10	3				1		1	80
STA 147+99.20 TO STA 154+94.50		2.146	Bridge Omission - SN 044-0029	695.3	783	181	60	8		8	2		2	1391
STA 154+94.50 TO STA 155+34.50			Approach Slab & Connector Pvmt	40.0	45	10	3				1		1	80
STA 155+34.50 TO STA 204+24.37				4889.9	5502	1271	424	61		61	13		13	9780
STA 204+24.37 TO STA 204+24.37		3.146	Overpass - SN SN 044-0031 IL 37											
STA 204+24.37 TO STA 205+57.24				132.9	150	35	12	1		1	1		1	266
STA 205+57.24 TO STA 205+57.24		3.171	Overpass - SN SN 044-0032 UPRR											
STA 205+57.24 TO STA 225+93.89				2036.7	2292	530	177	25		25	6		6	4074
STA 225+93.89 TO STA 225+93.89		3.557	Overpass - SN SN 044-0033											
STA 225+93.89 TO STA 271+96.08				4602.2	5179	1197	399	57		57	12		12	9205
STA 271+96.08 TO STA 271+96.08		4.428	Median Crossover											
STA 271+96.08 TO STA 333+27.60				6131.5	6899	1594	531	76		76	16		16	12264
EQ STA 333+27.60 BK = STA 333+27.60 AH		5.589	Station Equation											
STA 333+27.60 TO STA 333+41.52				13.9	16	4	1				1		1	28
STA 333+41.52 TO STA 333+41.52		5.592	Overpass - SN SN 044-0034											
STA 333+41.52 TO STA 390+40.27				5698.8	6412	1482	494	71		71	15		15	11398
STA 390+40.27 TO STA 390+40.27		6.671	Median Crossover											
STA 390+40.27 TO STA 411+64.00				2123.7	2390	552	184	26		26	6		6	4248
STA 411+64.00 TO STA 416+39.00			**EB Exit Ramp Departure Area**	475.0	535	123.5	41.2	5		5	2		2	950
STA 416+39.00 TO STA 418+30.00		7.182	**EB Exit Ramp Departure Area**	191.0	588	49.7	16.6	2		2	1		1	382
STA 418+30.00 TO STA 429+45.71				1115.7	1256	290	97	13		13	3		3	2232
EQ STA 429+45.71 BK = STA 429+47.38 AH		7.411	Station Equation											
STA 429+47.38 TO STA 431+42.31				194.9	220	51	17	2		2	1		1	390
STA 431+42.31 TO STA 431+42.31		7.448	Overpass - SN SN 044-0035											
STA 431+42.31 TO STA 441+92.75				1050.4	1183	273	91	13		13	3		3	2101
STA 441+92.75 TO STA 444+28.00			**EB Entrance Ramp Merge Area**	235.3	580	61.2	20.4	2		2	1		1	471
STA 444+28.00 TO STA 453+93.00		7.783	**EB Entrance Ramp Merge Area**	965.0	1086	250.9	83.6	12		12	3		3	1930
STA 453+93.00 TO STA 473+19.66				1926.7	2168	501	167	24		24	5		5	3854
STA 473+19.66 TO STA 473+19.66		8.239	Median Crossover											
STA 473+19.66 TO STA 508+31.04				3511.4	3951	913	304	43		43	9		9	7023
STA 508+31.04 TO STA 508+31.04		8.904	Overpass - SN SN 044-0036											
STA 508+31.04 TO STA 524+83.61				1652.6	1860	430	143	20		20	5		5	3306
EQ STA 524+83.61 BK = STA 102+46.58 AH		9.217	Station Equation											
STA 102+46.58 TO STA 133+54.22				3107.6	3497	808	269	38		38	8		8	6216
EQ STA 133+54.22 BK = STA 133+57.47 AH		9.806	Station Equation											
STA 133+57.47 TO STA 140+70.46				713.0	803	185	62	8		8	2		2	1426
STA 140+70.46 TO STA 140+70.46		9.941	Median Crossover											
STA 140+70.46 TO STA 185+73.30				4502.8	5066	1171	390	56		56	12		12	9006
STA 185+73.30 TO STA 186+19.83			Connector Pvmt & Approach Slab	46.5	53	12	4				1		1	94
STA 186+19.83 TO STA 187+30.25		10.813	Bridge Omission - SN 044-0037	110.4	125	29	10	1		1	1		1	221
STA 187+30.25 TO STA 187+76.78			Approach Slab & Connector Pvmt	46.5	53	12	4				1		1	94
STA 187+76.78 TO STA 288+00.86				10024.1	11279	2606	869	125		125	26		26	20049
EQ STA 288+00.86 BK = STA 287+96.99 AH		12.731	Station Equation											
STA 287+96.99 TO STA 320+50.00				3253.0	3661	846	282	40		40	9		9	6507
STA 320+50.00 PROJECT ENDS		13.347	Improvement Ends											
			EB LANE TOTALS	63866.0	71662	16362	5453	771		771	180		180	125856

MODEL: $MODELNAME$
FILE NAME= $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – EB LANES
SHEET 1 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	30
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - WEST BOUND LANES - CONTINUED

FAI-24 - Mainline			COMMENTS	SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING REMOVAL GRINDING	SHORT TERM PAVEMENT MARKING		RAISED REFLECTIVE PAVEMENT MARKERS			DELINEATORS			SHLD RUMBLE STRIP 16"
						1 APPS	REMOVAL	CRYSTAL	AMBER	REMOVAL	CRYSTAL	AMBER	REMOVAL	
		MP		FEET	SQ FT	FOOT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I-24 EB LANES - RURAL														
PROJECT BEGINS STA	104+19.95 BK	1.251	Improvement Begins											
STA 104+19.95	TO STA 118+90.43		See Ramp CA											
STA 118+90.43	TO STA 118+90.43	1.529	WB Lanes - Work Begins											
STA 118+90.43	TO STA 125+90.00			699.6	788	182	61	8		8	2		2	1400
STA 125+90.00	TO STA 125+90.00	1.662	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHE											
STA 125+90.00	TO STA 135+37.39			947.4	1067	246	82	11		11	3		3	1895
STA 135+37.39	TO STA 135+37.39	1.841	County Line											
STA 135+37.39	TO STA 147+58.70			1221.3	1375	318	106	15		15	4		4	2443
STA 147+58.70	TO STA 147+98.70		Connector Pvmt & Approach Slab	40.0	45	10	3				1		1	80
STA 147+98.70	TO STA 154+95.00	2.146	Bridge Omission - SN 044-0030	696.3	785	181	60	8		8	2		2	1393
STA 154+95.00	TO STA 155+35.00		Approach Slab & Connector Pvmt	40.0	45	10	3				1		1	80
STA 155+35.00	TO STA 203+38.85			4803.9	5405	1249	416	60		60	13		13	9608
STA 203+38.85	TO STA 203+38.85	3.129	Overpass - SN SN 044-0031 IL 37											
STA 203+38.85	TO STA 204+69.86			131.0	149	34	11	1		1	1		1	263
STA 204+69.86	TO STA 204+69.86	3.154	Overpass - SN SN 044-0032 UPRR											
STA 204+69.86	TO STA 226+69.27			2199.4	2475	572	191	27		27	6		6	4399
STA 226+69.27	TO STA 226+69.27	3.571	Overpass - SN SN 044-0033											
STA 226+69.27	TO STA 271+96.08			4526.8	5093	1177	392	56		56	12		12	9054
STA 271+96.08	TO STA 271+96.08	4.428	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHE											
STA 271+96.08	TO STA 332+62.63			6066.6	6826	1577	526	75		75	16		16	12134
STA 332+62.63	TO STA 332+62.63	5.577	Overpass - SN SN 044-0034											
STA 332+62.63	TO STA 333+27.60			65.0	74	17	6				1		1	130
EQ STA 333+27.60 BK =	STA 1333+27.60 AH	5.589	Station Equation											
STA 1333+27.60	TO STA 1389+79.65			5652.0	6360	1470	490	70		70	15		15	11305
STA 1389+79.65	TO STA 1389+79.65	6.660	Median Crossover - FOR QUANTITIES, SEE EAST BOUND SCHE											
STA 1389+79.65	TO STA 1410+11.40			2031.8										
STA 1410+11.40	TO STA 1419+62.90		**WB Entrance Ramp Merge Area**	951.5	1071	247	82	11		11	3		3	1903
STA 1419+62.90	TO STA 1421+97.20		**WB Entrance Ramp Merge Area**	234.3	577	61	20	2		2	1		1	469
STA 1421+97.20	TO STA 1429+60.80			763.6	860	199	66	9		9	2		2	1528
EQ STA 1429+60.80 BK =	STA 429+36.09 AH	7.414	Station Equation											
STA 429+36.09	TO STA 432+02.85			266.8	301	69	23	3		3	1		1	534
STA 432+02.85	TO STA 432+02.85	7.464	Overpass - SN SN 044-0035											
STA 432+02.85	TO STA 445+60.00			1357.2	1528	353	118	16		16	4		4	2715
STA 445+60.00	TO STA 448+88.00		**WB Exit Ramp Departure Area**	328.0	924	85	28	4		4	1		1	656
STA 448+88.00	TO STA 452+25.00		**WB Exit Ramp Departure Area**	337.0	380	88	29	4		4	1		1	674
STA 452+25.00	TO STA 473+19.66			2094.7	2357	545	182	26		26	6		6	4190
STA 473+19.66	TO STA 473+19.66	8.244	Median Crossover											
STA 473+19.66	TO STA 507+88.00			3468.3	3903	902	301	43		43	9		9	6937
STA 507+88.00	TO STA 507+88.00	8.901	Overpass - SN SN 044-0036											
STA 507+88.00	TO STA 524+83.61			1695.6	1908	441	147	21		21	5		5	3392
EQ STA 524+83.61 BK =	STA 102+46.58 AH	9.222	Station Equation											
STA 102+46.58	TO STA 133+63.21			3116.6	3507	810	270	38		38	8		8	6234
EQ STA 133+63.21 BK =	STA 131+77.98 AH	9.812	Station Equation											
STA 131+77.98	TO STA 138+85.09			707.1	797	184	61	8		8	2		2	1415
STA 138+85.09	TO STA 138+85.09	9.946	Median Crossover											
STA 138+85.09	TO STA 186+65.79			4780.7	5379	1243	414	59		59	12		12	9562
STA 186+65.79	TO STA 187+05.79		Connector Pvmt & Approach Slab	40.0	45	10	3				1		1	80
STA 187+05.79	TO STA 188+16.22	10.870	Bridge Omission - SN 044-0038	110.4	125	29	10	1		1	1		1	221
STA 188+16.22	TO STA 188+56.22		Approach Slab & Connector Pvmt	40.0	45	10	3				1		1	80
STA 188+56.22	TO STA 288+26.12			9969.9	11217	2592	864	124		124	25		25	19940
EQ STA 288+26.12 BK =	STA 288+23.31 AH	12.776	Station Equation											
STA 288+23.31	TO STA 320+50.00			3226.7	3631	839	280	40		40	9		9	6454
STA 320+50.00	PROJECT ENDS	13.387	Improvement Ends											
			WB LANE TOTALS	62609.4	69034	15750	5248	740		740	169		169	121168

MODEL: $MODELNAME$
FILE NAME: $FILEL$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING SCHEDULE – WB LANES
SHEET 2 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	31
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 PAVEMENT MARKING - INTERCHANGE RAMPS - CONTINUED

FAI-24 - Mainline			COMMENTS	SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING REMOVAL GRINDING	SHORT TERM PAVEMENT MARKING		RAISED REFLECTIVE PAVEMENT MARKERS			DELINEATORS			SHLD RUMBLE STRIP 16"
						1 APPS	REMOVAL	CRYSTAL	AMBER	REMOVAL	CRYSTAL	AMBER	REMOVAL	
	MP			FEET	SQ FT	FOOT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I 57 / I 24 INTERCHANGE														
RAMP AC			BY OTHERS											
RAMP CA Begins I24		118+90.43	WB I24 TO NB I57											
STA 118+90.43 BK = STA		6+09.57 AH	Stationing Switch											
STA 6+09.57 TO STA		24+92.70	Computed Areas (i.e. L x W)	1883.1	2120	490	163	23		23	5		5	3767
STA 24+92.70 TO STA		27+91.40	Exit Ramp CB Departure Area	298.7	735	78	26	34		34	1		1	598
STA 27+91.40 TO STA		31+51.80	Exit Ramp CB Departure Area	360.4	1052	94	31	41		41	1		1	721
STA 31+51.80 TO STA		38+75.00	Computed Areas (i.e. L x W)	723.2	815	188	63	9		9	2		2	1447
ENDING CA STA		38+75.00												
RAMP BC Begins BC		7+67.00	NB I57 TO EB I24											
STA 7+67.00 TO STA		21+59.54	Computed Areas (i.e. L x W)	1392.5	1568	362	121		34	34	14	14	28	2786
STA 21+59.54 BK = STA		113+65.25 AH	Stationing Switch											
ENDING EB I24 STA		113+65.25												
RAMP CB Begins CA		24+92.70	WB I24 TO SB I57											
STA 24+92.70 BK = STA		0+00.00 AH	Stationing Switch											
STA 0+00.00 TO STA		6+55.10	Included with Ramp CA Quantities	655.1										
STA 6+55.10 TO STA		24+99.02	Computed Areas (i.e. L x W)	1843.9	2075	479	160		16	16	19	19	38	3688
STA 24+99.02 TO STA		25+30.58	Connector Pvmt & Approach Slab	31.6	36	8	3							64
STA 25+30.58 TO STA		27+48.40	Bridge Omission - SN 100-0060	217.8	246	57	19							436
STA 27+48.40 TO STA		27+99.19	Approach Slab & Connector Pvmt	50.8	58	13	4							102
STA 27+99.19 TO STA		44+98.00	Computed Areas (i.e. L x W)	1698.8	1912	442	147		8	8	17	17	34	3398
ENDING EB I24 STA		44+98.00												
TUNNEL HILL RD INTERCHANGE														
RAMP A Begins		0+11.40	WB Entrance Ramp (TUNNEL HILL)											
STA 0+11.40 TO STA		0+96.10	CADD Measured Areas	84.7	96	22	7							170
STA 0+96.10 TO STA		10+50.00	Computed Areas (i.e. L x W)	953.9	1074	248	83				10	10	20	1908
STA 10+50.00 TO STA		14+96.00	Computed Areas (i.e. L x W)	446.0	502	116	39		4	4	5	5	10	892
STA 14+96.00 BK = STA		1421+97.20 AH	Stationing Switch											
STA 1421+97.20 TO STA		1410+11.40	Included with Mainline Quantities											
RAMP B Begins		452+25.00	WB Exit Ramp (TUNNEL HILL)											
STA 452+25.00 TO STA		445+60.00	Included with Mainline Quantities											
STA 445+60.00 BK = STA		0+00.00 AH	Stationing Switch											
STA 0+00.00 TO STA		2+85.00	Computed Areas (i.e. L x W)	285.0	321	74	25		4	4	3	3	6	570
STA 2+85.00 TO STA		10+47.60	Computed Areas (i.e. L x W)	762.6	859	198	66		2	2	8	8	16	1526
STA 10+47.60 TO STA		11+60.60	CADD Measured Areas	113.0	342	29	10							226
RAMP C Begins		0+10.13	EB Entrance Ramp (TUNNEL HILL)											
STA 0+10.13 TO STA		0+94.70	CADD Measured Areas	84.6	96	22	7							170
STA 0+94.70 TO STA		15+24.70	Computed Areas (i.e. L x W)	1430.0	1609	372	124		4	4	15	15	30	2860
STA 15+24.70 BK = STA		441+92.75 AH	Stationing Switch											
STA 441+92.75 TO STA		453+93.00	Included with Mainline Quantities											
RAMP D Begins		411+64.00	EB Exit Ramp (TUNNEL HILL)											
STA 411+64.00 TO STA		418+30.00	Included with Mainline Quantities											
STA 418+30.00 BK = STA		0+00.00 AH	Stationing Switch											
STA 0+00.00 TO STA		5+10.00	Computed Areas (i.e. L x W)	510.0	574	133	44		6	6	6	6	12	1020
STA 5+10.00 TO STA		10+04.00	Computed Areas (i.e. L x W)	494.0	556	128	43				5	5	10	988
STA 10+04.00 TO STA		11+12.00	CADD Measured Areas	108.0	304	28	9							216
			RAMP TOTALS		16947	3580	1194	107	78	185	111	102	213	27553

USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

PAVEMENT MARKING SCHEDULE – INTERCHANGE RAMPS
SHEET 3 – 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	32
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

MODEL: $MODELNAME$
FILE NAME: $FILE$

SCHEDULE FOR I-24 PAVEMENT MARKING - PROJECT TOTALS - CONTINUED

FAI-24		COMMENTS	SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING REMOVAL GRINDING	SHORT TERM PAVEMENT MARKING		RAISED REFLECTIVE PAVEMENT MARKERS			DELINEATORS			SHLD RUMBLE STRIP 16"
					1 APPS	REMOVAL	CRYSTAL	AMBER	REMOVAL	CRYSTAL	AMBER	REMOVAL	
	MP		FEET	SQ FT	FOOT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
		EBL PVMT MRK TOTALS	63866.0	71662	16362	5453	771		771	180		180	125856
		WBL PVMT MRK TOTALS	62609.4	69034	15750	5248	740		740	169		169	121168
		RAMP PVMT MRK TOTALS	14427.7	16947	3580	1194	107	78	185	111	102	213	27553
STATE POLICE SPEED ZONE MARKERS		See Speed Zone Schedule Below		NA									
I-24 Pipe Underdrain Markers		See Pipe Underdrain Marker Detail		NA									
		PROJECT TOTALS	140903.1	157643	35692	11895	1618	78	1696	460	102	562	274577

WILLIAMSON	13799.7	14949	3172	1057	152	58	210	73	50	123	24407
JOHNSON	127103.4	142694	32520	10838	1466	20	1486	387	52	439	250170
PROJECT TOTALS	140903.1	157643	35692	11895	1618	78	1696	460	102	562	274577

MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

PAVEMENT MARKING SCHEDULE – PROJECT TOTALS
SHEET 4 – 4

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	33
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 GUARDRAIL - EAST BOUND LANES

FAI-24 - Mainline	MP	COMMENTS	SECTION LENGTH (INFO ONLY)	GRDRAIL REMOVAL	SPBG TYPE A 6 FOOT POSTS	SPBG * TYPE A 9 FOOT POSTS	TRAF BAR TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAF BAR TERM TYPE 2	TRAF BAR TERM TYPE 6	TRAF BAR TERM TYPE 5	TERM MRK DIRECT APPLIED	GRDRAIL REFLECT TYPE A	CONCRETE CURB TYPE B
			FEET	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I-24 EB LANES - RURAL													
PROJECT BEGINS STA 104+19.95 BK	1.251	I-24 EB LANES BEGIN											
STA 134+16.74 TO STA 134+16.74	1.818	County Line											
STA 144+59.80 TO STA 147+84.20	2.047	**OUTSIDE GUARDRAIL**	324.40	323	237.5		1		1		1	5	15
STA 144+97.30 TO STA 147+84.20	2.050	**MEDIAN GUARDRAIL**	286.90	282	200.0		1		1		1	4	15
STA 147+99.20 TO STA 154+94.50	2.146	Bridge Omission - SN 044-0029	695.30										
STA 155+34.50 TO STA 157+50.00	2.240	**MEDIAN GUARDRAIL**	215.50	216	151.5		1	1			1	3	
STA 199+69.50 TO STA 203+96.25	3.100	**MEDIAN GUARDRAIL**	426.75	427	362.5		1	1			1	7	
STA 204+24.37 TO STA 204+24.37	3.146	Overpass - SN SN 044-0031 IL 37											
STA 205+57.24 TO STA 205+57.24	3.171	Overpass - SN SN 044-0032 UPRR											
STA 225+93.89 TO STA 225+93.89	3.557	Overpass - SN SN 044-0033											
STA 291+37.00 TO STA 308+63.75	4.959	**OUTSIDE GUARDRAIL**	1726.75	1727	650.0	1012.5	1	1			1	10	
EQ STA 333+27.60 BK = STA 333+27.60 AH	5.589	Station Equation											
STA 333+41.52 TO STA 333+41.52	5.592	Overpass - SN SN 044-0034											
STA 370+96.00 TO STA 375+72.75	6.348	**OUTSIDE GUARDRAIL**	476.75	476	225.0	187.5	1	1			1	7	
STA 389+43.00 TO STA 395+82.25	6.713	**OUTSIDE GUARDRAIL**	639.25	640	200.0	375.0	1	1			1	7	
EQ STA 429+45.71 BK = STA 429+47.38 AH	7.411	Station Equation											
STA 431+42.31 TO STA 431+42.31	7.448	Overpass - SN SN 044-0035											
STA 482+33.00 TO STA 490+22.25	8.487	**OUTSIDE GUARDRAIL**	789.25	787	287.5	437.5	1	1			1	7	
STA 508+31.04 TO STA 508+31.04	8.904	Overpass - SN SN 044-0036											
EQ STA 524+83.61 BK = STA 102+46.58 AH	9.217	Station Equation											
STA 107+78.00 TO STA 116+17.25	9.397	**OUTSIDE GUARDRAIL**	839.25	842	275.0	500.0	1	1			1	8	
EQ STA 133+54.22 BK = STA 133+57.47 AH	9.806	Station Equation											
STA 176+01.50 TO STA 186+13.40	10.705	**OUTSIDE GUARDRAIL**	1011.90	1010	925.0		1		1		1	8	15
STA 175+60.80 TO STA 186+22.70	10.702	**MEDIAN GUARDRAIL**	1061.90	1060	975.0		1		1		1	8	15
STA 186+19.83 TO STA 187+30.25	10.813	Bridge Omission - SN 044-0037	110.42										
STA 187+42.00 TO STA 196+16.00	10.908	**OUTSIDE GUARDRAIL**	874.00	874	0.0	848.2		1		1		8	
STA 187+48.00 TO STA 197+10.00	10.918	**MEDIAN GUARDRAIL**	962.00	962	0.0	935.7		1		1		8	
STA 226+33.70 TO STA 238+72.95	11.680	**OUTSIDE GUARDRAIL**	1239.25	1240	275.0	900.0	1	1			1	9	
STA 226+69.60 TO STA 242+76.35	11.722	**MEDIAN GUARDRAIL**	1606.75	1605	375.0	1167.5	1	1			1	10	
EQ STA 288+00.86 BK = STA 287+96.99 AH	12.731	Station Equation											
STA 320+50.00 **PROJECT ENDS**	13.347	Improvement Ends											
EB LANE TOTALS				12470	5139.1	6363.9	13	11	4	2	13	109	60

MODEL: $MODELNAME$
FILE NAME: $FILE$

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	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL SCHEDULE – EB LANES
SHEET 1 OF 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	34
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**1X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1 WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 GUARDRAIL - WEST BOUND LANES

FAI-24 - Mainline	MP	COMMENTS	SECTION LENGTH (INFO ONLY)	GRDRAIL REMOVAL	SPBG TYPE A 6 FOOT POSTS	SPBG * TYPE A 9 FOOT POSTS	TRAF BAR TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAF BAR TERM TYPE 2	TRAF BAR TERM TYPE 6	TRAF BAR TERM TYPE 5	TERM MRK DIRECT APPLIED	GRDRAIL REFLECT TYPE A	CONCRETE CURB TYPE B
			FEET	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I-24 EB LANES - RURAL													
PROJECT BEGINS STA 104+19.95 BK	1.251	Improvement Begins											
			-1470.48										
STA 118+82.00 TO STA 122+58.75	1.563	**OUTSIDE GUARDRAIL**	376.75	376	312.5		1	1			1	5	
STA 118+82.00 TO STA 123+33.75	1.571	**MEDIAN GUARDRAIL**	451.75	446	387.5		1	1			1	7	
STA 135+37.39 TO STA 135+37.39	1.841	County Line											
STA 142+04.18 TO STA 147+81.70	2.022	**OUTSIDE GUARDRAIL**	577.52	577		550.0		1		1		7	
STA 147+98.70 TO STA 154+95.00	2.146	Bridge Omission - SN 044-0030	696.30										
STA 155+10.00 TO STA 158+34.40	2.246	**OUTSIDE GUARDRAIL**	324.40	319	237.5		1		1		1	5	15
STA 155+10.00 TO STA 158+21.90	2.244	**MEDIAN GUARDRAIL**	311.90	306	225.0		1		1		1	4	15
STA 203+38.85 TO STA 203+38.85	3.129	Overpass - SN SN 044-0031 IL 37											
STA 204+99.75 TO STA 209+14.00	3.199	**MEDIAN GUARDRAIL**	414.25	414	350.0		1	1			1	7	
STA 204+69.86 TO STA 204+69.86	3.154	Overpass - SN SN 044-0032 UPRR											
STA 226+69.27 TO STA 226+69.27	3.571	Overpass - SN SN 044-0033											
STA 299+22.00 TO STA 308+98.75	5.037	**OUTSIDE GUARDRAIL**	976.75	976	387.5	525.0	1	1			1	8	
STA 332+62.63 TO STA 332+62.63	5.577	Overpass - SN SN 044-0034											
EQ STA 333+27.60 BK = STA 1333+27.60 AH	5.589	Station Equation											
STA 1389+58.00 TO STA 1396+09.75	6.718	**OUTSIDE GUARDRAIL**	651.75	650	262.5	325.0	1	1			1	7	
			-651.75										
EQ STA 1429+60.80 BK = STA 429+36.09 AH	7.414	Station Equation											
STA 432+02.85 TO STA 432+02.85	7.464	Overpass - SN SN 044-0035											
STA 507+88.00 TO STA 507+88.00	8.901	Overpass - SN SN 044-0036											
STA 522+89.00 TO STA 524+83.61	9.204	**OUTSIDE GUARDRAIL**	194.61										
EQ STA 524+83.61 BK = STA 102+46.58 AH	9.222	Station Equation		1787	275.0	1450.0	1	1			1	10	
102+46.58 TO STA 118+38.97	9.373	**OUTSIDE GUARDRAIL**	1592.39										
EQ STA 133+63.21 BK = STA 131+77.98 AH	9.812	Station Equation											
STA 187+05.79 TO STA 188+16.22	10.870	Bridge Omission - SN 044-0038	110.43										
STA 188+25.00 TO STA 198+00.00	10.974	**OUTSIDE GUARDRAIL**	975.00	975	412.5	475.0	1		1		1	8	15
STA 188+22.50 TO STA 197+55.00	10.970	**MEDIAN GUARDRAIL**	932.50	933	462.5	387.5	1		1		1	8	15
STA 232+17.00 TO STA 245+06.25	11.836	**OUTSIDE GUARDRAIL**	1289.25	1292	187.5	1037.5	1	1			1	9	
STA 230+77.00 TO STA 247+66.25	11.847	**MEDIAN GUARDRAIL**	1689.25	1691	300.0	1325.0	1	1			1	10	
EQ STA 288+26.12 BK = STA 288+23.31 AH	12.776	Station Equation											
STA 320+50.00 **PROJECT ENDS**	13.387	Improvement Ends											
		WB LANE TOTALS		10742	3800.0	6075.0	12	9	4	1	12	95	60

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	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL SCHEDULE – WB LANES
SHEET 2 OF 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	35
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 GUARDRAIL - INTERCHANGE RAMPS

FAI-24 - Mainline	MP	COMMENTS	SECTION LENGTH (INFO ONLY)	GRDRAIL REMOVAL	SPBG TYPE A 6 FOOT POSTS	SPBG * TYPE A 9 FOOT POSTS	TRAF BAR TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAF BAR TERM TYPE 2	TRAF BAR TERM TYPE 6	TRAF BAR TERM TYPE 5	TERM MRK DIRECT APPLIED	GRDRAIL REFLECT TYPE A	CONCRETE CURB TYPE B
			FEET	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
I 57 / I 24 INTERCHANGE													
WILLIAMSON CO													
RAMP AC Begins AC 20+30.00		SB I57 TO EB I24											
ENDING EB I24 STA 104+19.95													
RAMP CA Begins I24 118+90.43		WB I24 TO NB I57											
STA 118+90.43 BK = STA 6+09.57 AH		Stationing Switch											
STA 24+53.60 TO STA 27+80.00	-0.677	OUTSIDE GUARDRAIL	326.40	325	262.1		1	1			1	5	
STA 24+50.10 TO STA 27+80.00	-0.677	MEDIAN GUARDRAIL	329.90	325	265.6		1	1			1	5	
ENDING CA STA 38+75.00													
RAMP BC Begins BC 7+67.00		NB I57 TO EB I24											
STA 21+59.54 BK = STA 113+65.25 AH		Stationing Switch											
ENDING EB I24 STA 113+65.25													
RAMP CB Begins CA 24+92.70		WB I24 TO SB I57											
STA 24+92.70 BK = STA 0+00.00 AH		Stationing Switch											
STA 23+93.18 TO STA 24+94.58	0.463	OUTSIDE GUARDRAIL	101.40	100	14.5		1		1		1	2	15
STA 23+81.68 TO STA 24+94.58	0.462	MEDIAN GUARDRAIL	112.90	108	26.0		1		1		1	2	15
ENDING EB I24 STA 44+98.00													
JOHNSON CO													
TUNNEL HILL RD INTERCHANGE													
RAMP A Begins 0+11.40		WB Entrance Ramp (TUNNEL HILL)											
STA 14+96.00 BK = STA 1421+97.20 AH		Stationing Switch											
ENDING WB I24 STA 1410+11.40													
RAMP B Begins WB I24 STA 452+25.00		WB Exit Ramp (TUNNEL HILL)											
STA 445+60.00 BK = STA 0+00.00 AH		Stationing Switch											
ENDING Ramp B STA 11+60.60													
RAMP C Begins 0+10.13		EB Entrance Ramp (TUNNEL HILL)											
STA 15+24.70 BK = STA 441+92.75 AH		Stationing Switch											
ENDING EB I24 STA 453+93.00													
RAMP D Begins SB I24 STA 411+64.00		EB Exit Ramp (TUNNEL HILL)											
STA 418+30.00 BK = STA 0+00.00 AH		Stationing Switch											
ENDING Ramp D STA 11+12.00													
RAMP TOTALS				858	568.3		4	2	2		4	14	30

MODEL: $MODELNAME$
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	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL SCHEDULE – INTERCHANGE RAMPS
SHEET 3 OF 4

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	36
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SCHEDULE FOR I-24 GUARDRAIL - PROJECT TOTALS

FAI-24 GUARDRAIL TOTALS		COMMENTS	SECTION LENGTH (INFO ONLY)	GRDRAIL REMOVAL	SPBG TYPE A 6 FOOT POSTS	SPBG * TYPE A 9 FOOT POSTS	TRAF BAR TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAF BAR TERM TYPE 2	TRAF BAR TERM TYPE 6	TRAF BAR TERM TYPE 5	TERM MRK DIRECT APPLIED	GRDRAIL REFLECT TYPE A	CONCRETE CURB TYPE B
			FEET	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
		EAST BOUND LANES GR TOTALS	63866.03	12470	5139	6364	13	11	4	2	13	109	60
		WEST BOUND LANES GR TOTALS	62609.35	10742	3800	6075	12	9	4	1	12	95	60
		INTERCHANGE RAMPS GR TOTALS	23589.95	858	568		4	2	2		4	14	30
		PROJECT TOTALS		24070	9507	12439	29	22	10	3	29	218	150
		WILLIAMSON	19245	1680	1268		6	4	2		6	26	30
		JOHNSON	130820	22390	8239	12439	23	18	8	3	23	192	120
		PROJECT TOTALS	150065	24070	9507	12439	29	22	10	3	29	218	150

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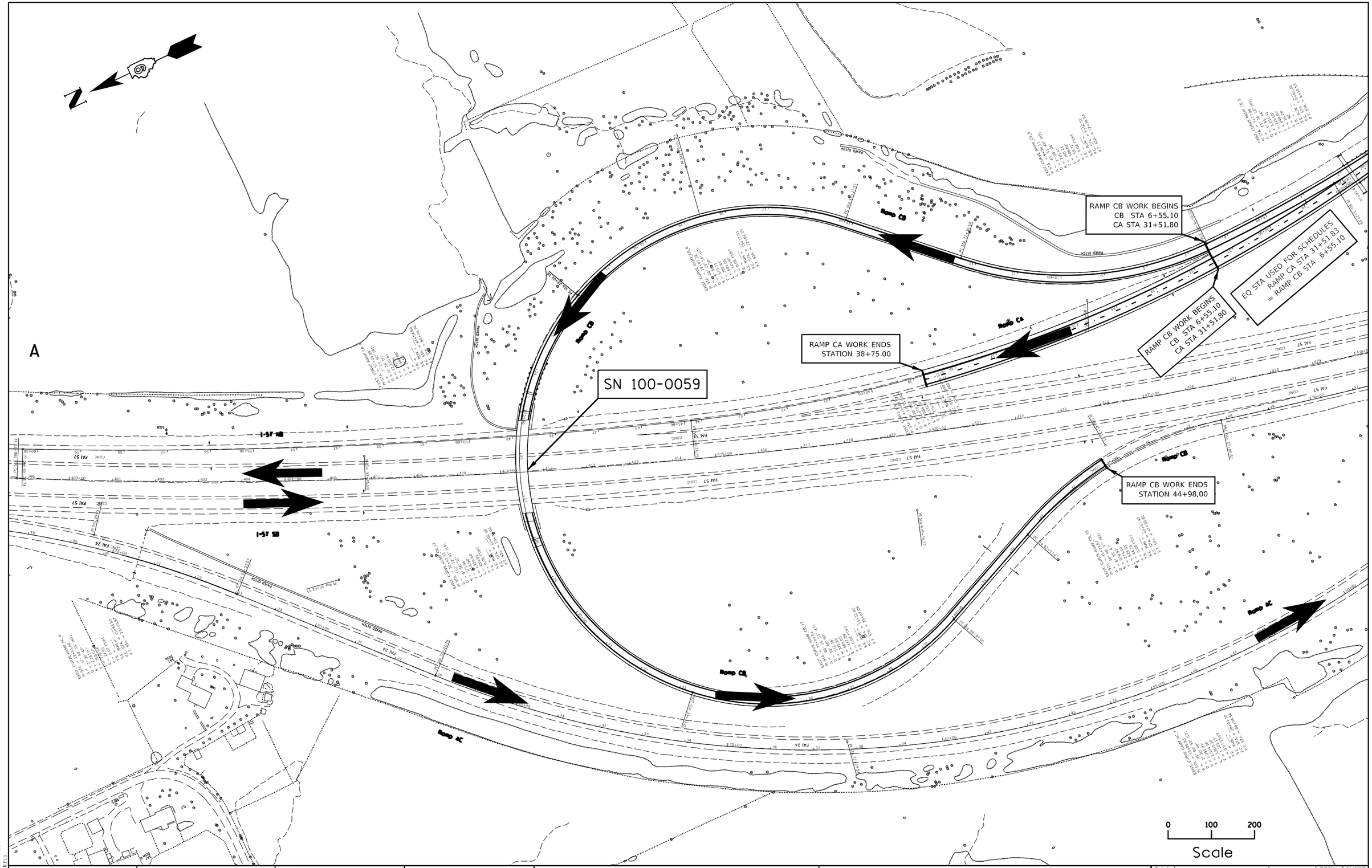
GUARDRAIL SCHEDULE – PROJECT TOTALS
SHEET 4 OF 4

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	37
			CONTRACT NO. 78912	
		ILLINOIS	FED. AID PROJECT	

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

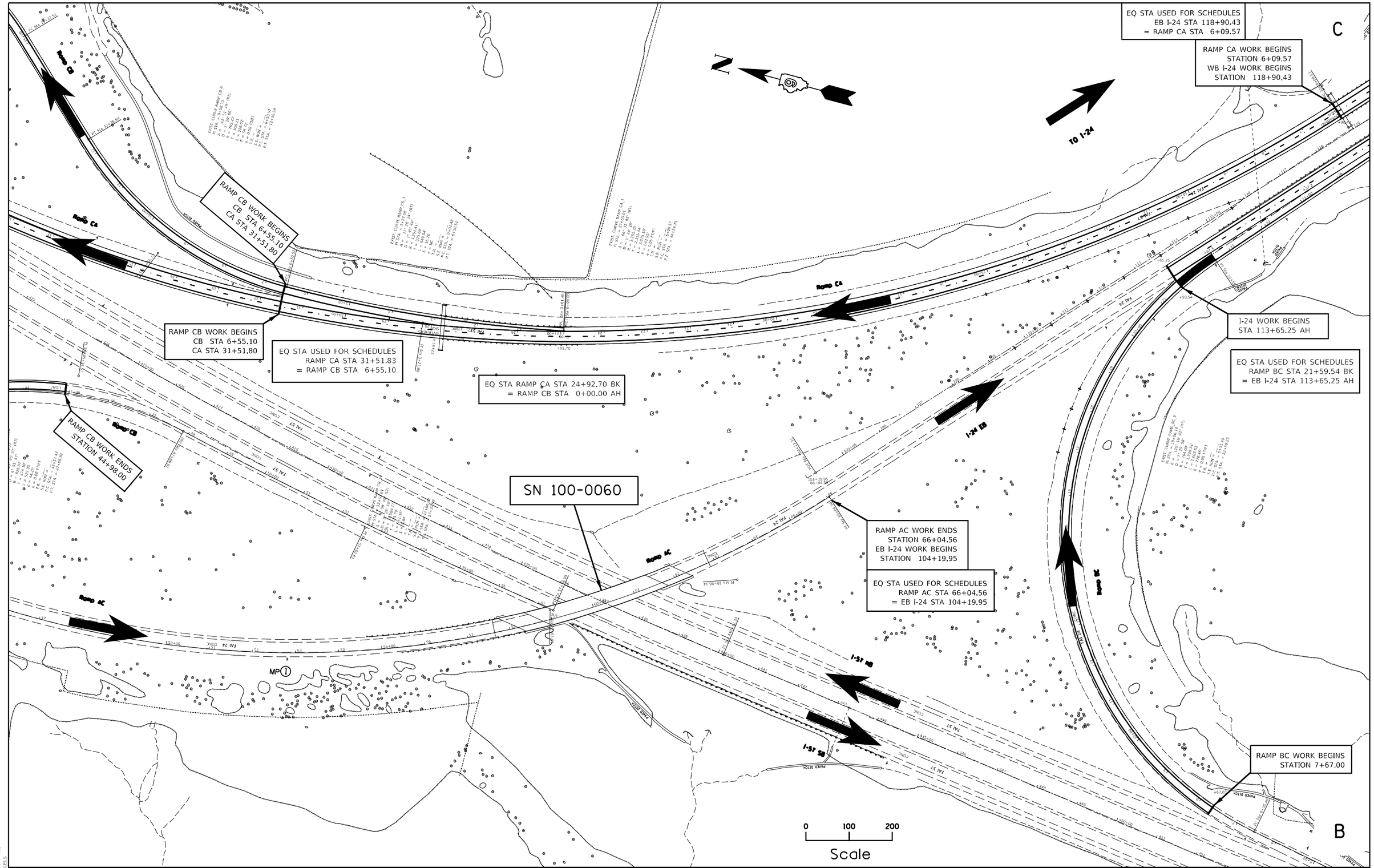
PLAN – I-57/I-24 INTERCHANGE
SHEET 1 OF 2

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	38
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON



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PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN – I-57/I-24 INTERCHANGE
SHEET 2 OF 2

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	39
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TUNNEL HILL / GOREVILLE INTERCHANGE

RAMP A

RAMP D

RAMP A WORK BEGINS
STA 0+11.40

RAMP A WORK ENDS
STA 14+96

RAMP B WORK ENDS
STA 11+60.6

RAMP C WORK BEGINS
STA 0+10.13

RAMP D WORK BEGINS
STA 0+00

RAMP D WORK ENDS
STA 11+12

SHLD WIDTH TRANSITION

SHLD WIDTH TRANSITION

SHLD WIDTH TRANSITION

10' OUTSIDE SHLD

6' OUTSIDE SHLD

10' OUTSIDE SHLD

6' OUTSIDE SHLD

10' OUTSIDE SHLD

WORK INCLUDED WIYH MAIN LINE

WORK INCLUDED WIYH MAIN LINE

044-0035

FAI 24

FAI 24

FAI 24

FAI 24

7 MP

7 MP

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

RIPRAP

RIPRAP

RIPRAP

RIPRAP

PAVED DITCH

PAVED DITCH

54"

36"

36"

24"

0 100 200

Scale

MODEL: $MODELNAME$
FILE NAME: $FILEL$

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	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN – TUNNEL HILL / GOREVILLE INTERCHANGE
SHEET 1 OF 2

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	40

CONTRACT NO. 78912

ILLINOIS | FED. AID PROJECT

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TUNNEL HILL / GOREVILLE INTERCHANGE

RAMP A WORK BEGINS
STA 0+11.40

10' OUTSIDE SHLD

RAMP B

RAMP B WORK ENDS
STA 11+60.6

10' OUTSIDE SHLD

SHLD WIDTH
TRANSITION

RAMP B WORK BEGINS
STA 0+00

WORK INCLUDED WIYH MAIN LINE

SHLD WIDTH
TRANSITION

6' OUTSIDE SHLD

044-0035

FAI 24

RAMP D WORK ENDS
STA 11+12

6' OUTSIDE SHLD

SHLD WIDTH
TRANSITION

WORK INCLUDED WIYH MAIN LINE

SHLD WIDTH
TRANSITION

RAMP C WORK ENDS
STA 15+24.7

10' OUTSIDE SHLD

RAMP C

RAMP C WORK BEGINS
STA 0+10.13

0 100 200

Scale

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN – TUNNEL HILL / GOREVILLE INTERCHANGE
SHEET 2 OF 2

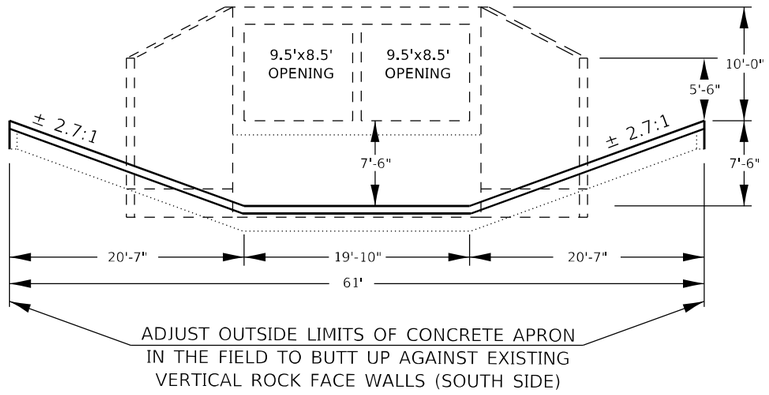
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	41
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

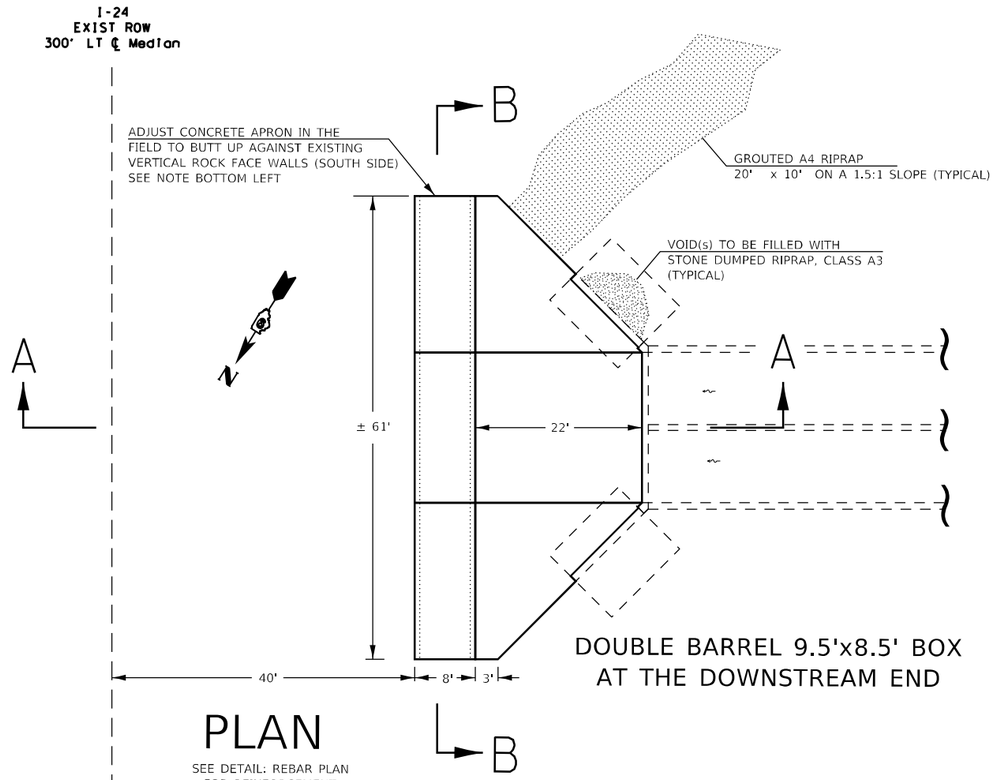
**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

REPAIR TO EAST END OF SN 044-2005



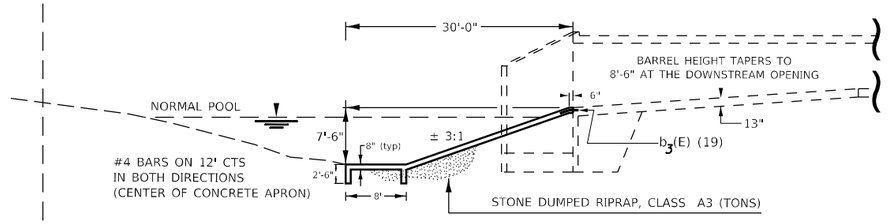
ELEVATION SECTION B-B



PLAN

SEE DETAIL: REBAR PLAN
FOR REINFORCEMENT

DOUBLE BARREL 9.5'x8.5' BOX
AT THE DOWNSTREAM END



ELEVATION - SECTION A-A

SEE DETAIL: REBAR A-A
FOR REINFORCEMENT

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	37	#5	19'-10"	
a_1(E)	34	#5	24'-0"	
a_2(E)	19	#5	26'-0"	
a_3(E)	6	#5	14'-10"	
a_4(E)	2	#5	12'-6"	
b(E)	65	#5	10'-3"	
b_1(E)	19	#5	22'-10"	
b_2(E)	21	#5	25'-7"	
b_3(E)	25	#5	2'-6"	
d(E)	122	#4	3'-9"	
d_1(E)	42	#4	4'-0"	
Reinforcement Bars, Epoxy Coated			Pound	4500

NOTES:
- ACTUAL FIELD CONDITIONS WILL VARY
- COST OF ANY TREE REMOVAL IN ORDER TO ACCESS THE JOB SITE TO BE INCLUDED IN THE COST OF CONCRETE BOX CULVERTS
- REINFORCEMENT BARS DESIGNATED (E), SHALL BE EPOXY COATED
- THE MATERIAL EXCAVATED DURING THE CHANNEL EXCAVATION PROCESS MAY BE USED TO FILL THE SCOUR VOID IN THE CHANNEL
- COST OF CHANNEL EXCAVATION INCLUDED IN THE COST OF STONE DUMPED RIPRAP, CLASS A3

SEE EXPANDED VIEWS OF DETAILS
AND BAR DIAGRAMS NEXT SHEET

DESIGN STRESSES
F_s = 60,000 PSI
F'_c = 3,500PSI

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	Cu Yd	117.6
Reinforcement Bars, Epoxy Coated	Cu Yd	4500
Stone Dumped Rip Rap, Class A3	Tons	35
Stone Dumped Rip Rap, Class A4	Tons	17
Grout For Use With Rip Rap	Cu Yd	4
TC&P 701406	L Sum	*

* TO BE INCLUDED IN ROADWAY PLAN L SUM 1

CULVERT REPAIRS I-24 JOHNSON CO SN 044-2005

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

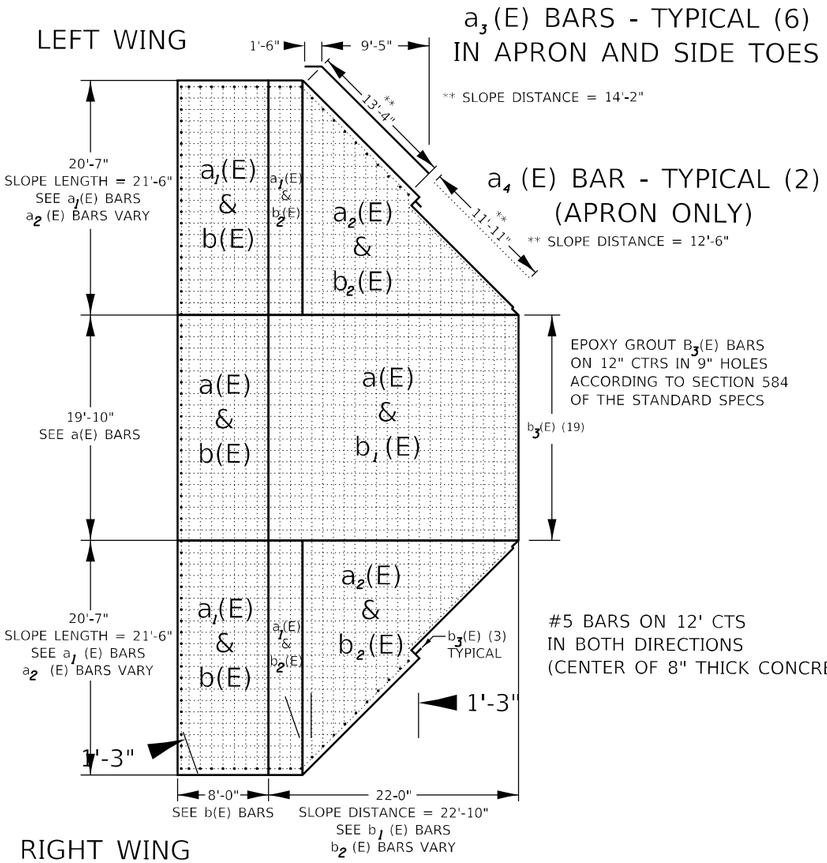
REPAIR TO EAST END OF SN 044-2005
SHEET 1 OF 2

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	42
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON



a3(E) BARS - TYPICAL (6) IN APRON AND SIDE TOES

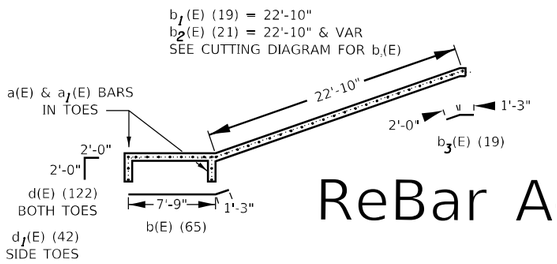
a4 (E) BAR - TYPICAL (2) (APRON ONLY)

** SLOPE DISTANCE = 12'-6"

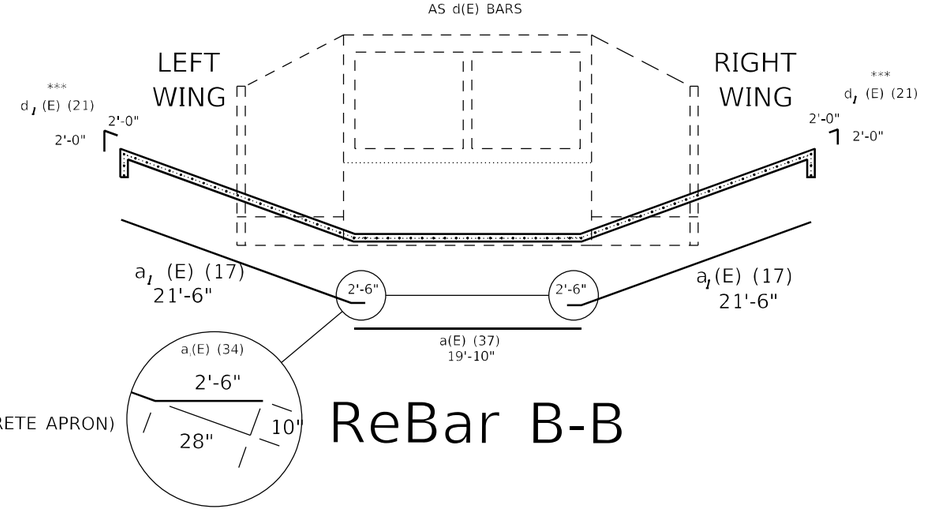
EPOXY GROUT B_3(E) BARS ON 12" CTRS IN 9" HOLES ACCORDING TO SECTION 584 OF THE STANDARD SPECS

#5 BARS ON 12' CTS IN BOTH DIRECTIONS (CENTER OF 8" THICK CONCRETE APRON)

ReBar - Plan

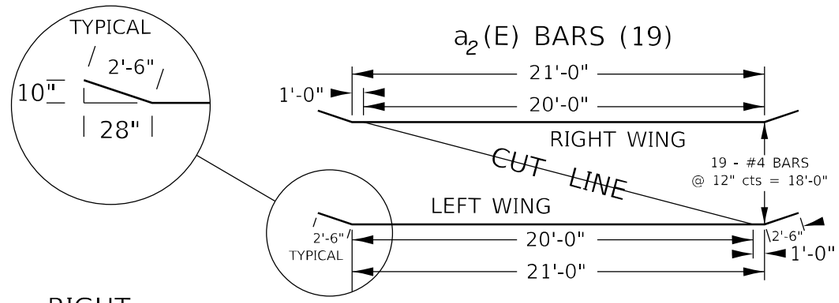


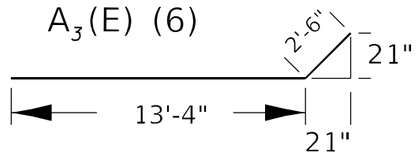
ReBar A-A

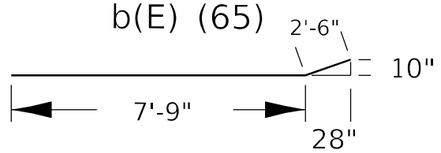


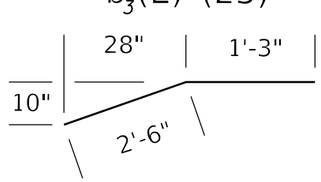
ReBar B-B

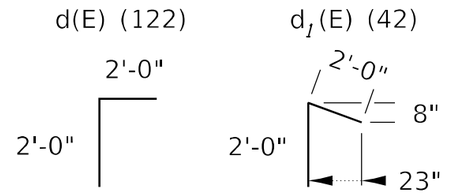
MIN BAR LAP
#4 = 2'-0"
#5 = 2' 6"











SN 044-2005
Reinforcement Bar Diagrams

USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

REPAIR TO EAST END OF SN 044-2005
SHEET 2 OF 2

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	43

CONTRACT NO. 78912
ILLINOIS | FED. AID PROJECT

MODEL: $MODELNAME$
FILE NAME: $FILE$

**1X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

SLOPE REPAIR AT SN 044-0030

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Dumped Rip Rap, Class A4	Tons	110
Grout For Use With Rip Rap	Cu Yd	24
TC & P 701406	L Sum	*

* TO BE INCLUDED IN PLAN L SUM 1

GROUTED A4 RIPRAP
6" THICK ON A 2:1 SLOPE (TYPICAL)

L X W X D
130' X 10' X 1.5'

143
144
145+00
146
147
148
MP 2:1
SN 044-0030
PAVED DITCH
RIPRAP
PULLEYS MILL ROAD
LITTLE SALINE CREEK
N

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE REPAIR AT SN 044-0030

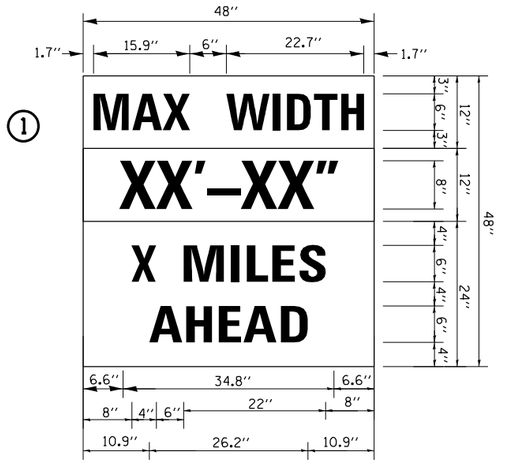
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	44
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

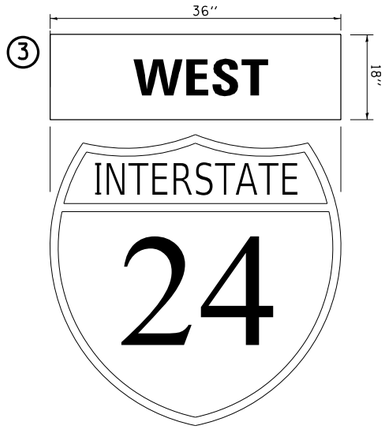
SIGN LEGEND



① **W12–I103**

W12-1103 (WIDTH IS 8D);
NO BORDER, BLACK ON WHITE; "MAX WIDTH" D;
NO BORDER, BLACK ON ORANGE; "XX'-XX"" D;
NO BORDER, BLACK ON WHITE; "X MILES" D; "AHEAD" D

② **M3–2 & M1–1**



③ **M3–4 & M1–1**

DETOUR NOTES:

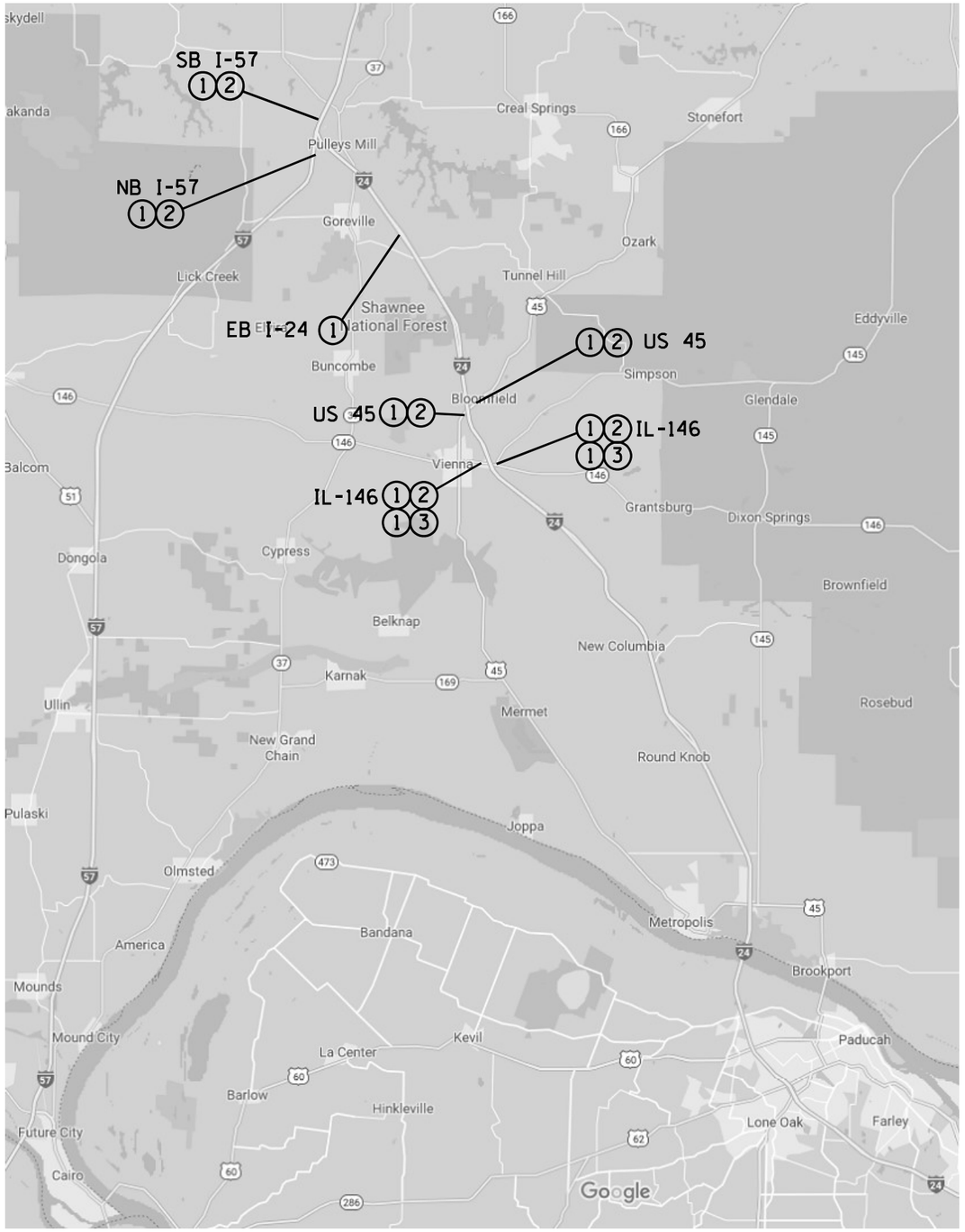
1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.

   THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 AND NO OTHER COMPENSATION WILL BE ALLOWED.

   FOR WORK ON ALL STRUCTURES, THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 14'-3'' OR AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

N

SB I-57



WIDE LOAD SIGNING PLAN

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING PLAN

SCALE: | SHEET OF SHEETS | STA. | TO STA.

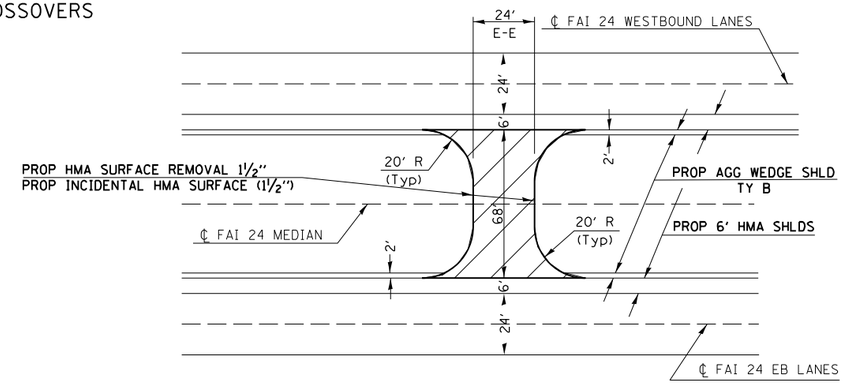
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	45
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

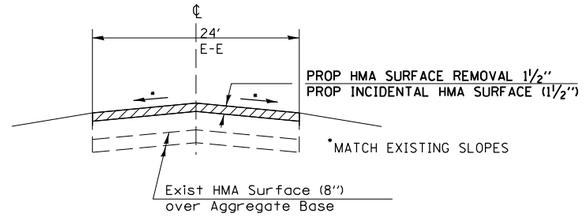
DETAIL FOR MEDIAN CROSSOVERS

PLAN VIEW - MEDIAN CROSSOVER



TO BE USED **
STA 125+90 MP 1.662
STA 271+96 MP 4.428
STA 390+40 MP 6.671
STA 473+20 MP 8.239
STA 140+70 MP 9.941

CROSS SECTION - MEDIAN CROSSOVER



** SEE PAVING SCHEDULE (EBL) FOR INCIDENTAL HMA

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY HOT-MIX ASPHALT TRANSITIONS

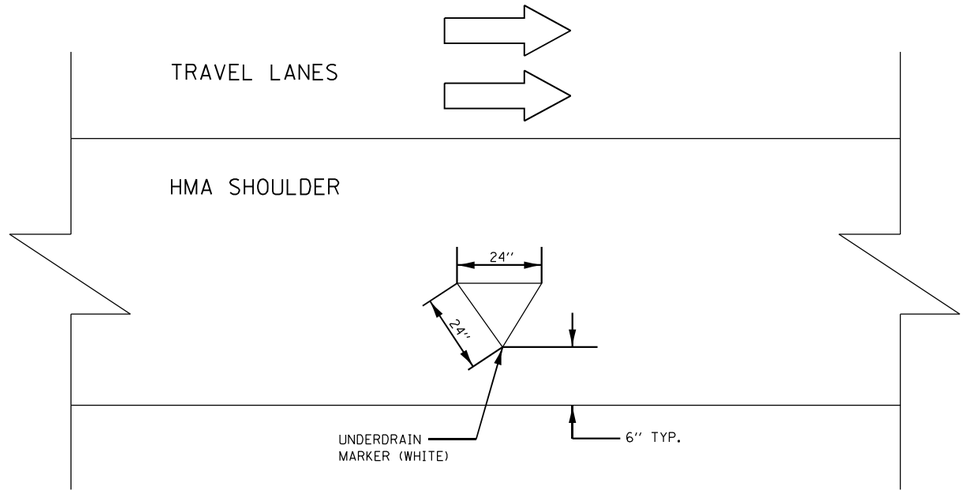
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	46
			CONTRACT NO. 78912	
		ILLINOIS	FED. AID PROJECT	

*!X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

TYPICAL UNDERDRAIN OUTLET MARKER DETAIL



FROM CN 98758* (2005) pp 23-31

WILLIAMSON CO	49
JOHNSON CO	358
PROJECT TOTAL	407

*See ePlans 98758 (2005)

NOTES:

TO BE PAID FOR AS
THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS
PIPE UNDERDRAIN HDWLs X 2 (USE 2 SQ FT FOR AREA)
PROJECT TOTAL = 407 X 2 = 814

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MEDIAN CROSSOVERS, PIPE UNDERDRAIN MARKERS
UNEVEN LANE MARKER

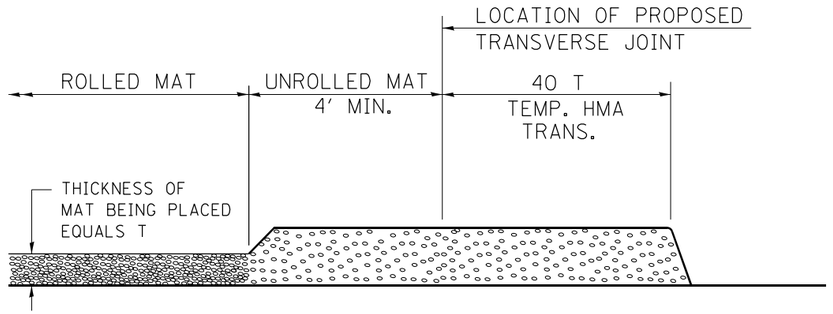
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	47
			CONTRACT NO. 78912	
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

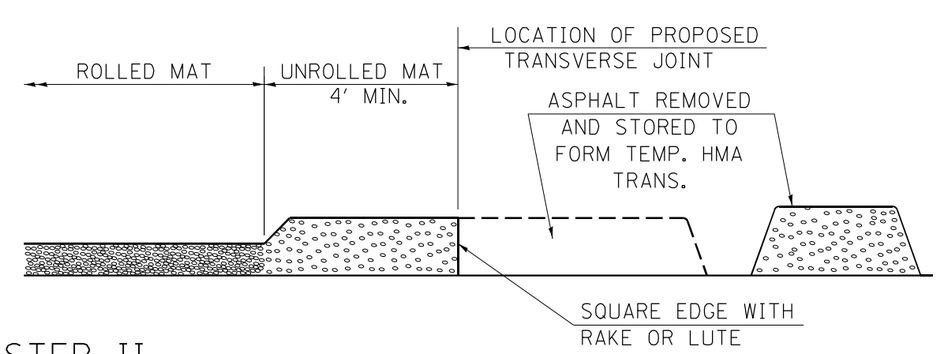
WILLIAMSON/JOHNSON

TEMPORARY HOT-MIX ASPHALT TRANSITIONS



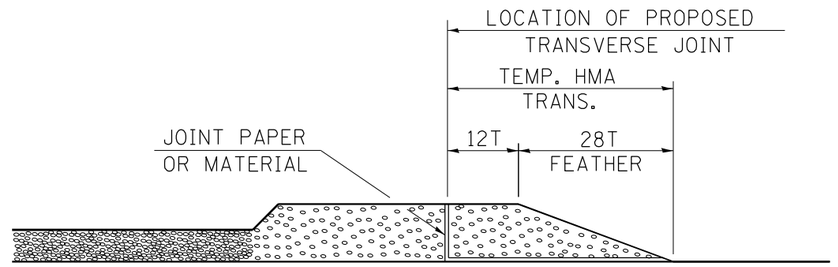
STEP I

1. PLACE HOT-MIX ASPHALT MAT, LENGTH 40 TIMES THE THICKNESS OF THE MAT BEING PLACED PAST THE PROPOSED TRANSVERSE JOINT LOCATION USING NORMAL OPERATING PROCEDURES.
2. EXTREME CARE SHOULD BE TAKEN TO MAINTAIN ENOUGH MATERIAL IN FRONT OF THE SCREED TO MAINTAIN REQUIRED PAVING DEPTH.



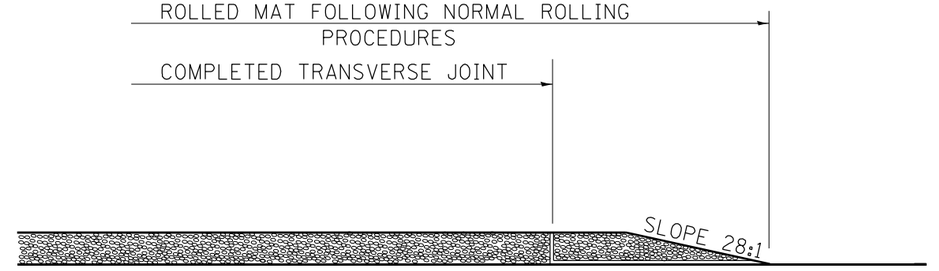
STEP II

1. MOVE THE PAVER OUT OF THE WAY AND REMOVE THE ASPHALT FROM THE AREA OF THE PROPOSED TEMPORARY HOT-MIX ASPHALT TRANSITION.
2. SQUARE UP THE END OF THE MAT WITH A RAKE OR LUTE.
3. NOTE THAT THE MAT WITHIN 4' OF THE END OF JOINT IS NOT TO BE ROLLED AT THIS TIME.



STEP III

1. JOINT PAPER OR OTHER PRESELECTED JOINT MATERIAL IS THEN PLACED IN THE CLEARED AREA AND THE EXCESS ASPHALT USED TO HAND FORM A TRANSITION TO THE DIMENSIONS SHOWN ABOVE.
2. NOTE THAT IN CONSTRUCTING THE TRANSITION, THE MAT DEPTH IS CONTINUED AS PART OF THE TRANSITION BEFORE FORMING THE FEATHER.



STEP IV

1. COMPLETE TEMPORARY TRANSITION BY ROLLING.
2. TO RESUME PAVING, AT THE JOINT, REMOVE TEMPORARY TRANSITION AND DISPOSE OF THE MATERIAL ACCORDING TO ART. 202.03 OF THE STD. SPECS. (COST INCLUDED IN THE CONTRACT).
3. CONSTRUCTING THE TEMPORARY TRANSITIONS WILL NOT BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 406.14 OF THE STANDARD SPECIFICATIONS.

REVISIONS

REDRAWN	2-15-89
REVISED	8-16-94
REVISED	01-09-07
RESIZED	05-8-08
REVISED	05-16-13

STD. 9-26

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MEDIAN CROSSOVERS, PIPE UNDERDRAIN MARKERS
UNEVEN LANE MARKER

SCALE: | SHEET OF SHEETS | STA. | TO STA.

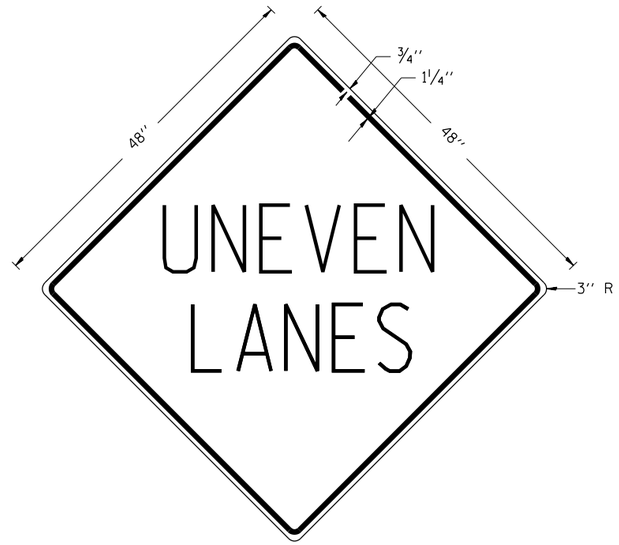
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	48
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

**X1-2,44-(2,3,4,5)RS-2;D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

UNEVEN LANES SIGN

W8-11 (48'' x 48'')



COLORS:

LEGEND AND BORDER - BLACK NON-REFLECTORIZED
BACKGROUND - ORANGE REFLECTORIZED

NOTE: PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLDMILLED OR BEFORE RESURFACING OPERATIONS BEGIN, THE CONTRACTOR SHALL HAVE ERECTED ''UNEVEN PAVEMENT'' SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE ''UNEVEN PAVEMENT'' SIGNS UNTIL THE RESURFACING OPERATIONS ARE COMPLETED.

IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

REVISIONS

DRAWN	2-15-89
REVISED	4-06-93
REDSIGNED	
RESIZED	
REVIEWED	5-17-13

STD. 9-41

MODEL: $MODELNAME$
FILE NAME: $FILE$

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MEDIAN CROSSOVERS, PIPE UNDERDRAIN MARKERS
UNEVEN LANE MARKER

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	**	*	160	49
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

**X1-2,44-(2,3,4,5)RS-2:D9 BRIDGE RESURF 2024-1

WILLIAMSON/JOHNSON

Structure 100-0059 was originally constructed in 1972 as FAI Route 24 (I-24 EB), Contract 78198, Section X1-2HB-2 at Station 25+30.08 in Williamson County. In 2014, the structure received repairs with Contract 78424, Section 09 CM BRIDGE REP. 2015-1. The deck was repaired (Full depth and Partial depth and received a Waterproofing Membrane System and Polymerized HMA Surface Course. The expansion bearings in the Abutments were replaced with elastomeric bearings. Abutments received Structural Repair of Concrete (Less than or equal to 5"). Silicone Joint Sealer (1½") was installed in the joint.

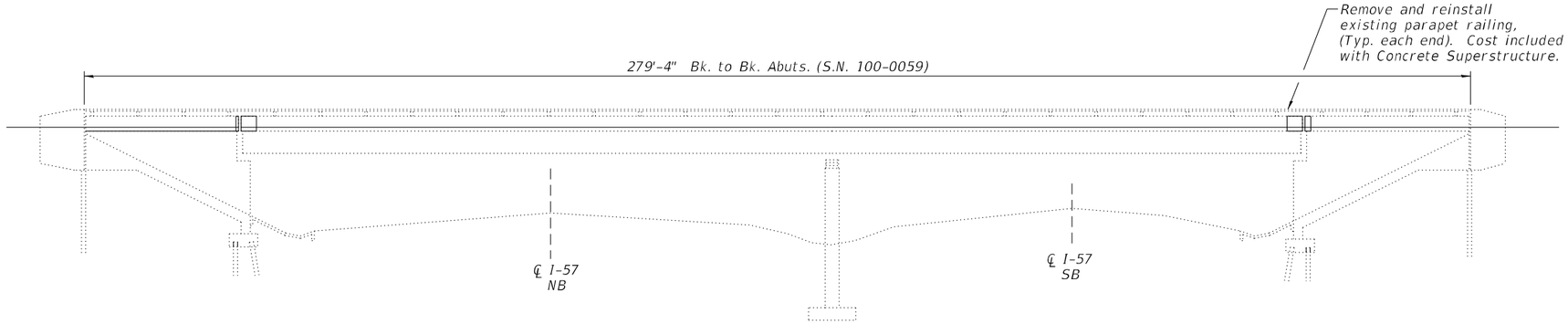
The existing structure is a two span steel continuous multi beam bridge. The superstructure consists of four 54" plate girders supporting a nominal 9¾" thick reinforced concrete deck. The superstructure is supported by a multi-column pier on a spread footing and two vaulted abutments on concrete piles. The approach spans are supported by four 36" PPC I-beams.

The structure has an overall length of 279'-4" from back to back of approach bents. The deck has an out to out width of 28'-0" and a deck (clear area) width that is 24'-6", base to base of curb.

Bridge will be closed and traffic detoured for the duration of construction activities.

PROPOSED WORK

1. Perform Bridge Deck Scarification on Bridge Deck, Approach Slabs
2. Remove existing parapet railing.
3. Removal of Deck Ends and Parapet at Deck Ends.
4. Removal of Existing Joints.
5. Pour Deck Ends and Parapet.
6. Reinstall existing parapet railing.
7. Insert Rubber Strip Seal into Locking Edge Rails.
8. Place 1½" HMA Inlay on Bridge Deck, Approach Slabs.



DESIGN STRESSES

FIELD UNITS

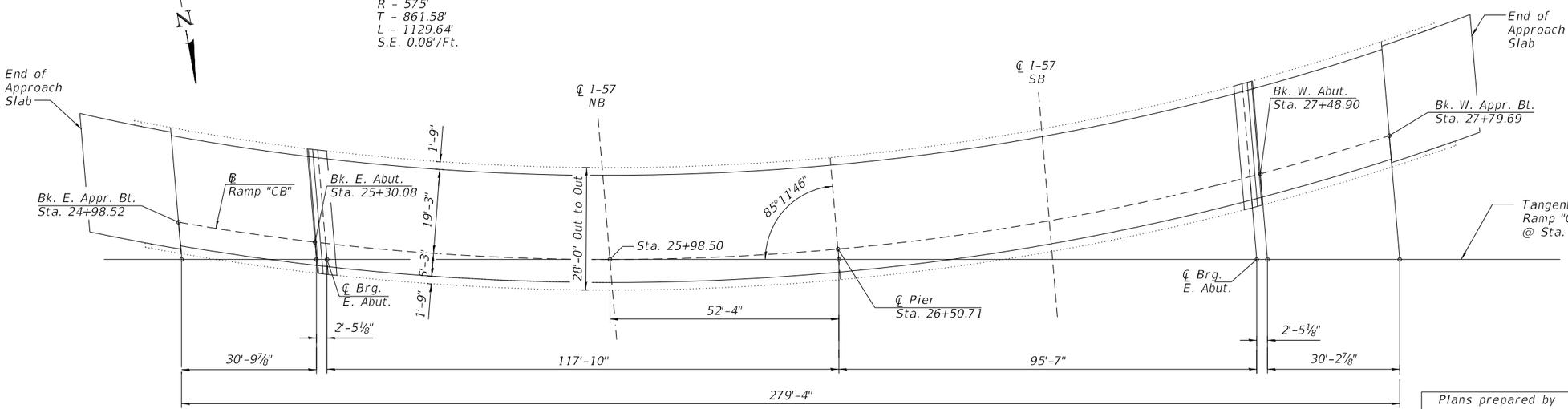
New Construction
f'c = 4,000 psi
fy = 60,000 psi

Existing Structure
fc = 1,200 psi
fc = 1,400 psi - Curb Parapet & Sub.
fy = 20,000 psi - Reinf.
fs = 20,000 psi - Struct. (A-36)

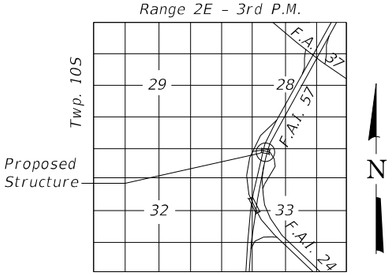
CURVE DATA

Values from Existing plans
Δ - 112°-33'-47"
D - 9°-57-47"
R - 575'
T - 861.58'
L - 1129.64'
S.E. 0.08'/Ft.

ELEVATION



PLAN



LOCATION SKETCH

Plans prepared by Civil Design, Inc.

LICENSED STRUCTURAL ENGINEER
JASON G. SCHRECKENBERG
081.006845
STATE OF ILLINOIS

Date: 05/05/2023

Expiration: 11/30/2024

GENERAL PLAN AND ELEVATION
I-24 WB OVER I-57
F.A.I. 24 SECT. X1-2HB-2
WILLIAMSON COUNTY
STA. 25+98.50
S.N. 100-0059

MODEL: Default
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LICENSE #184.003222

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 100-0059
SHEET 1 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	50
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

TOTAL BILL OF MATERIAL

ITEM	UNIT	100-0059
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, 9.5, Mix "E", N80	Tons	76
Concrete Removal	Cu. Yd.	7.6
Concrete Superstructure	Cu. Yd.	8.1
Protective Coat	Sq. Yd.	28
Stud Shear Connector	Each	72
Reinforcement Bars, Epoxy Coated	Pound	2,100
Preformed Joint Strip Seal	Foot	58
Bridge Deck Scarification 3/4"	Sq. Yd.	848

GENERAL NOTES

Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make the necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

Expansion joints shall be fabricated and installed according to the manufacturer's recommendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

Protective Coat shall be applied to entire new concrete surface and along the vertical faces of the parapets.

The deck surface shall have its final finish tined according to Aticle 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

The HMA mix shall be non-fine Grade E to match the roadway mix design.

INDEX OF SHEETS

1	General Plan and Elevation
2	General Data
3	Typical Cross Section
4	Concrete Removal
5	Concrete Superstructure
6	Wearing Surface
7	Preformed Joint Strip Seal Details
8-30	Existing Plans
31	Detour Signing - SN 100-0059
32	Ramp Closure - SN 100-0059

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 100-0059
SHEET 2 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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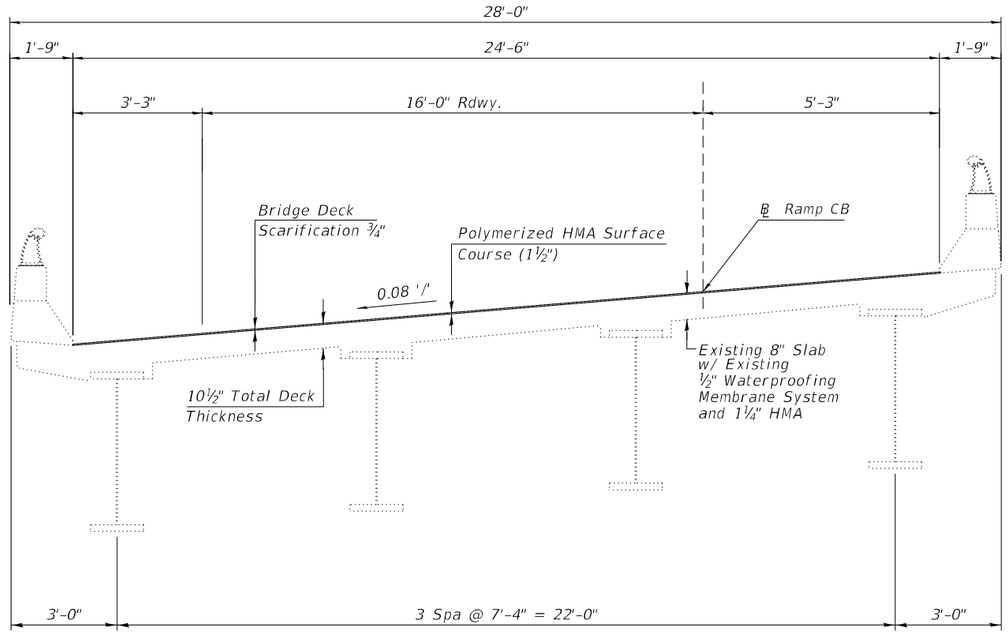
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



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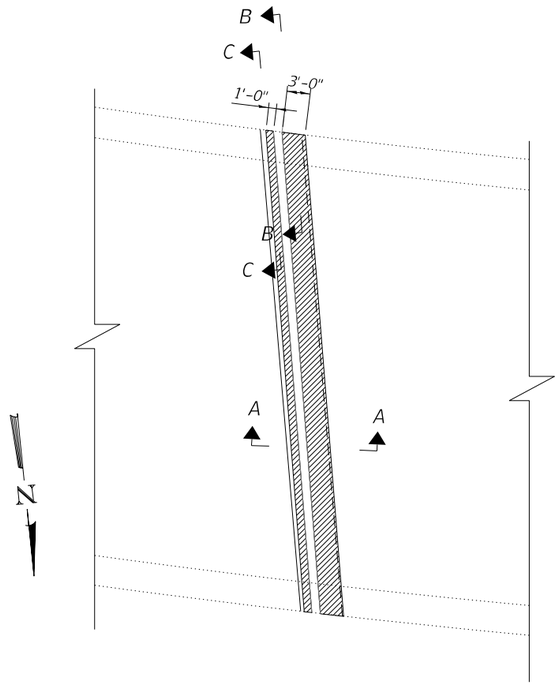
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTION
STRUCTURE NO. 100-0059
SHEET 3 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	52
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



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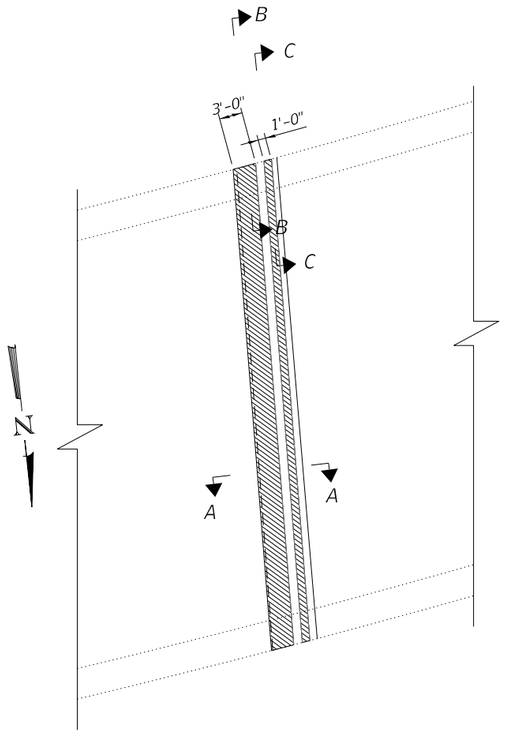

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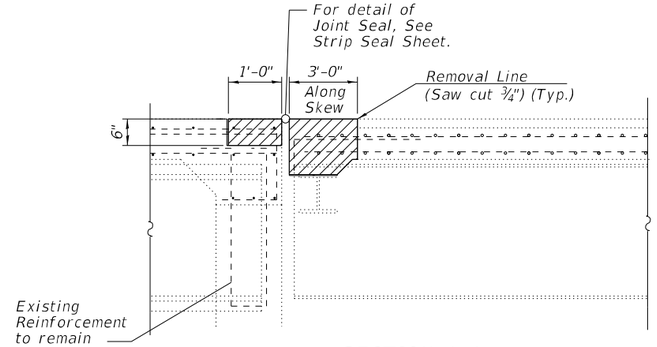
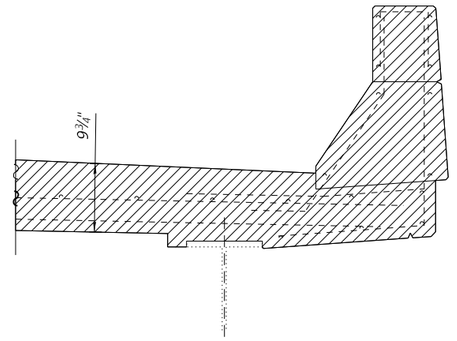


SECTION A-A



SECTION B-B

Concrete Removal

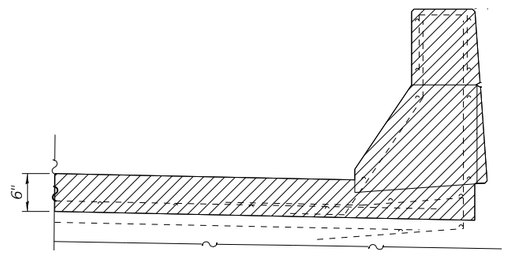
NOTES:

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the New Construction. Any reinforcement bars that are damaged during Concrete Removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Superstructures.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to the PPC I-Beams or other structural elements not intended for removal shall be repaired at no additional cost to the Department.



SECTION C-C

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	7.6

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL
STRUCTURE NO. 100-0059
SHEET 4 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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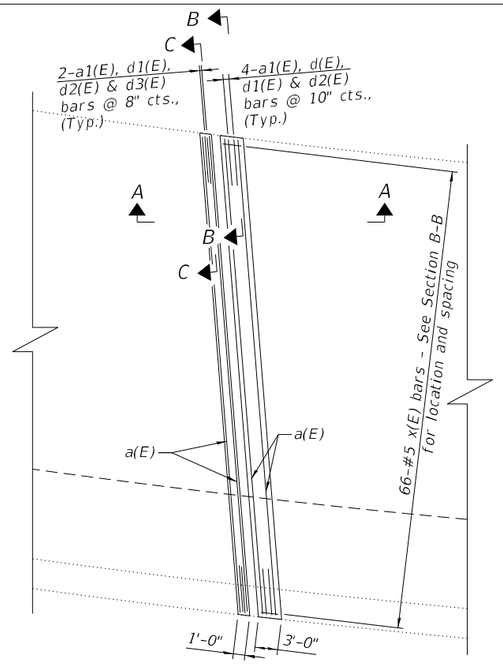
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



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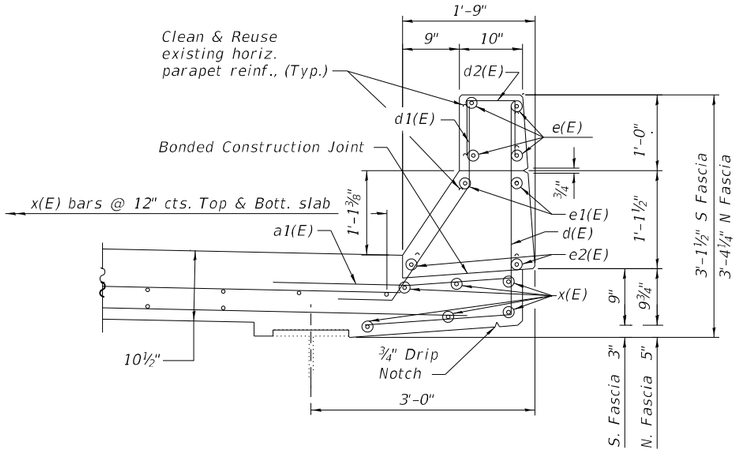
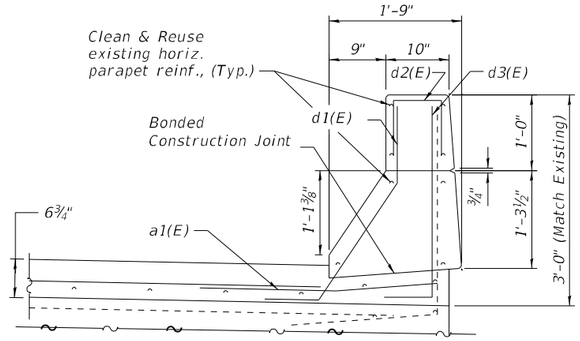
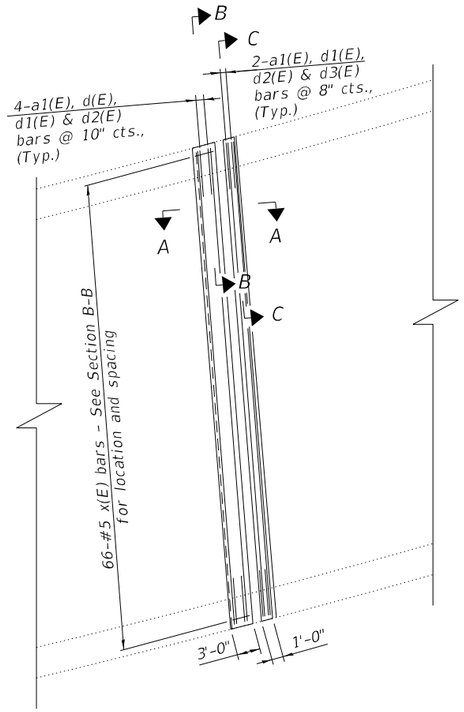


SECTION B-B



SECTION C-C



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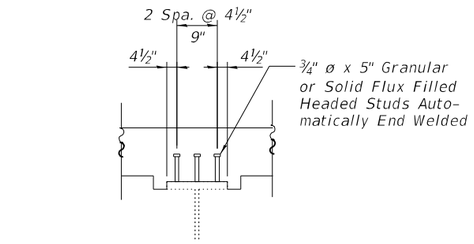
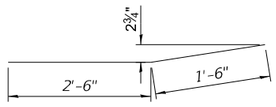


SECTION AT BEAM END



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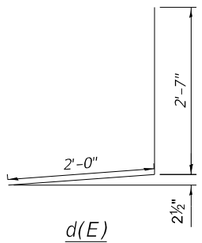

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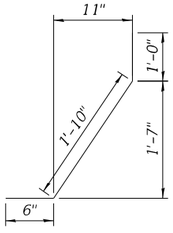

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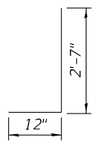
d2(E)



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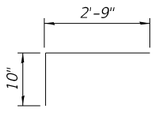
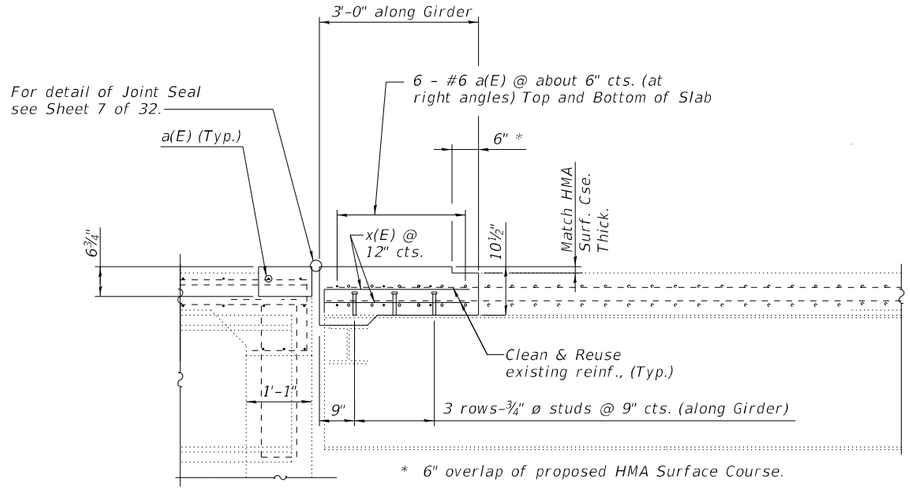


x(E)

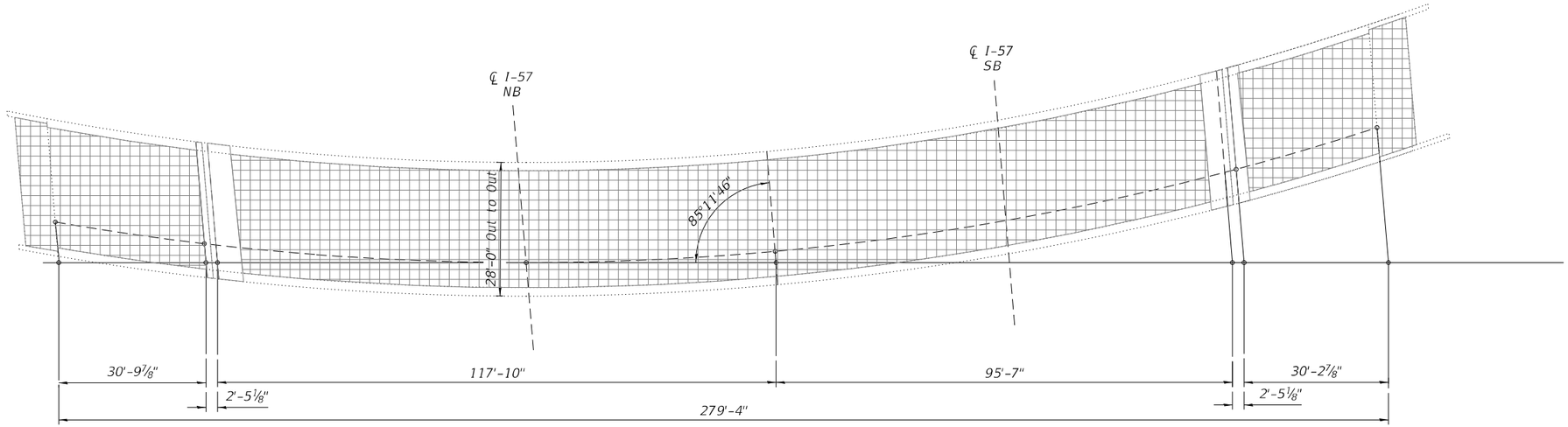


* 6" overlap of proposed HMA Surface Course.

SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	28	#6	27'-5"	
a1(E)	24	#6	4'-0"	
d(E)	16	#4	4'-7"	
d1(E)	24	#5	3'-4"	
d2(E)	24	#4	2'-1"	
d3(E)	8	#4	3'-7"	
x(E)	132	#5	3'-7"	
e(E)	16	#4	2'-10"	
e1(E)	8	#8	2'-10"	
e2(E)	8	#5	2'-10"	
Reinforcement Bars, Epoxy Coated			Pound	2,100
Concrete Superstructure			Cu. Yd.	8.1
Stud Shear Connectors			Each	72



PLAN

N

Bridge Deck Scarification, ¾", (Polymerized HMA Surface Course, 1½").

BILL OF MATERIAL
(Deck & Approach)

Item	Unit	Total
Polymerized HMA Surface Course, Stone Matrix Asphalt, 9.5, Mix "E", N80	Tons	76
Bridge Deck Scarification, ¾"	Sq. Yd.	848

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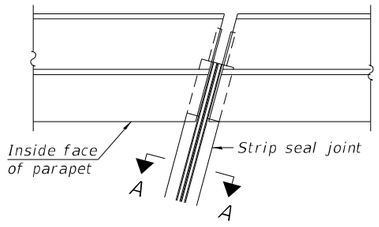
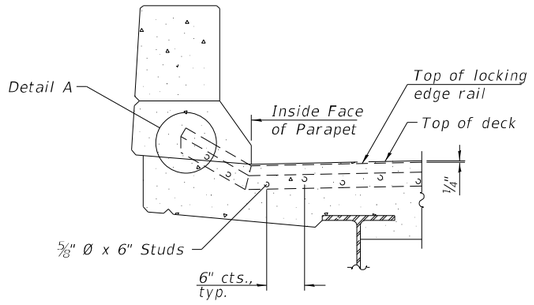
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE
STRUCTURE NO. 100-0059
SHEET 6 OF 32 SHEETS

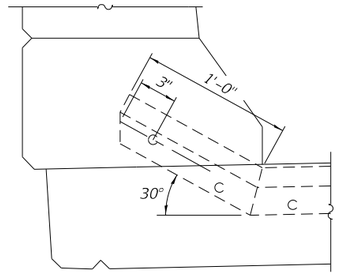
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	55
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



PLAN AT PARAPET



ELEVATION AT PARAPET



DETAIL A

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

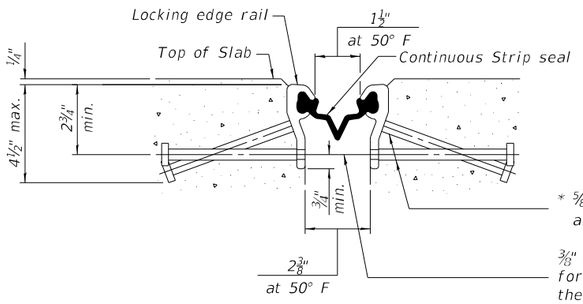
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

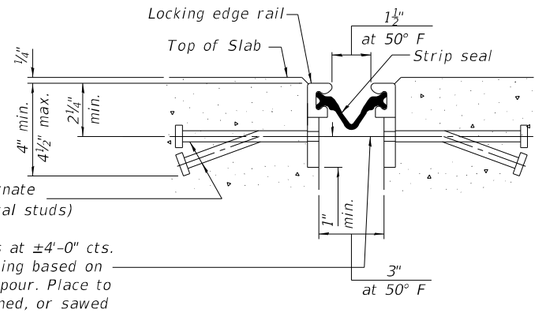
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT



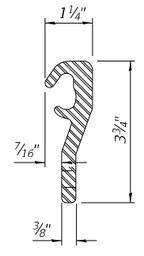
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

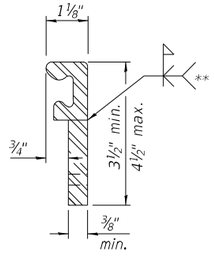
⅝" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



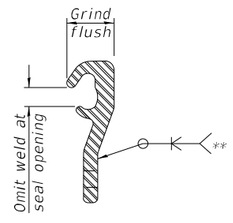
ROLLED
(EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	58

MODEL: Default
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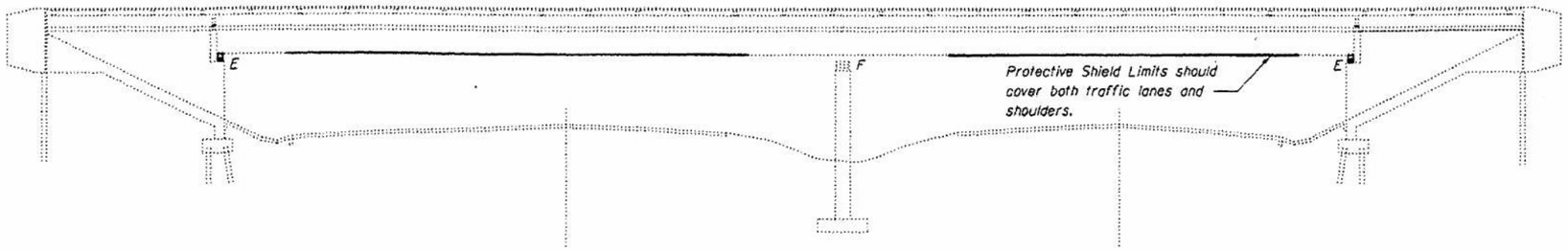
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 100-0059 (W.B.)
SHEET 7 OF 32 SHEETS

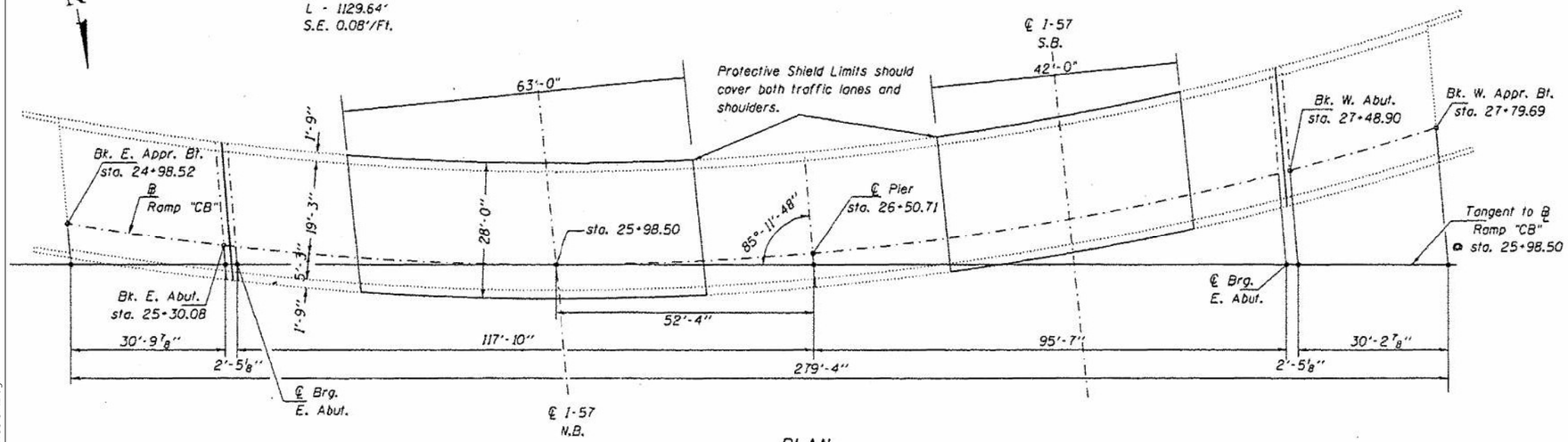
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	56
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

CURVE DATA

Values from Existing plans
Δ - 112°-33'-47"
D - 9°-57-47"
R - 575'
T - 861.58'
L - 1129.64'
S.E. 0.08'/Ft.



PLAN

GENERAL NOTES

All structural steel shall be AASHTO M 270 Grade 36 unless otherwise noted.
No field welding is permitted except as specified in the contract documents.
All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300,Type I. Cost included with Furnishing and Erecting Structural Steel.
If the analysis submitted to the Contractor for the jacking/temporary support system to be used show temporary stiffeners are required to prevent web crippling or bulking, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furished at the unit price bid for the work.
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on the project.
Existing structural steel shall only be cleaned and painted as required be the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
The bearings and any area needing touched up shall be painted according to the requirements of Point System 1 - OZ/E/U. The color of the Final Finish Coat for interior beams shall be GRAY, MUNSELL NO. 5B 7/1 and the exterior beams shall be INTERSTATE GREEN, MUNSELL NO. 7.5G 4/8.
Protective Shield shall be place before any work begins utilizing Traffic Control and Protection (Special) and shall be taken down once the work is completed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANITY
Waterproofing Membrane System	Sq. Yd.	768
Polymerized Hot-Mix Asphalt Surface Course, Mix "D", N90	Ton	63
Deck Slab Repair (Partial Depth)	Sq. Yd.	166
Deck Slab Repair (Full Depth)	Sq. Yd.	5
Protective Shield	Sq. Yd.	327
Elastomeric Bearing Assembly Type I	Each	8
Anchor Bolts, 1"	Each	32
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1,713
Silicone Joint Sealer, 1½"	Foot	58
Structural Repair of Concrete ≤ 5"	Sq. Ft.	42

Scope of Work

Close Structure
Setup Traffic Control Special as shown in Plans
Setup Protective Shield
Takedown Traffic Control Special
Complete Deck Slab Patching
Structural Repair of Concrete ≤ 5 inches
Silicone Joint and Bearing Replacement
Install WMS and HMA Overlay
Setup Traffic Control Special as shown in Plans
Takedown Protective Shield
Takedown Traffic Control Special

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD ILLINOIS
STATE OF ILLINOIS

D Carl Puzey 9/24/14
Expires 11/30/14

Design Stresses

FIELD UNITS (New Construction)
fy = 36,000 psi (AASHTO M270 Gr. 36)
FIELD UNITS (Existing Construction)
f'c = 1,200 psi (Deck Slab)
f'c = 1,400 psi (Curb, Parapet, Sub.)
fy = 20,000 psi (structural steel)
fy = 20,000 psi (reinforcement)
Vc = 75 psi (Ftgs.)
n = 10

FOR INFORMATION ONLY

BRIDGE REPAIRS
FAI 24 OVER FAI 57
WILLIAMSON COUNTY
STA. 25+30.08
S. N. 100-0059

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PLOT DATE =		CHECKED - KAS	REVISED -

CDI CIVIL DESIGN, INC. WBE / DBE EFFINGHAM, IL LICENSE #184.003222

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 8 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	57
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

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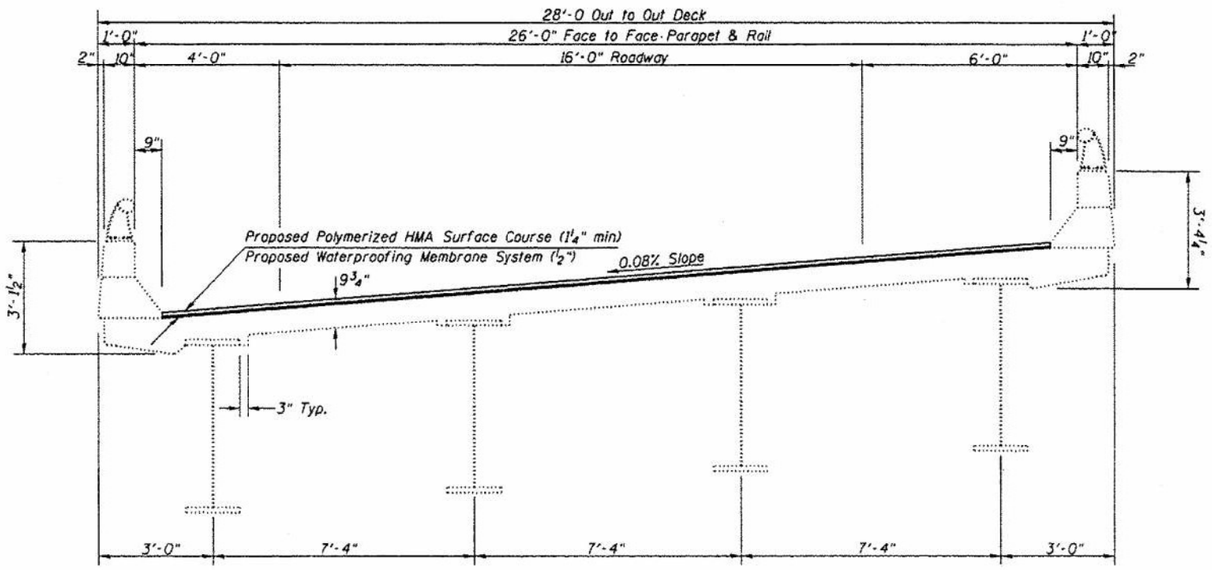

BRIDGE CROSS-SECTION
SHOWING NEW OVERLAY
LOOKING UP STATION

FOR INFORMATION ONLY

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CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

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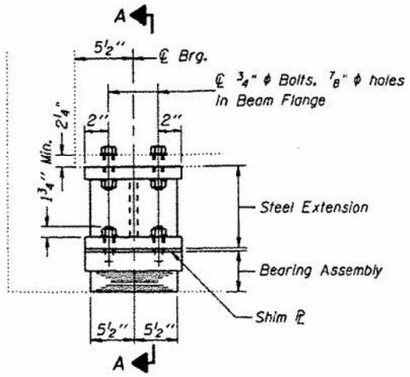
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

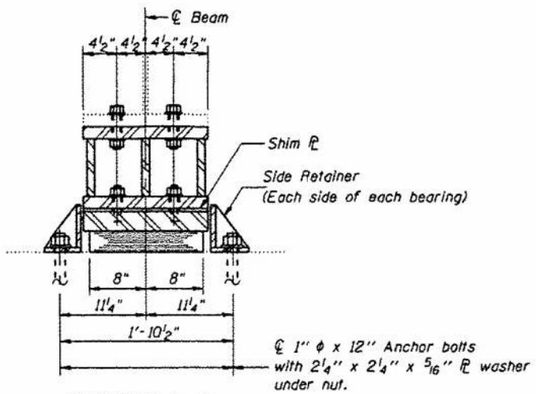
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 9 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	58
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (f_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

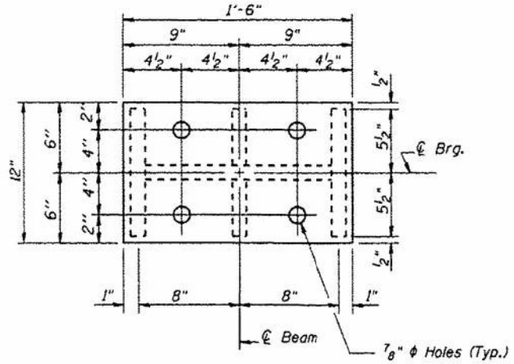
The minimum jack capacity required is 60 Tons.

Existing cross frame removal and reinstallation may be required to facilitate drilling holes, cost to be included with "Jack and Remove Existing Bearings".

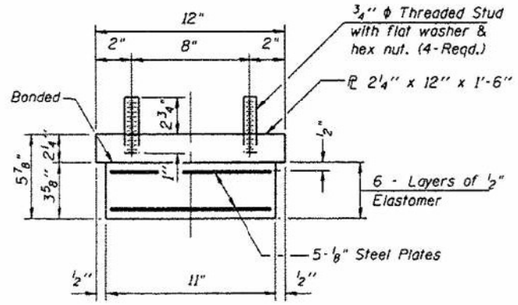
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

New steel extensions, connection bolts, Shim ℄'s are included in "Furnishing and Erecting Structural Steel".



PLAN-TOP & BOTTOM PLATE

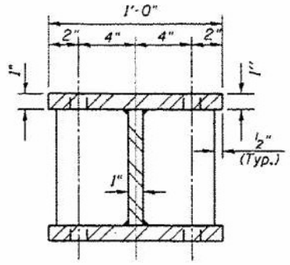


BEARING ASSEMBLY

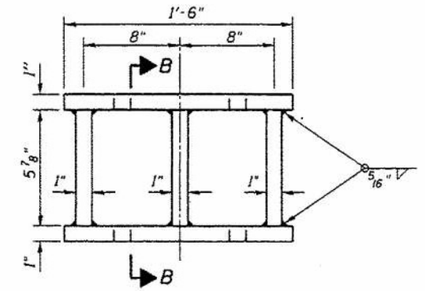
Note: Shim plates shall not be placed under Bearing Assembly.

GIRDER REACTIONS

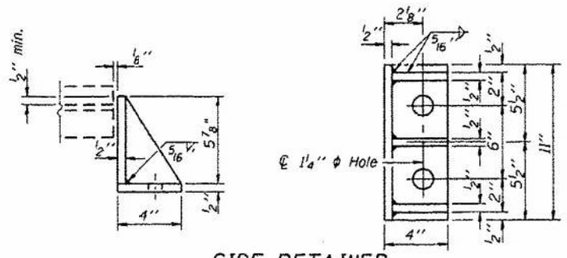
EAST ABUTMENT		
R℄	(K)	78.4
R℄	(K)	56.4
Imp.	(K)	11.6
R (Total)	(K)	146.4



SECTION B-B

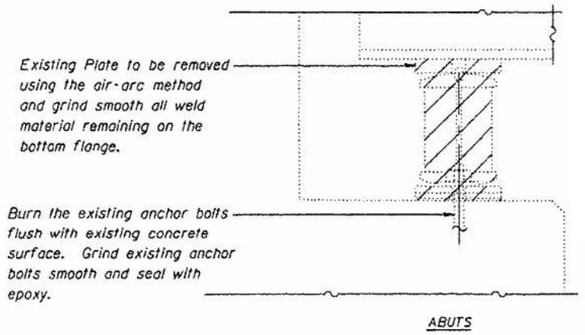


STEEL EXTENSION DETAIL



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



EXISTING BEARING REMOVAL DETAIL

Cost is included with Jack and Remove Existing Bearings

BILL OF MATERIAL EAST ABUT.

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	4
Anchor Bolts, 1"	Each	16
Jack and Remove Existing Bearings	Each	4
Furnishing and Erecting Structural Steel	Pound	890

BEARING DETAILS
EAST ABUTMENT
STRUCTURE NO. 100-0059

FOR INFORMATION ONLY

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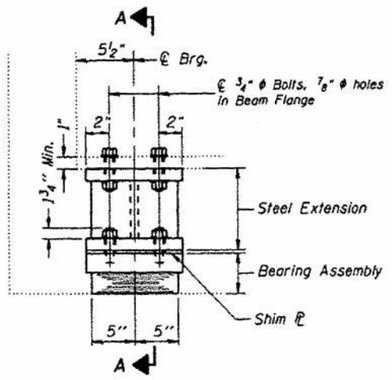
EFFINGHAM, IL
LICENSE #184.003222

USER NAME = | DESIGNED - RBT | REVISED -
PLOT SCALE = | CHECKED - JS | REVISED -
PLOT DATE = | DRAWN - RBT | REVISED -
| CHECKED - KAS | REVISED -

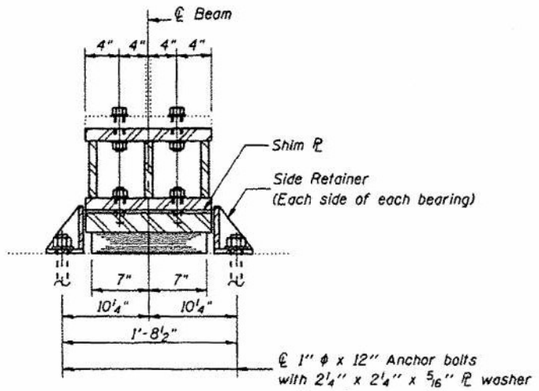
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 10 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	59
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

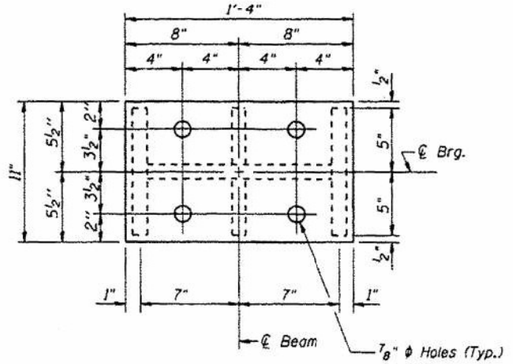
The minimum jack capacity required is 35 Tons.

Existing cross frame removal and reinstallation may be required to facilitate drilling holes, cost to be included with "Jack and Remove Existing Bearings".

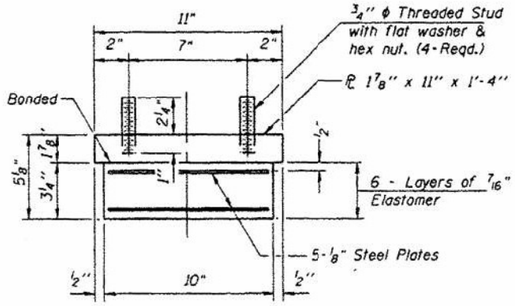
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

New steel extensions, connection bolts, Shim ℞'s are included in "Furnishing and Erecting Structural Steel".



PLAN-TOP & BOTTOM PLATE

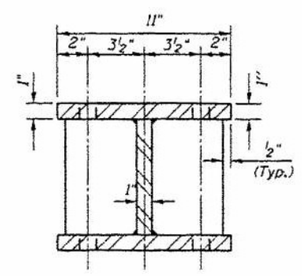


BEARING ASSEMBLY

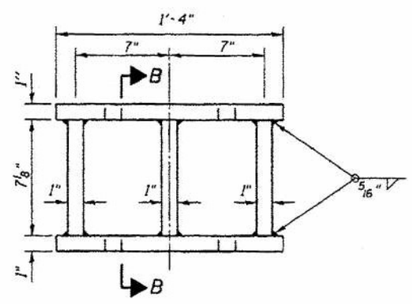
Note: Shim plates shall not be placed under Bearing Assembly.

GIRDER REACTIONS

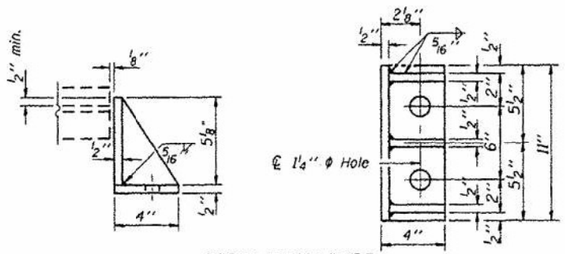
WEST ABUTMENT		
R℄	(K)	46.7
R℄	(K)	51.3
Imp.	(K)	11.6
R (Total)	(K)	109.6



SECTION B-B

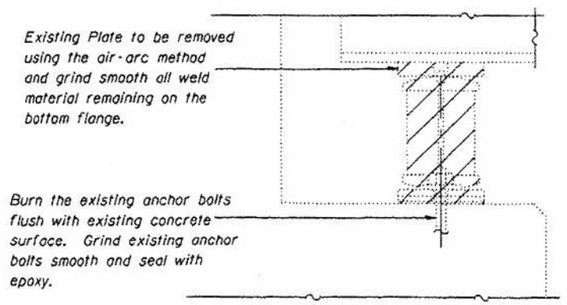


STEEL EXTENSION DETAIL



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ABUTS

EXISTING BEARING REMOVAL DETAIL

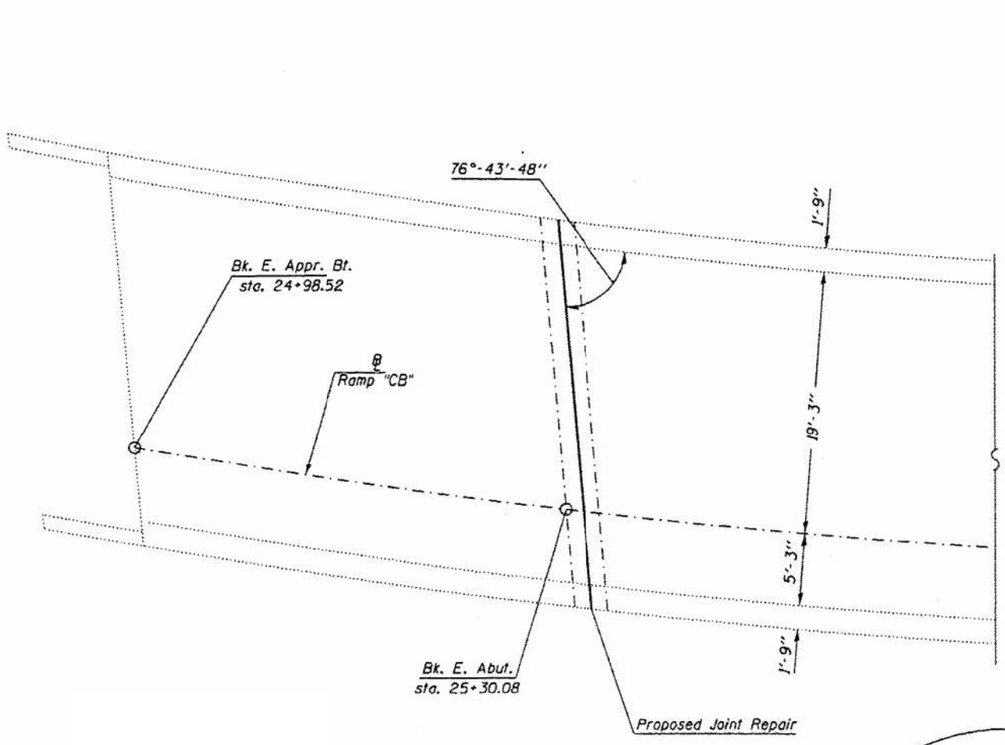
Cost is included with Jack and Remove Existing Bearings

BILL OF MATERIAL WEST ABUT.

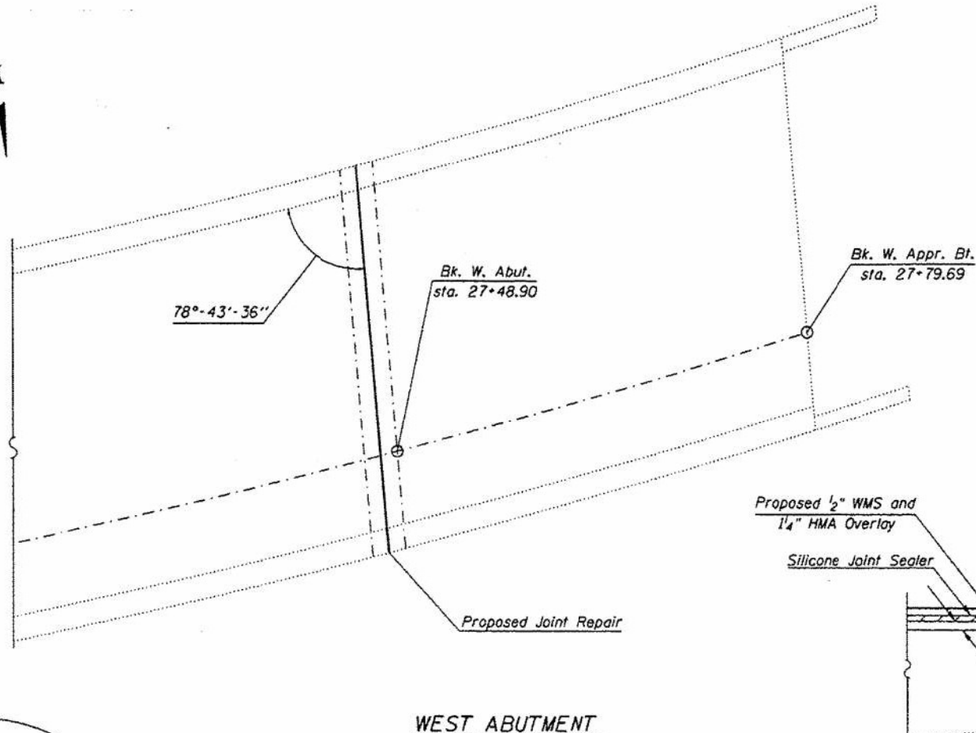
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	4
Anchor Bolts, 1"	Each	16
Jack and Remove Existing Bearings	Each	4
Furnishing and Erecting Structural Steel	Pound	823

BEARING DETAILS
WEST ABUTMENT
STRUCTURE NO. 100-0059

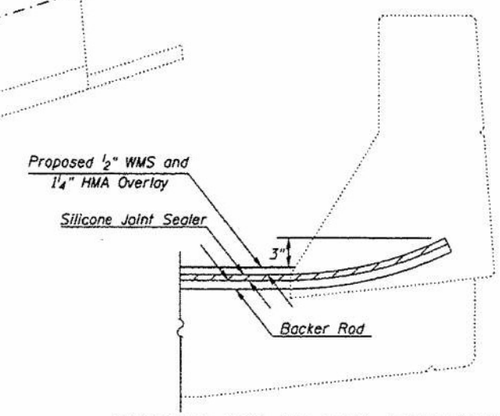
FOR INFORMATION ONLY



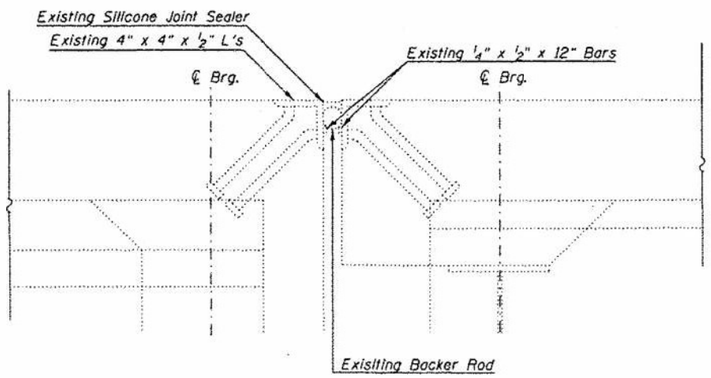
EAST ABUTMENT



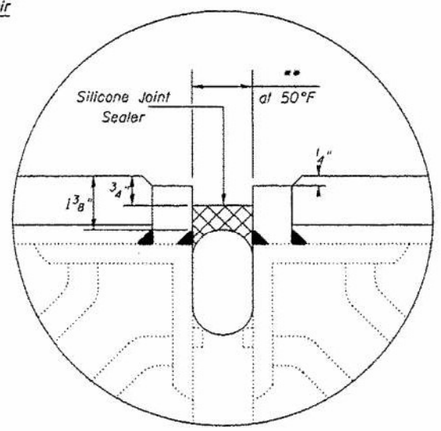
WEST ABUTMENT



TYPICAL END OF SEAL TREATMENT
AT EXPANSION JOINT

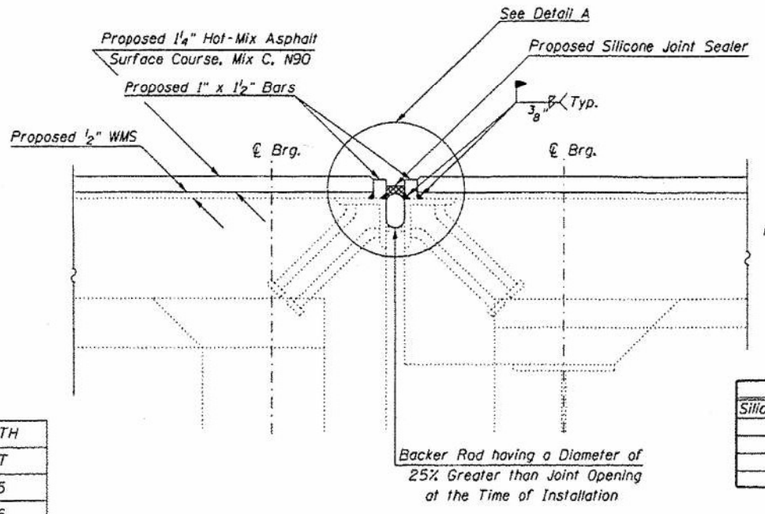


EXISTING JOINT DETAIL



DETAIL A

EXISTING OPENING "		LENGTH
		FOOT
WEST	1-1/2"	28.5
EAST	1-1/2"	28.6



PROPOSED JOINT REPAIR DETAIL

Notes:
The removal of the exisitng joint and Furnishing and Erecting of the proposed 1" x 1½" bars to be included in the cost of Silicone Joint Sealer, 1.5".

BILL OF MATERIAL

Item	Unit	Total
Silicone Joint Sealer, 1.5"	Foot	58

EXPANSION JOINT REPAIRS
STRUCTURE NO. 100-0059

FOR INFORMATION ONLY

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CDI — CIVIL DESIGN, INC. WBE / DBE — EFFINGHAM, IL — LICENSE #184.003222

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PLOT SCALE =	DRAWN - RBT	REVISED -	
PLOT DATE =	CHECKED - KAS	REVISED -	

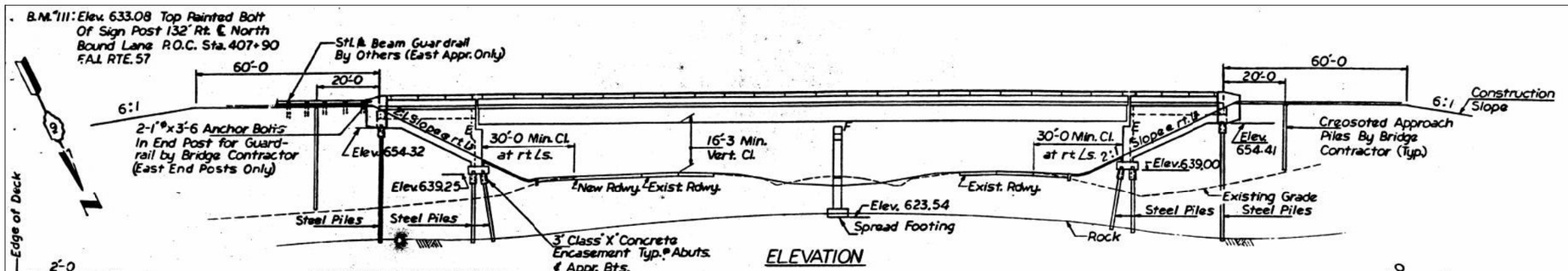
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 12 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	61
		CONTRACT NO. 78912		
		ILLINOIS FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB X1-2HB-2	WILLIAMSON	85	41
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		

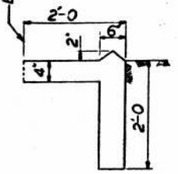
B.M. "111": Elev. 633.08 Top Painted Bolt Of Sign Post 132' Rt. ℄ North Bound Lane R.O.C. Sta. 407+90 F.A.I. RTE. 57



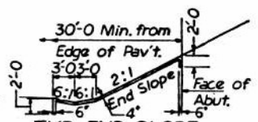
ELEVATION

CREOSOTED APPROACH PILES

	W. Appr.	E. Appr.
No. Reqd.	4	4
Length	17	34

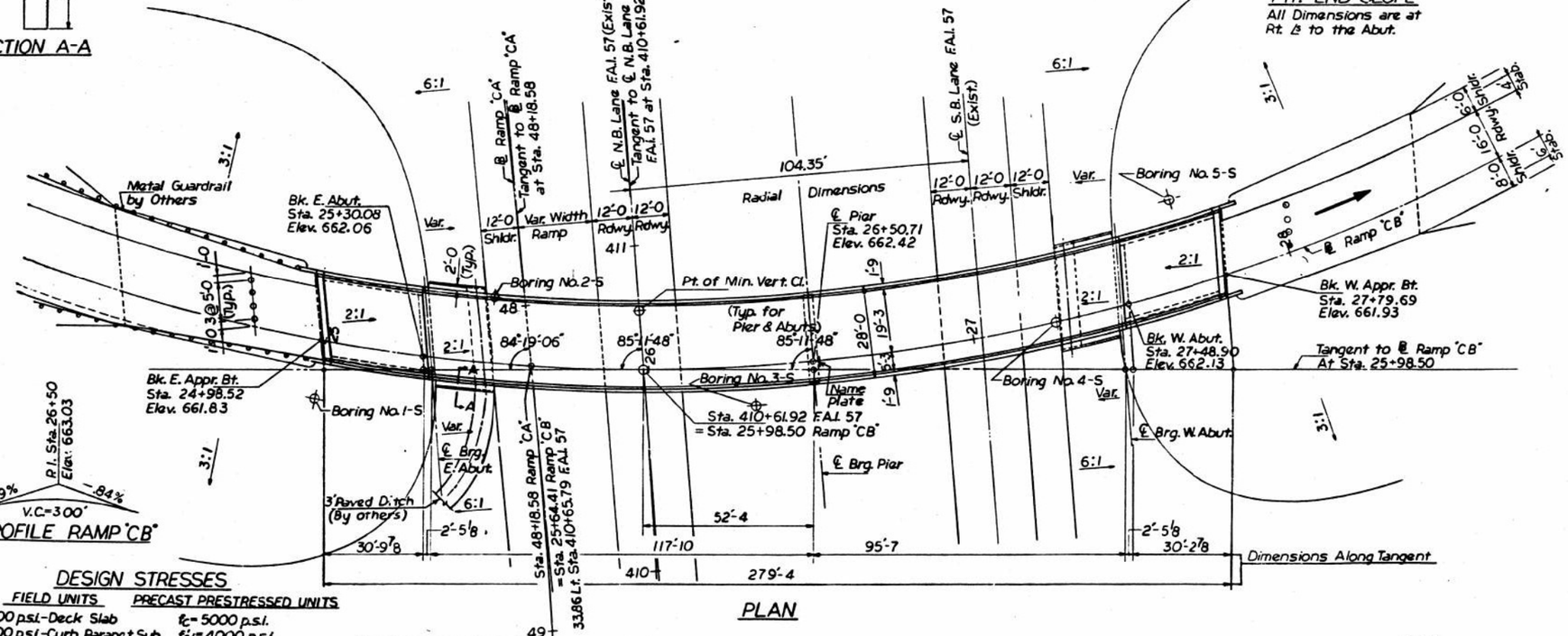


SECTION A-A



TYP. END SLOPE

All Dimensions are at Rt. ∠ to the Abut.



PLAN

PROFILE RAMP "CB"

DESIGN STRESSES

FIELD UNITS	PRECAST PRESTRESSED UNITS
f_c = 1200 p.s.i.-Deck Slab	f'_c = 5000 p.s.i.
f_c = 1400 p.s.i.-Curb, Parapet, Sub.	f'_{ci} = 4000 p.s.i.
f_s = 20,000 p.s.i.-Reinf.	f'_s = 248,000 p.s.i.-Strands
f_s = 20,000 p.s.i.-Struct.	f'_{si} = 173,600 p.s.i.-Strands
v_c = 75 p.s.i. Ftgs.	
n = 10	

Allowable ℄ Defl. = $\frac{L}{1000}$ Non-Comp.

Allowable Fut. Wearing Surf. = 25#/□'

Loading = HS20-44 & Alternate

STATION 25+98.50 BUILT 19 BY STATE OF ILLINOIS F.A.I. RT. 24 SEC. XI-2HB-2 F.A. PROJ. I-24-1(32)0 LOADING HS20

NAME PLATE

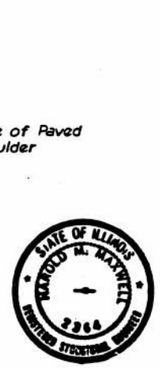
STANDARD 2113

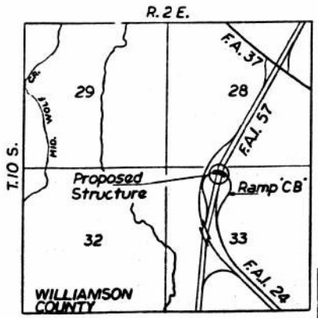
CURVE DATA

Curve	P.I.	Curve No.	△	D	R	T	L
N.B. Lane F.A.I. 57	419+75.42	—	19°-16'-30"	0°-28'-00"	12,277.70	2084.88	4130.36
Ramp "CA"	52+01.42	2	7°-23'-50"	0°-28'-05"	12,238.72	791.14	1580.07
Ramp "CB"	30+61.92	4	112°-33'-47"	9°-57'-52"	575.00	861.58	1129.64

Edge of Paved Shoulder	10'-0	12'-0	℄ N.B. Lane 12'-0	Edge of Pav't. 80.35'	12'-0	℄ S.B. Lane 12'-0	10'-0	Edge of Paved Shoulder
STATION								
408	633.41	633.86	634.01	633.81	633.81	633.96	633.81	633.49
409	635.49	635.76	635.86	635.74	635.62	635.79	635.61	635.33
410	637.17	637.55	637.69	637.55	637.45	637.59	637.42	637.09
411	638.77	639.16	639.31	639.17	639.15	639.26	639.10	638.75
412	640.06	640.53	640.68	640.59	640.54	640.67	640.53	640.20
413	641.35	642.01	642.08	641.91	641.95	642.09	641.94	641.58

EXISTING F.A.I. 57 PAVEMENT ELEVATIONS





LOCATION PLAN

GENERAL NOTES

1. ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.
2. FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" Ø, OPEN HOLES 13/16" Ø, UNLESS OTHERWISE NOTED.
3. CALCULATED WEIGHT OF STRUCTURAL STEEL 304,620 LBS.
4. THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.
5. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
6. ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.
7. SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 58# PER 100 SQ. FT.
8. THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
9. AN ALTERNATE STRAND PATTERN USING EXTRA HIGH STRENGTH PRESTRESSING STRAND (270K.S.I.) IS PERMITTED.
10. THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.
11. THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

BILL OF MATERIAL

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Rock Excavation for Structures	Cu.Yds.	7.4		7.4
Structure Excavation	Cu.Yds.	169	-	169
Furnishing & Erecting Structural Steel	L.S.		.5	.5
Aluminum Railing	Lin.Ft.		552	552
Class X Concrete	Cu.Yds.	237.7	281.3	519.0
Reinforcement Bars	Lbs.	25,030	66,800	91,830
Protective Coat	Sq.Yds.		981	981
Steel Piles (8BP36)	Lin.Ft.	1,008		1,008
Creosoted Piles, up to 20'	Lin.Ft.	68		68
Creosoted Piles, 20.1 to 38'	Lin.Ft.	136		136
Test Piles, Steel (8BP36)	Each	2		2
Name Plates	Each	1		1
Slope Wall, 4"	Sq.Yds.	164		164
Bridge Seat Sealer	L.S.	.5		.5
Furnishing and Erecting P.P.C.I-Beams, 36"	Lin.Ft.		126	126

FOR INFORMATION ONLY

TORNROSE, CAMPBELL & ASSOCIATES
CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2 HB 2
WILLIAMSON COUNTY
GENERAL PLAN & ELEVATION
RAMP "CB" STATION 25+98.50

Designed By: L.P.	Drawn By: W.C.	Quantities By: H.M.
Checked By: M.M.	Checked By: M.M.	Checked By:

CDI — CIVIL DESIGN, INC. WBE / DBE — EFFINGHAM, IL LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 13 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	62
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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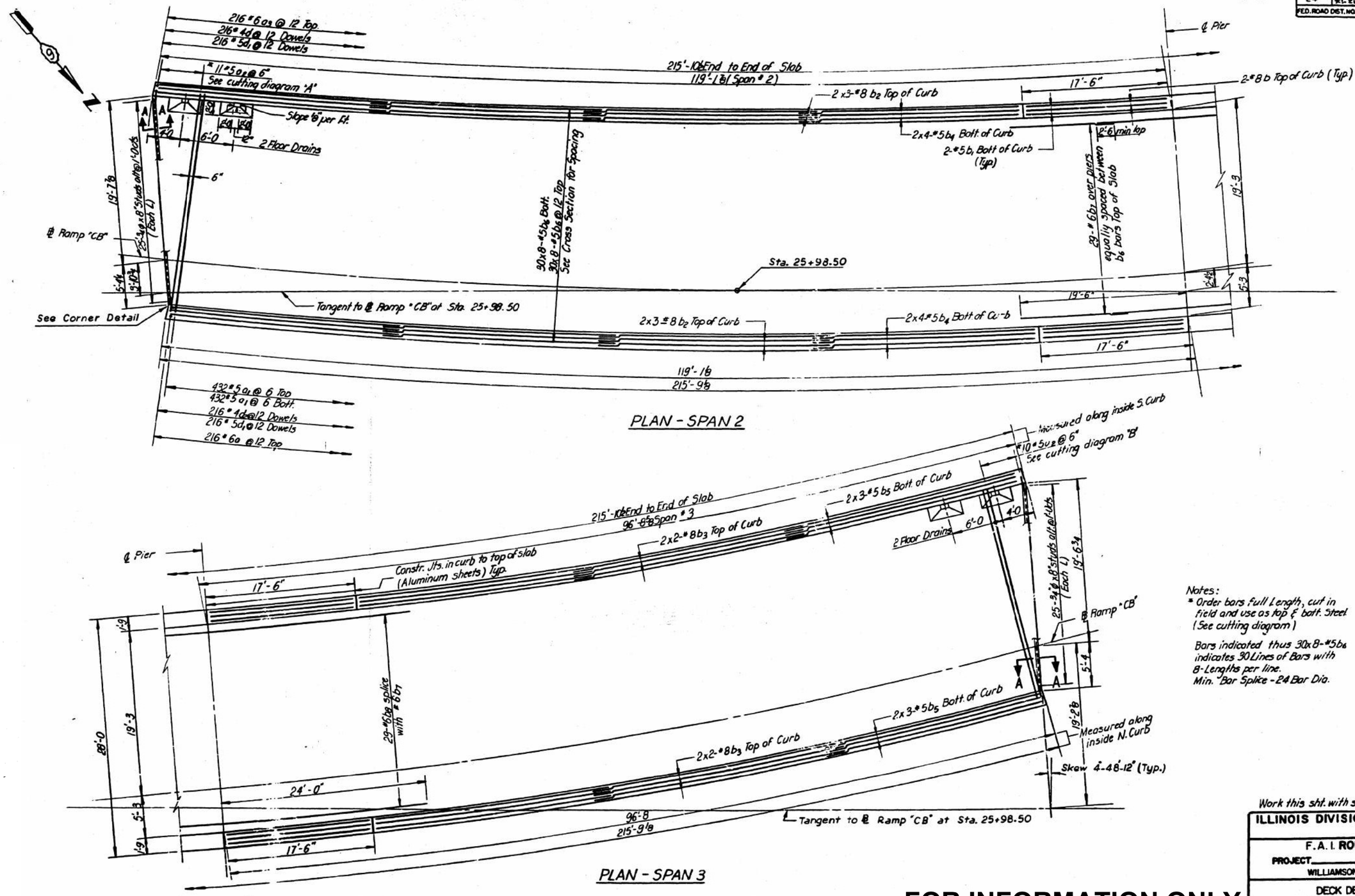
5/1/2023 3:04:23 PM

Sht. 2 of 19

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB & X1-2HB-2	WILLIAMSON	95	42
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



PLAN - SPAN 2

PLAN - SPAN 3

Notes:
* Order bars full Length, cut in field and use as top & bott. steel. (See cutting diagram)

Bars indicated thus 30 x 8 - #5 b6 indicates 30 Lines of Bars with 8 - Lengths per line.
Min. Bar Splice - 24 Bar Dia.

Work this sht. with sht. 3

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

DECK DETAILS

Designed By: HM	Drawn By: EK	Quantities By: EM
Checked By: WF	Checked By: LP	Checked By: LP

FOR INFORMATION ONLY

MODEL: Default
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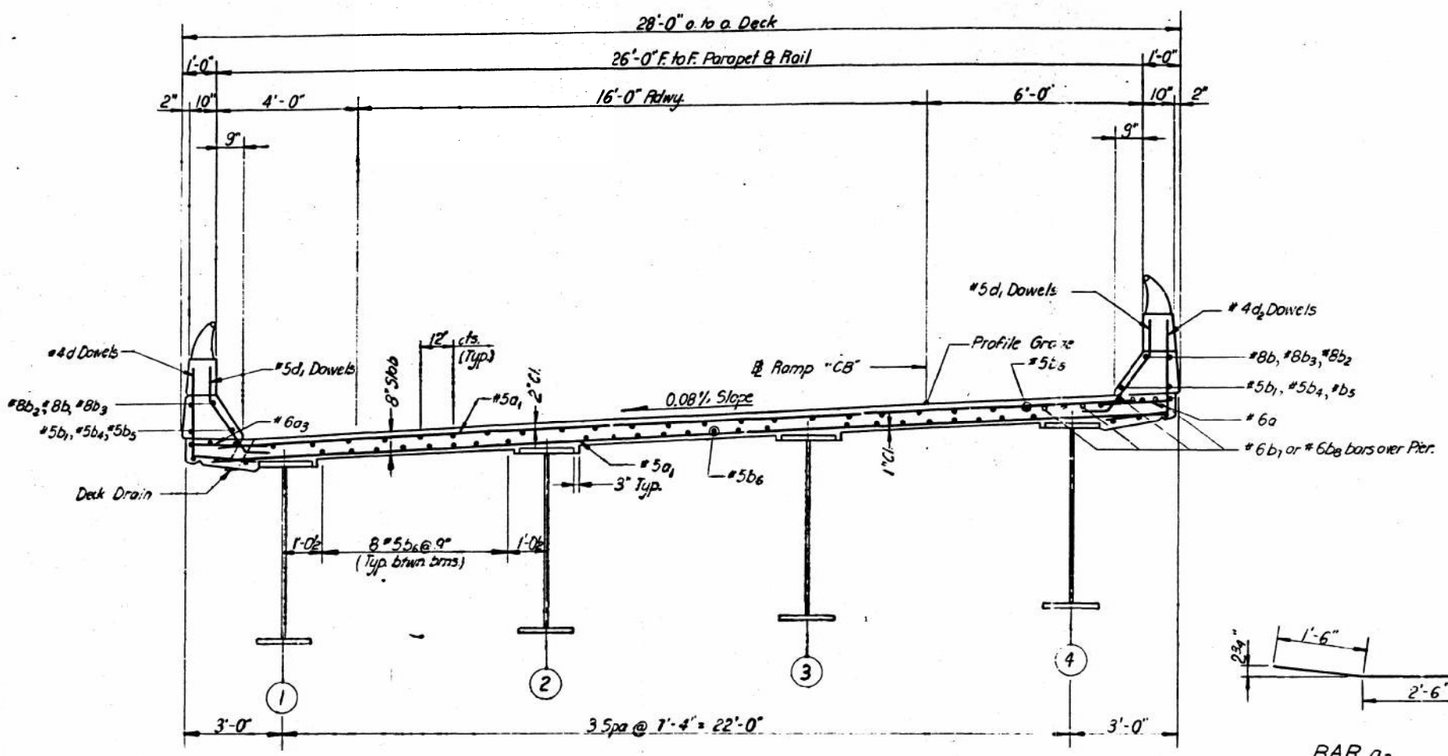
		CHECKED - JS	REVISED -
	PLOT SCALE =	DRAWN - RBT	REVISED -
	PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

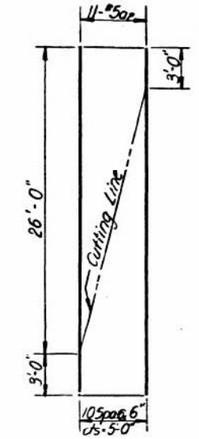
EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 14 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	63
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

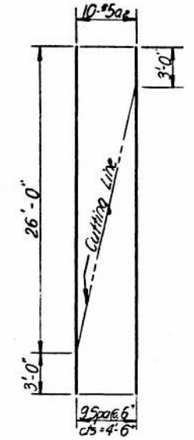
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB, X1-2HB-2	WILLIAMSON	95	43
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



CROSS SECTION - SPAN 2&3



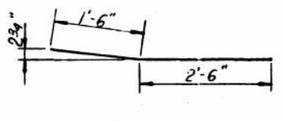
CUTTING DIAGRAM "A"



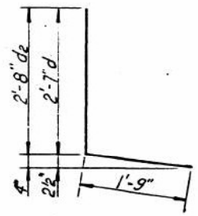
CUTTING DIAGRAM "B"

Bar	No.	Size	Length	Shape
a	216	#6	4'-0"	
a1	864	#5	26'-0"	
a2	21	#5	29'-5"	
a3	216	#6	4'-0"	
b	8	#8	17'-2"	
b1	8	#5	17'-2"	
b2	12	#8	35'-0"	
b3	8	#8	4'-5"	
b4	16	#5	2'-4"	
b5	12	#5	27'-2"	
b6	480	#5	28'-3"	
b7	29	#6	12'-0"	
b8	29	#6	3'-0"	
d	216	#4	4'-4"	
d1	432	#5	3'-5"	
d2	216	#4	4'-5"	
Reinforcement Bars			Lbs.	48890
Class X Concrete			Cu. Yds.	190.6
* Structural Steel			Lbs.	30462.0

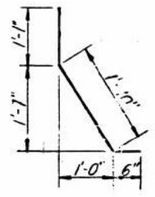
* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel.
Est. Weight = 4,740 Lbs.



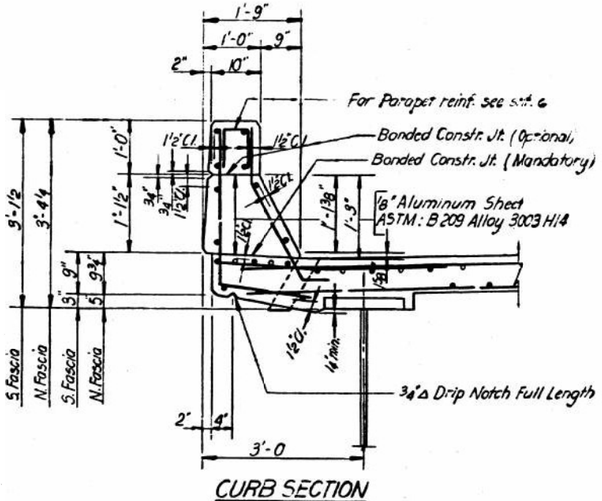
BAR a_3



BARS d & d_2

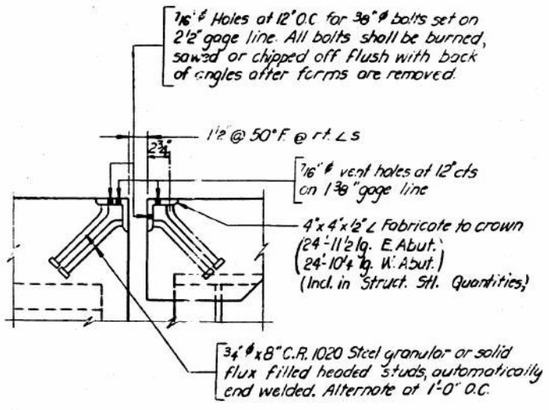


BAR d_1



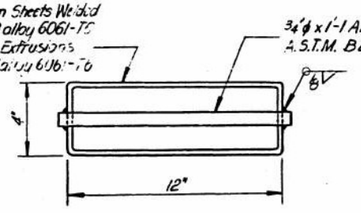
CURB SECTION

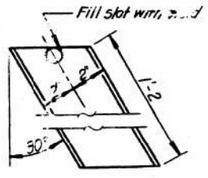
Cost of Aluminum Sheets & Drains shall be incidental to class x concrete.



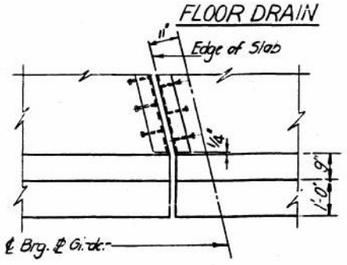
SECTION A-A
THRU DECK JOINT AT ABUTMENT

⅜" Aluminum Sheets Welded A.S.T.M. B 209 alloy 6061-T6 or Aluminum Extrusions A.S.T.M. B 221 alloy 6061-T6





The Lengths & Quantities of Reinforcement and Class x Concrete in Parapets are not included in above Quantities.
Work this sheet with sheet 2.

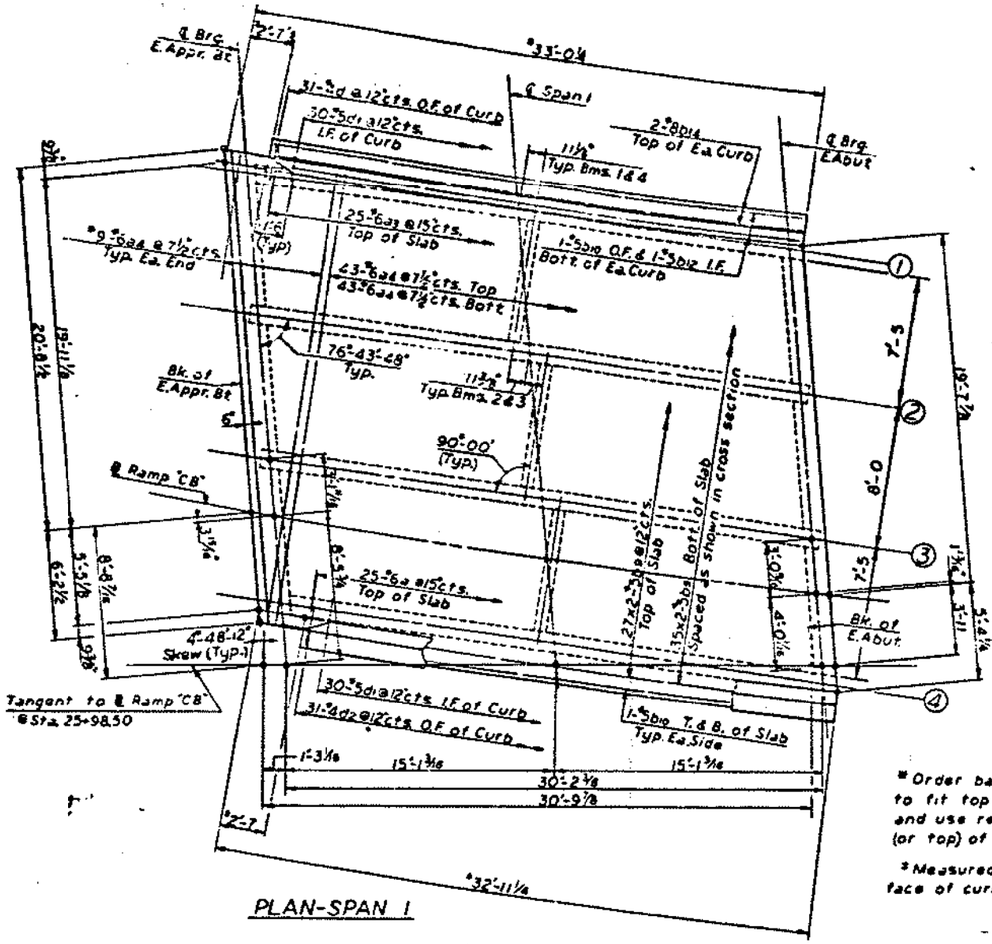


CORNER DETAIL

FOR INFORMATION ONLY

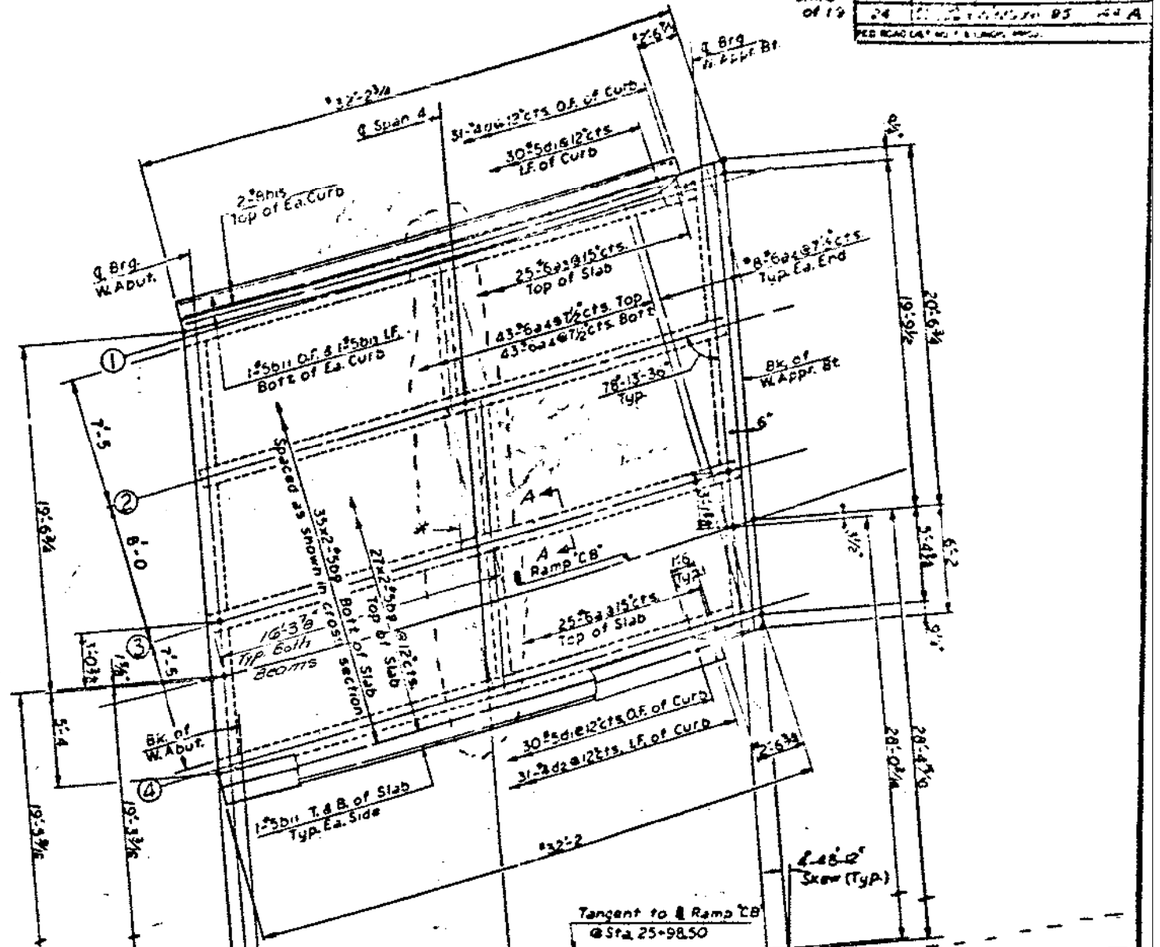
ILLINOIS DIVISION OF HIGHWAYS
F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY
DECK DETAILS

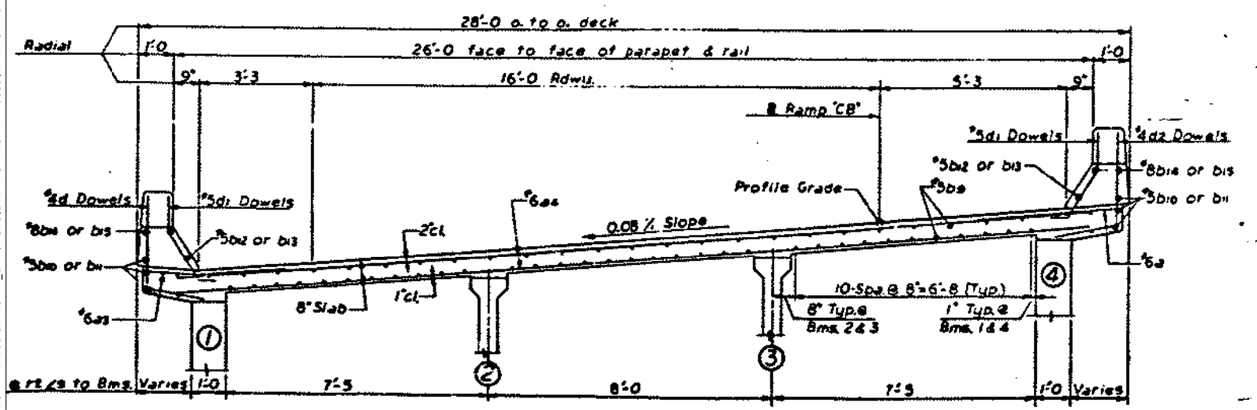
Designed By: HM	Drawn By: EK	Quantities By: EM
Checked By: WP	Checked By: LP	Checked By: LP



* Order bars full length, cut to fit top (or bottom) of slab and use remainder in bottom (or top) of slab.

* Measured along inside face of curb.





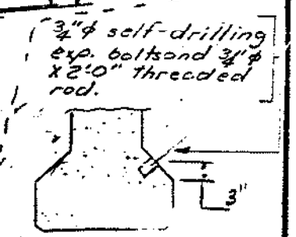
NOTES

Bars indicated thus, 35-2-⁵/₈ etc., indicates 35 lines of bars with 2 lengths per line.

Min. bar lap = 24 dia.

Work this sht. with sht. 3.

Note: Bend diaphragm reinf. parallel to skew (Typ.)



* Grout insert hole in bott. flange of bm.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24

PROJECT _____ SECTION X1-2HB-2

WILLIAMSON COUNTY

DECK DETAILS

Designed By: N.M. | Drawn By: J.T. | Quantities By: F.M.

Checked By: W.F. | Checked By: B.A. | Submitted By: L.P.

Rev. Insert locations and diaphragms. 4-12-73 D.D.

CIVIL DESIGN, INC. WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -	
	CHECKED - JS	REVISED -	
PLOT SCALE =	DRAWN - RBT	REVISED -	
PLOT DATE =	CHECKED - KAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 16 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	65
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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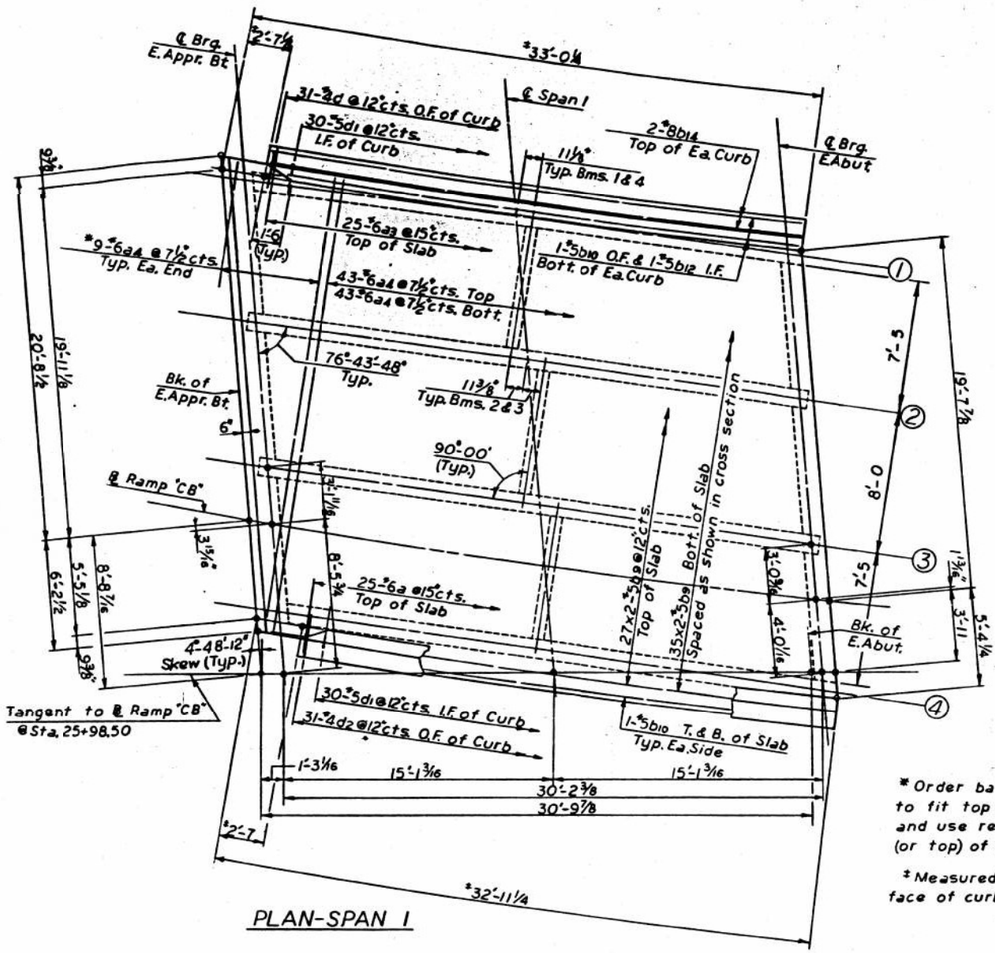
5/1/2023 3:09:05 PM

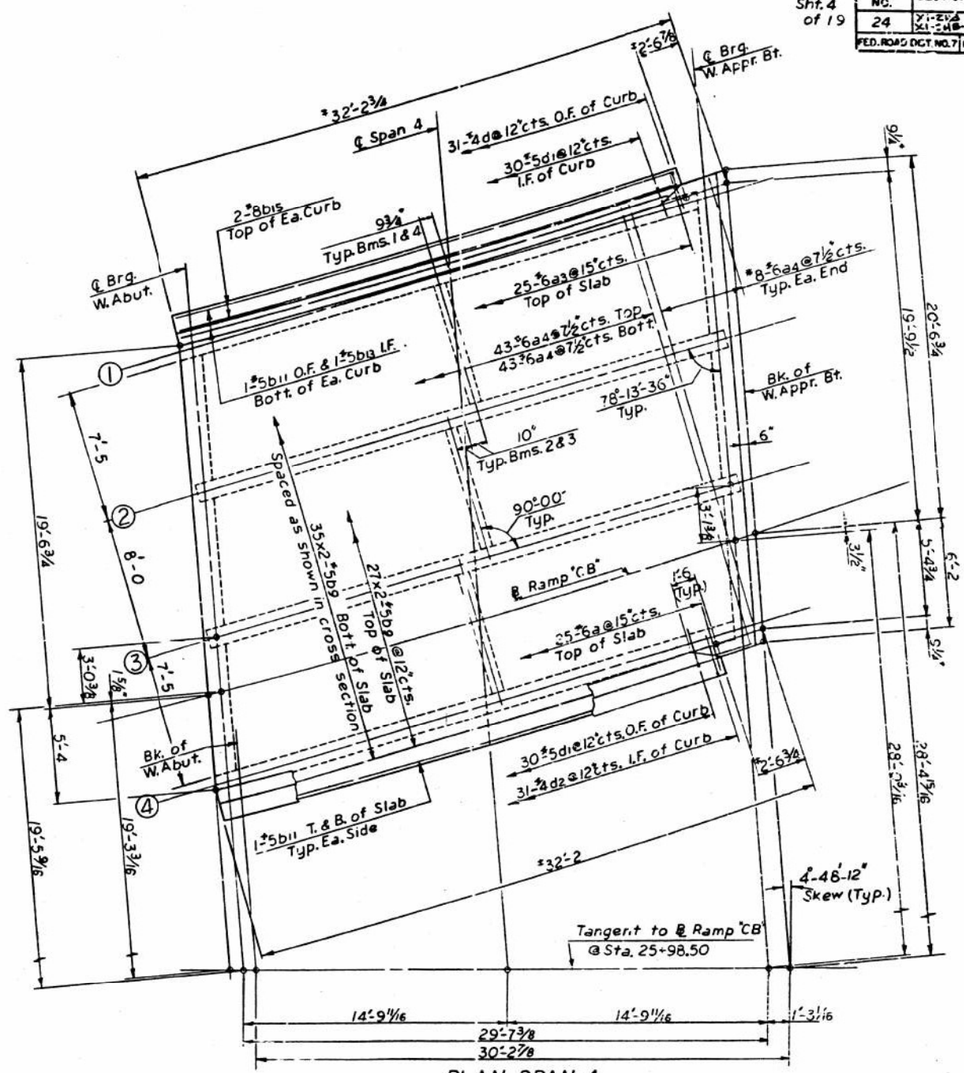
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2V-6 X1-2HB-2 W	WMSON	95	44
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



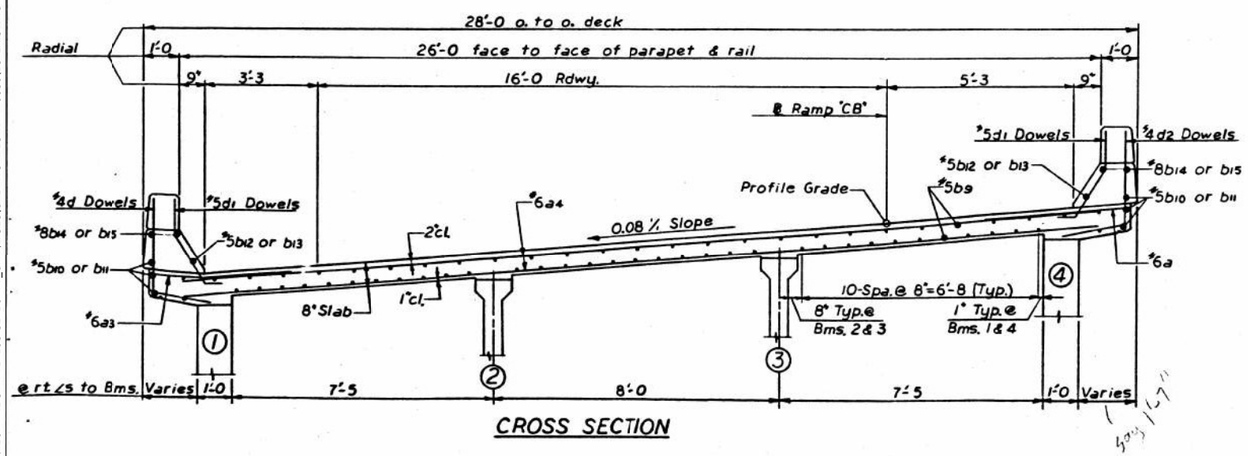
PLAN-SPAN 1

* Order bars full length, cut to fit top (or bottom) of slab and use remainder in bottom (or top) of slab.

‡ Measured along inside face of curb.



PLAN-SPAN 4



CROSS SECTION

NOTES

Bars indicated thus, 35x2-*5 etc., indicates 35 lines of bars with 2 lengths per line.

Min. bar lap = 2‡ dia.

Work this sht. with sht. 5.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24

PROJECT _____ SECTION X1-2HB-2

WILLIAMSON COUNTY

DECK DETAILS

Designed By: H.M. | Drawn By: J.T. | Quantities By: E.J.

Checked By: W.F. | Checked By: B.A. | Checked By: L.P.

CIVIL DESIGN, INC. WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 17 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	66
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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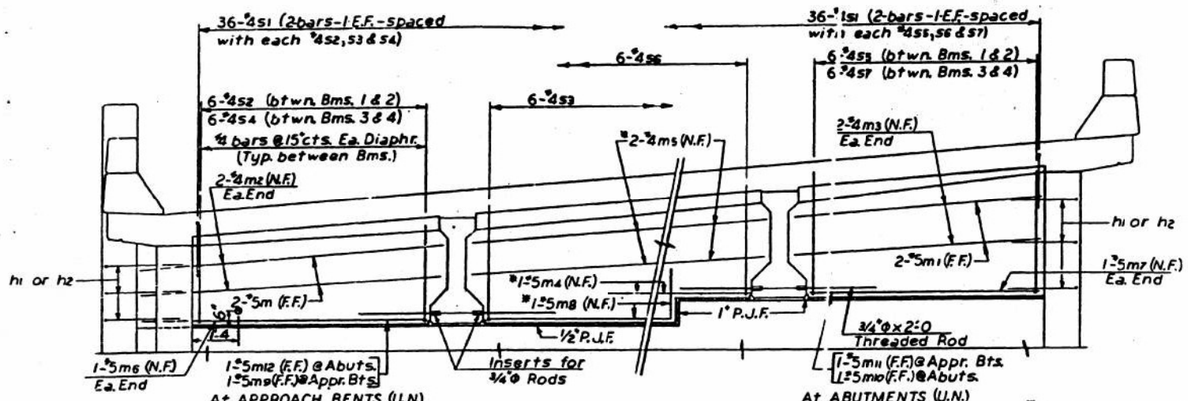
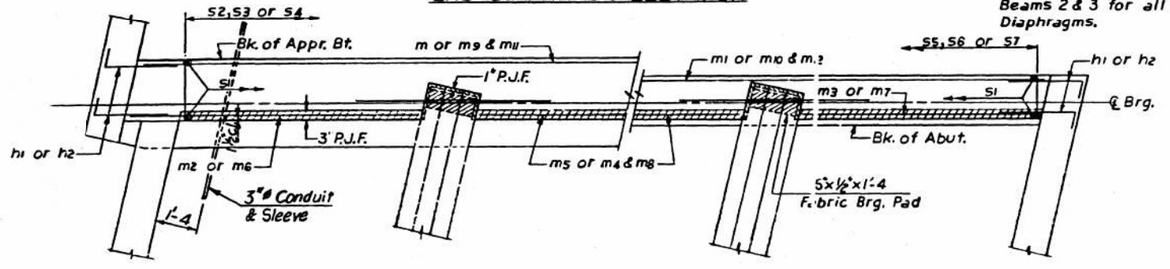
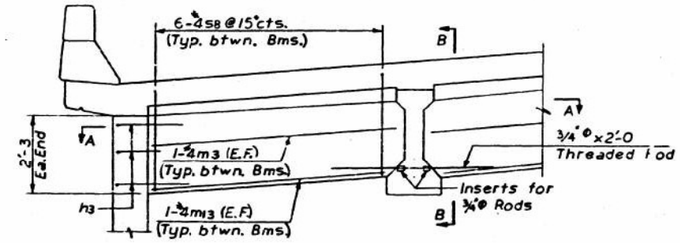


END DIAPHRAGM ELEVATION

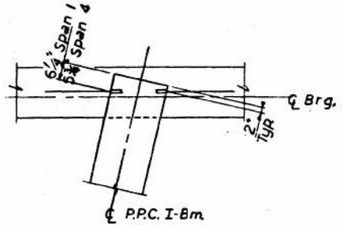


END DIAPHRAGM PLAN

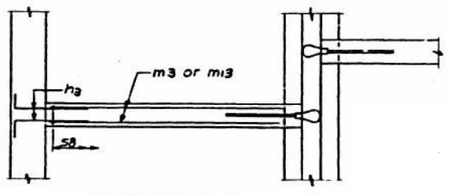
* Bars denoted by an asterisk are typical between Beams 2 & 3 for all End Diaphragms.



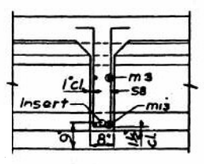
INTERIOR DIAPHRAGM ELEVATION



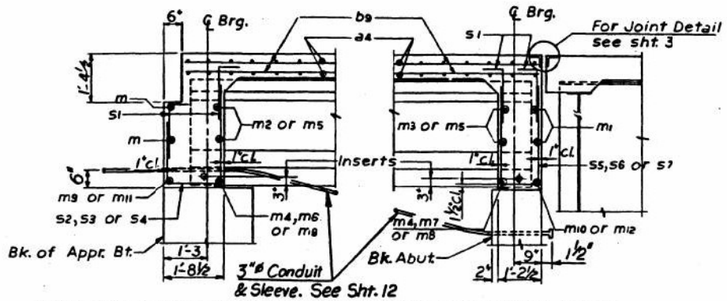
INSERT LOCATION



SECTION A-A

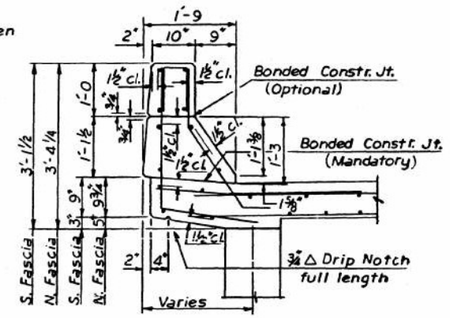


SECTION B-B

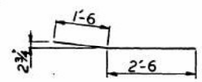


TYP. SEC. THRU APPR. BT.
All dimensions @ Rt. Ls

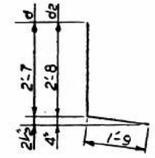
TYP. SEC. THRU ABUT.
All dimensions @ Rt. Ls



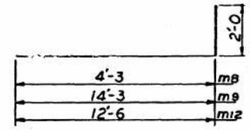
CURB SECTION
At Spans 1 & 4



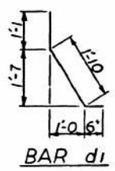
BAR a3



BARS d & d2



BARS m8, m9 & m12



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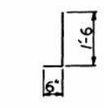
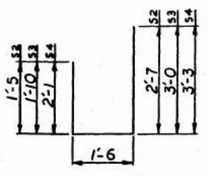
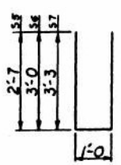


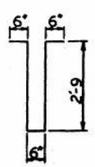
BAR s1



BARS s2, s3 & s4



BARS s5, s6 & s7



BAR s8

Sht. 5 of 19

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2 RB X1-2HB-2	WILLIAMSON	95	45
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	50	#6	4'-0	
a3	50	#6	4'-0	
a4	206	#6	26'-0	
b9	248	#5	17'-0	
b10	6	#5	30'-0	
b11	6	#5	29'-3	
b12	2	#5	28'-6	
b13	2	#5	27'-9	
b14	4	#8	30'-0	
b15	4	#8	29'-3	
d	62	#4	4'-4	L
d1	120	#5	3'-5	L
d2	62	#4	4'-5	L
m	4	#5	26'-4	
m1	4	#5	23'-0	
m2	8	#4	8'-8	
m3	20	#4	6'-11	
m4	4	#5	4'-0	
m5	8	#4	7'-4	
m6	4	#5	8'-2	
m7	4	#5	6'-6	
m8	4	#5	6'-3	L
m9	2	#5	16'-3	L
m10	2	#5	12'-3	
m11	2	#5	14'-0	
m12	2	#5	14'-6	L
m13	12	#4	6'-3	
s1	144	#4	2'-0	[
s2	12	#4	5'-6	
s3	12	#4	6'-4	
s4	12	#4	6'-10	
s5	12	#4	6'-2	
s6	12	#4	7'-0	
s7	12	#4	7'-6	
s8	36	#4	7'-0	U
Reinforcement Bars		Lbs.	16,290	
Class X Concrete		Cu. Yds.	73.0	

Parapet Reinforcement and Class X Concrete are billed on sht. 6.
Bars h1, h2 & h3 are billed on shts. 12 & 14.
Work this sht. with sht. 4.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

DECK DETAILS

Designed By: M.M. Drawn By: J.T. Quantities By: E.M.
Checked By: M.D.F. Checked By: E.A. Checked By: L.P.

MODEL: Default
FILE NAME: P:\Effingham\4267 - IDOT PTB 193-32 D9 VV_CMTW0186\CAD WO #18 RT - 0059\19 EXISTING DRAWINGS\Sht26.dgn
5/1/2023 3:11:48 PM

CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

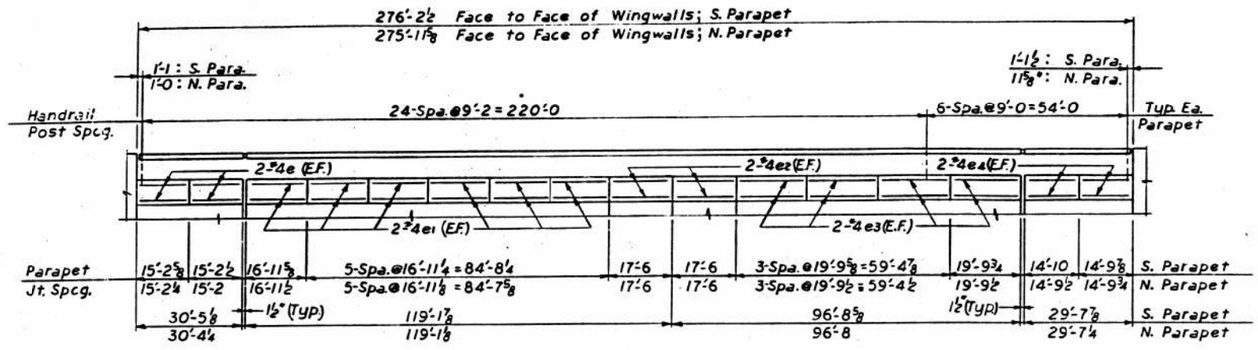
USER NAME =	DESIGNED - RBT	REVISED -	
	CHECKED - JS	REVISED -	
PLOT SCALE =	DRAWN - RBT	REVISED -	
PLOT DATE =	CHECKED - KAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

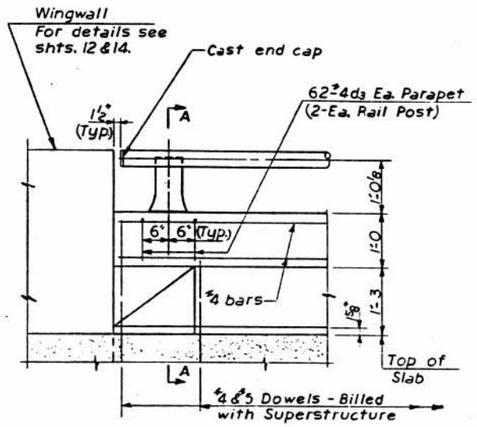
EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 18 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	67
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB X1-2HB-2	WILLIAMSON	85	46
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



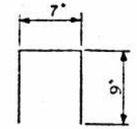
PARAPET ELEVATION
All dimensions measured along inside face of curb



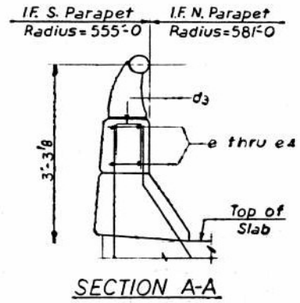
ELEVATION AT APPR. BENT

PARAPETS & RAILS
BILL OF MATERIAL

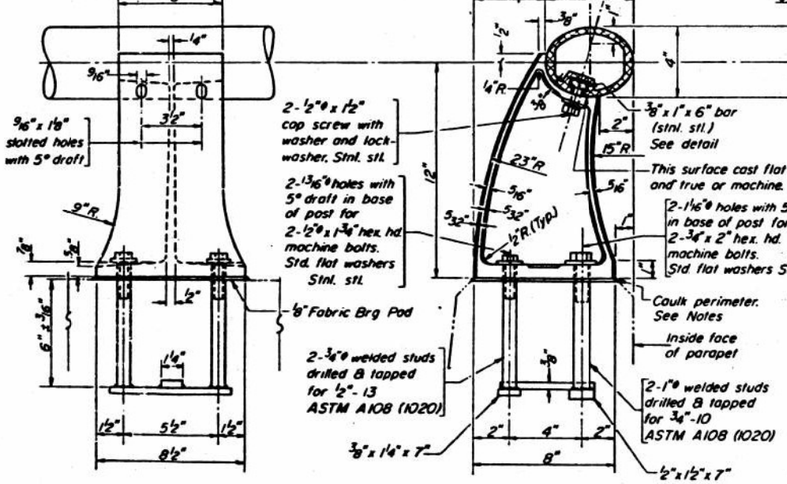
Bar	No.	Size	Length	Shape
e	16	#4	14'-10	
e1	48	#4	16'-8	
e2	16	#4	17'-2	
e3	32	#4	19'-6	
e4	16	#4	14'-6	
d3	124	#4	2'-1	
Class X Concrete			Cu. Yds.	17.7
Reinforcement Bars			Lbs.	1620
Aluminum Railing			Lin. Ft.	552



BAR d3



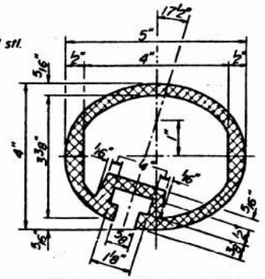
SECTION A-A



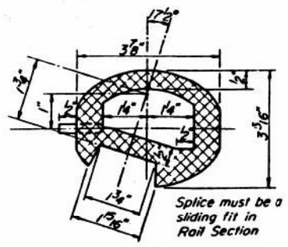
RAIL POST DETAILS

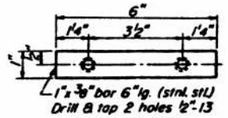
CAST END CAP
DRIVE FIT TYPE
4 Required

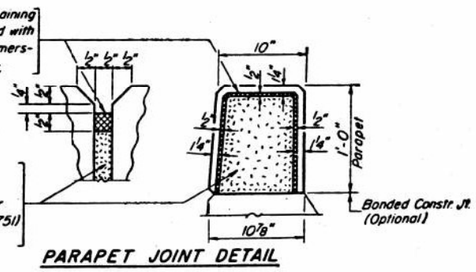
RAIL SPLICE



SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE

CLAMP BAR



PARAPET JOINT DETAIL

FOR INFORMATION ONLY

NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1 - ⅛" and 2 - 1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

Aluminum Alloy rail shall conform to A.S.T.M. B221 Alloy 6061-T6 or 6351-T5 with min. yield 35 ksi min. Tensile 38 ksi and elongation of 10% in two inches.

ILLINOIS DIVISION OF HIGHWAYS			
F.A.I. ROUTE 24			
PROJECT _____ SECTION X1-2HB-2			
WILLIAMSON COUNTY			
HANDRAIL DETAILS			
Designed By:	Drawn By: JT	Quantities By: J.T.	
Checked By:	Checked By: B.A.	Checked By: B.A.	

CIVIL DESIGN, INC. WBE / DBE EFFINGHAM, IL LICENSE #184.003222	USER NAME =	DESIGNED - RBT	REVISED -
		CHECKED - JS	REVISED -
	PLOT SCALE =	DRAWN - RBT	REVISED -
	PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 19 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	68
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

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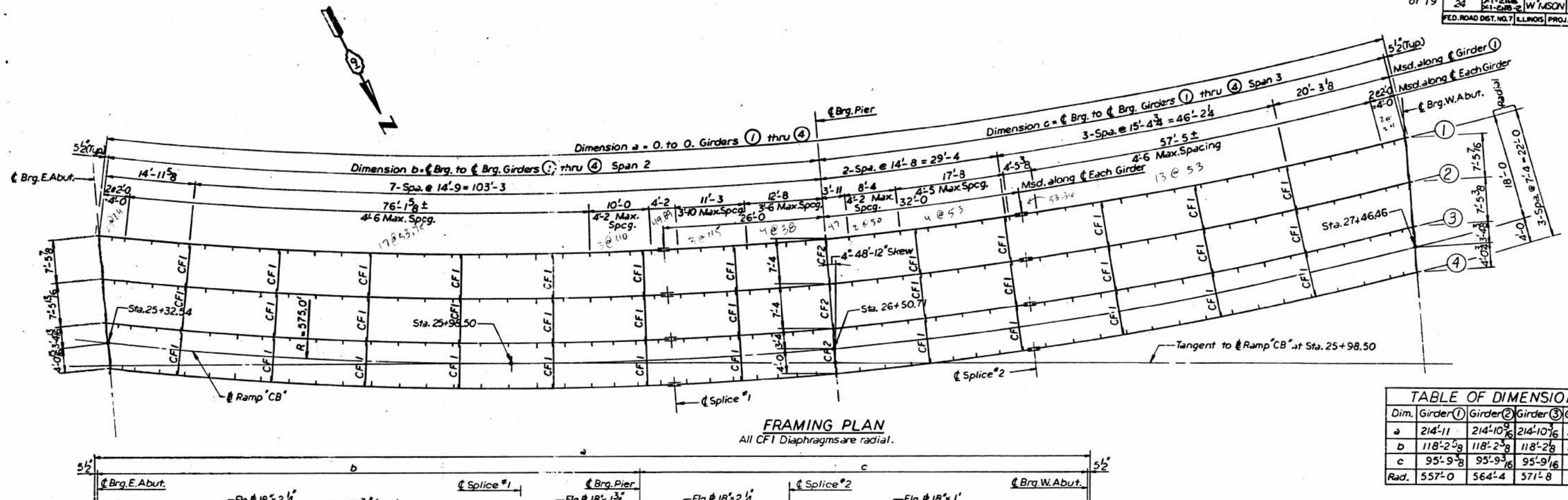
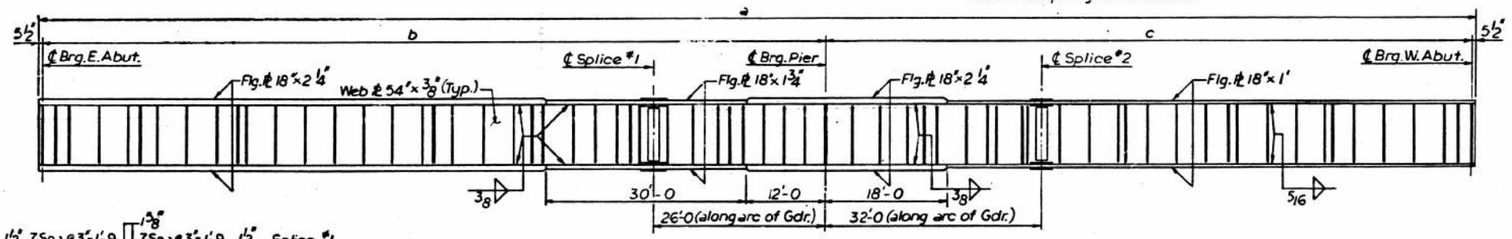
Sht. 7 of 19	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	24	X1-2HB & X1-2HB-2	WILLIAMSON	95	47
	FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		

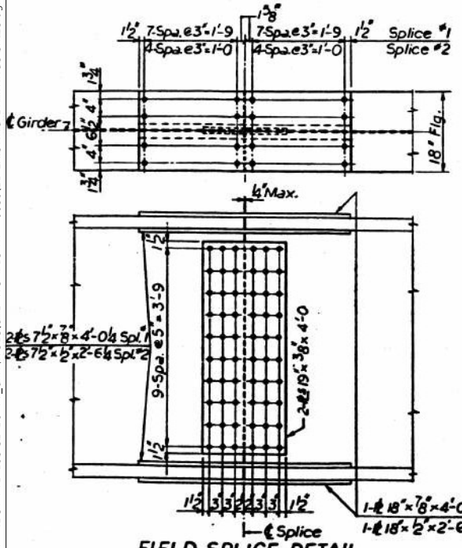


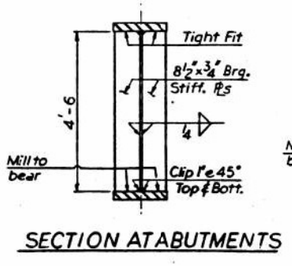
FRAMING PLAN

All CF1 Diaphragms are radial.

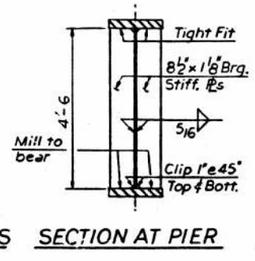


GIRDER ELEVATION

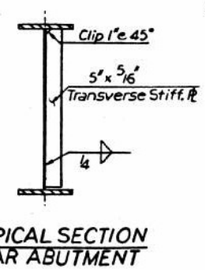




SECTION AT ABUTMENTS



SECTION AT PIER



TYPICAL SECTION NEAR ABUTMENT

NOTE:
Transverse Stiffeners between splices shall be welded to bottom flange with 1/4" fillet weld and shall have 5/8" undercut at top. Remainder of Stiffeners shall be welded to top flange with 1/4" fillet weld and shall have 5/8" undercut at bott.
Transverse Stiff.'s @ Girders ① & ④ shall be placed on inside face of web.
For Dim. a, b & c see 'Table of Dimensions' and for Stiffener spacing & location see Framing Plan.

FLANGE SHOP SPLICES

TABLE OF DIMENSIONS				
Dim.	Girder ①	Girder ②	Girder ③	Girder ④
a	214'-11	214'-10 9/16	214'-10 1/16	214'-9 3/4
b	118'-2 5/8	118'-2 3/8	118'-2 1/8	118'-1 7/8
c	95'-9 3/8	95'-9 1/16	95'-9 1/16	95'-8 7/8
Rad.	557'-0	564'-4	571'-8	579'-0

INTERIOR GIRDER MOMENT TABLE				
		0.4 Span 2	Pier	0.4 Span 3
I	(in.⁴)	68,990	68,990	32,150
℄	(K/i)	1.42	1.42	1.42
M℄	(i K)	1,901	- 2,369	673
M¼	(i K)	973	- 757	632
Imp.	(i K)	201	- 163	143
M TOTAL	(i K)	3,075	- 3,289	1,448

INTERIOR GIRDER REACTION TABLE				
		E. Abut.	Pier	W. Abut.
R℄	(k)	78.4	207.3	46.7
R¼	(k)	56.4	95.8	51.3
Imp.	(k)	11.6	14.2	11.6
R TOTAL	(k)	146.4	317.3	109.6

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

STEEL GIRDER AND FRAMING DETAILS

Designed By: K.M.	Drawn By: E.M.	Quantities By: K.R.S.
Checked By: L.P.	Checked By: W.J.E.	Checked By: W.J.E.

MODEL: Default
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CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

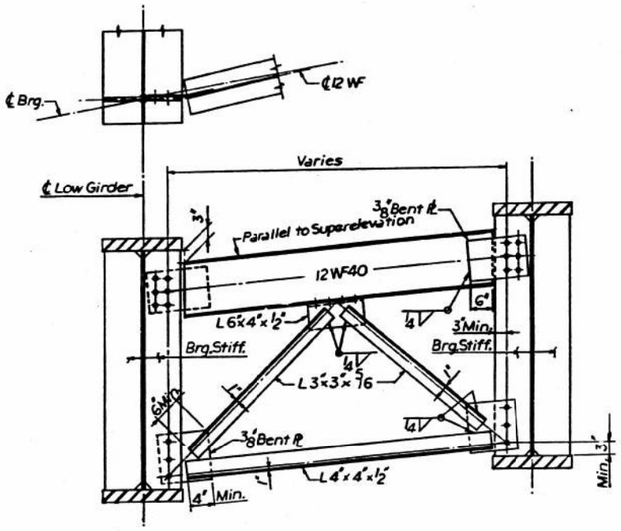
USER NAME =	DESIGNED - RBT	REVISED -
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

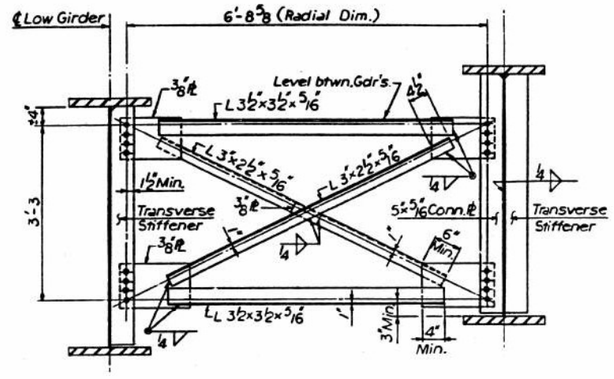
EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 20 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	69
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

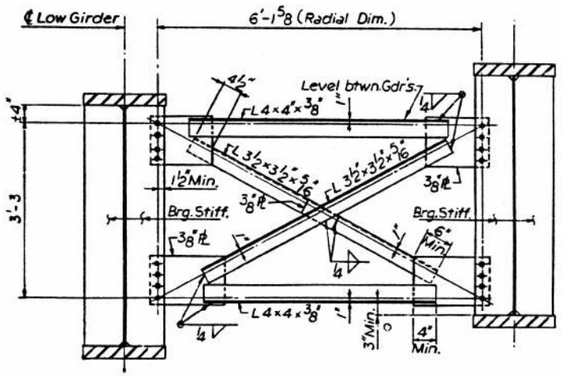
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB-2 X4-2HB-2	WILLIAMSON	95	48
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



END CROSS FRAME



TYPICAL INTERIOR CROSS FRAME CF1

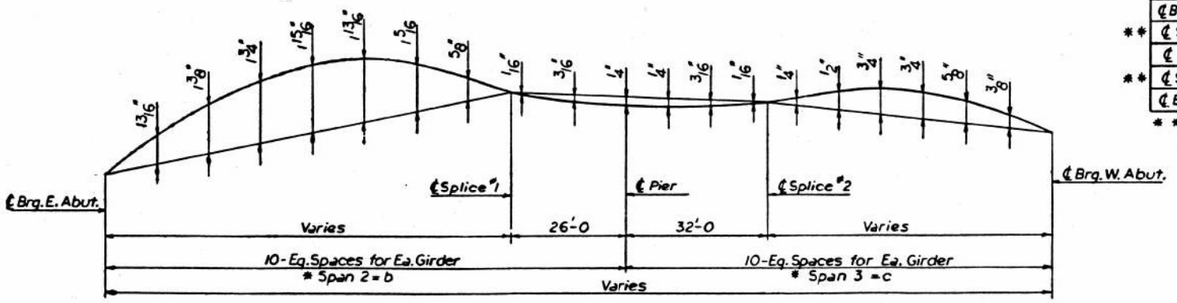


CROSS FRAME CF2 AT PIER

ELEVATION TOP OF STEEL GIRDER WEBS

Girder No.	1	2	3	4
℄ Brg. E. Abut.	659.657	660.233	660.828	661.424
** ℄ Splice #1	660.045	660.654	661.240	661.828
℄ Pier	660.022	660.588	661.174	661.761
** ℄ Splice #2	659.992	660.602	661.188	661.776
℄ Brg. W. Abut.	659.851	660.424	661.018	661.612

** Adjusted for camber (Vertical curve & Dead Load Deflection due to weight of concrete & Steel.)



CAMBER DIAGRAM

* Note:
For Dim. b & c see Table of Dimensions sht.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

STEEL GIRDER AND FRAMING DETAILS

Designed By:	Drawn By: E.M.	Quantities By: K.R.S.
Checked By:	Checked By: W.J.F.	Checked By: W.J.F.

CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 21 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	70
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

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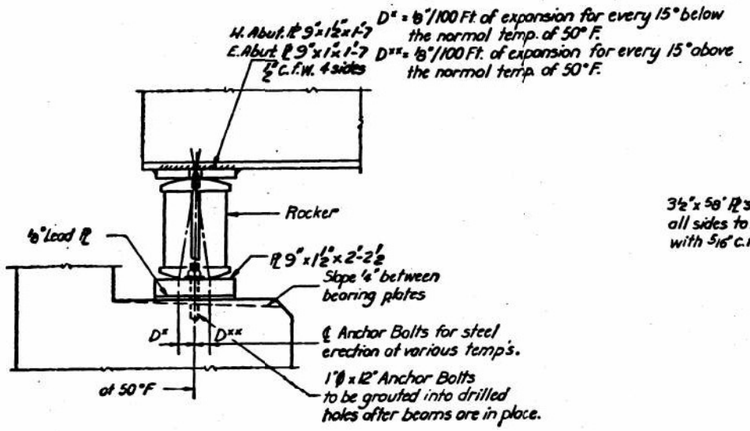
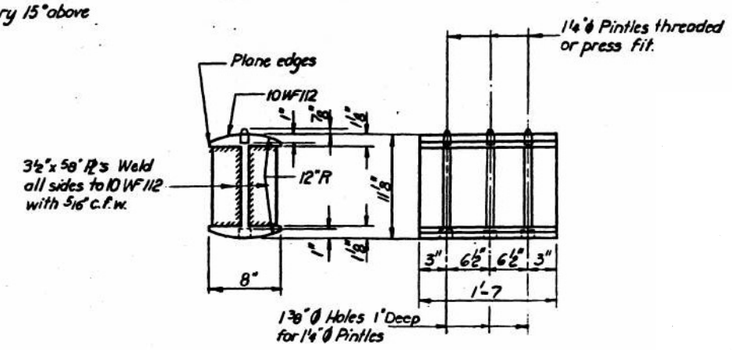
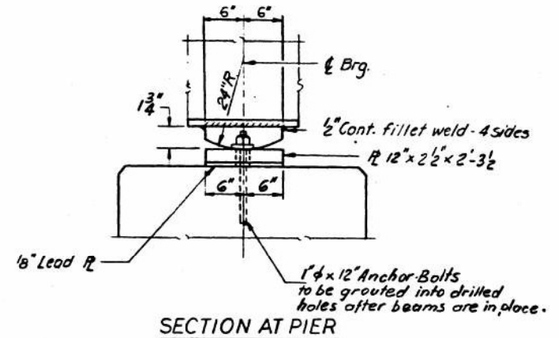


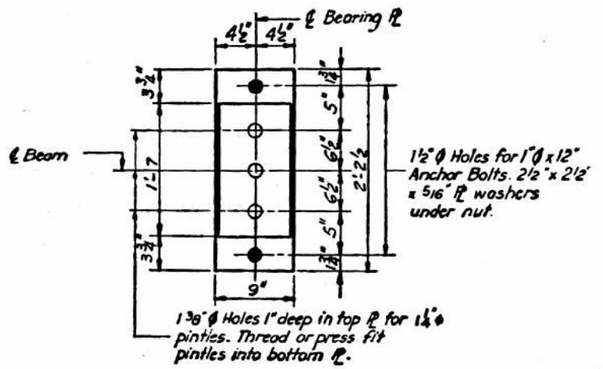
SECTION AT ABUTMENT



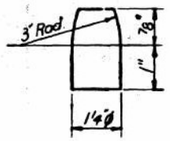
DETAIL OF ROCKER AT ABUTMENT



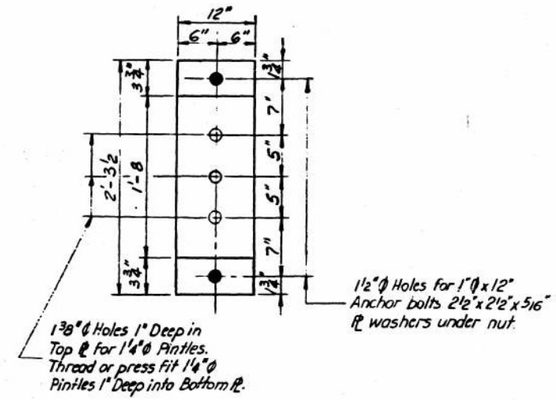
SECTION AT PIER



PLAN



DETAIL OF PINTLE



PLAN

FOR INFORMATION ONLY

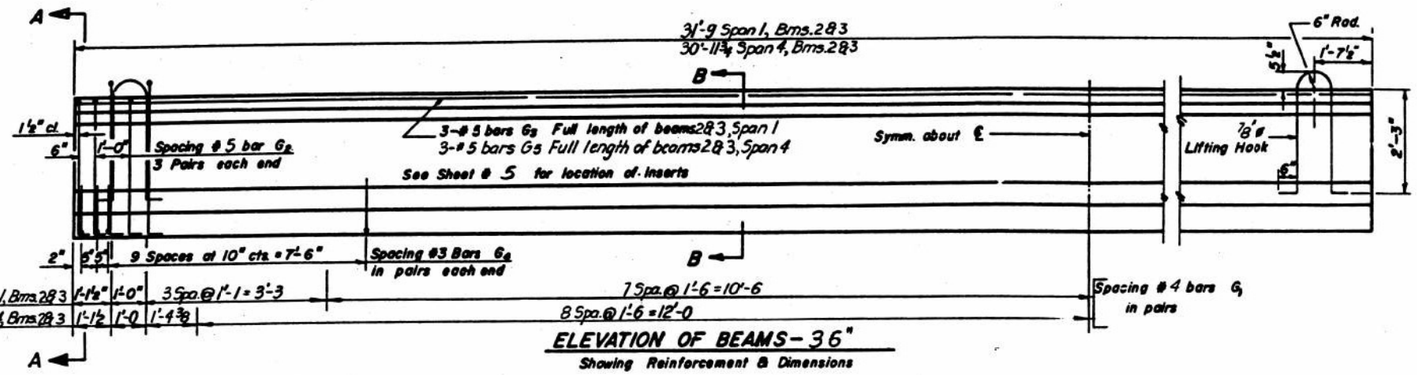
ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

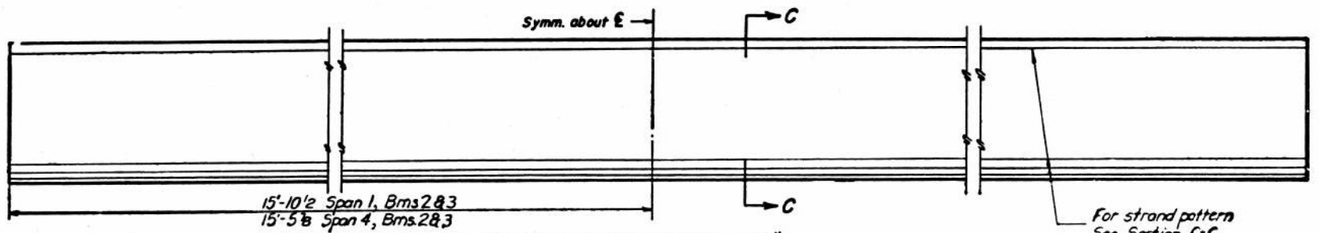
STEEL GIRDER AND FRAMING DETAILS

Designed By:	Drawn By: E.M.	Quantities By: K.R.S.
Checked By:	Checked By: M.J.F.	Checked By: M.J.F.

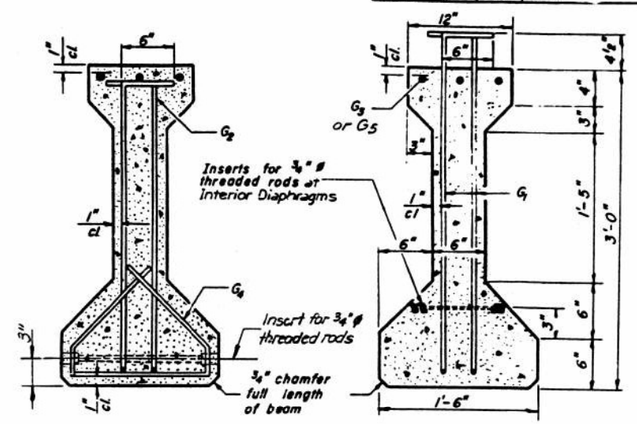
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2WB X1-2HB-2	WILLIAMSON	95	50
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



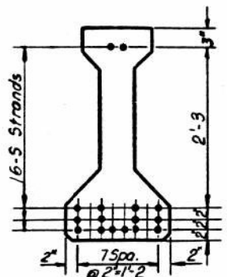
ELEVATION OF BEAMS – 36"
Showing Reinforcement & Dimensions



ELEVATION OF BEAMS – 36"
Showing Prestressing Steel



SECTION A-A **SECTION B-B**

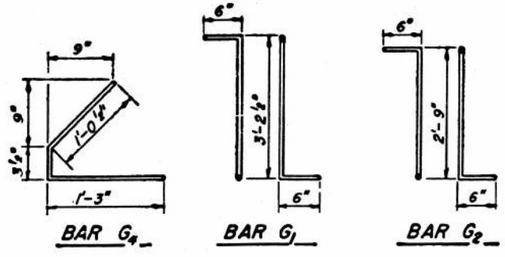


SECTION C-C

* BAR LIST

Bar	Span 1 Bms. 2&3 No.	Span 1 Bms. 2&3 Lgth.	Span 4 Bms. 2&3 No.	Span 4 Bms. 2&3 Lgth.	Size	Shape
G1	46	4'-2½	42	4'-2½	#4	⅂L
G2	12	3'-9	12	3'-9	#5	⅂L
G3	3	31'-5	–	–	#5	—
G4	48	2'-7	48	2'-7	#3	⊏
G5	–	–	3	30'-8	#5	—

* Quantities shown for one beam only.



NOTES

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 36 In."

Ends of beams to be encased with cast in place concrete shall not be coated with asphalt paint.

Prestressing Steel shall have a nominal diameter of 7/16".

Inserts for ⅜" ø threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Steel for lifting hooks shall be ASTM A-306 Grade 70-80

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 36"	Lin. Ft.	126

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY
PRESTRESSED CONCRETE GIRDER DETAILS
Designed By: L.P. | Drawn By: E.K. | Quantities By: H.M.
Checked By: H.M. | Checked By: B.A. | Checked By: B.A.

MODEL: Default
FILE NAME: P:\Effingham\4267 - IDOT PTB 193-32 D9 VV_CMT\WO18\CAD WO #18 RT - 0059\24 EXISTING DRAWINGS-Sht31.dgn
5/1/2023 3:19:28 PM

CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

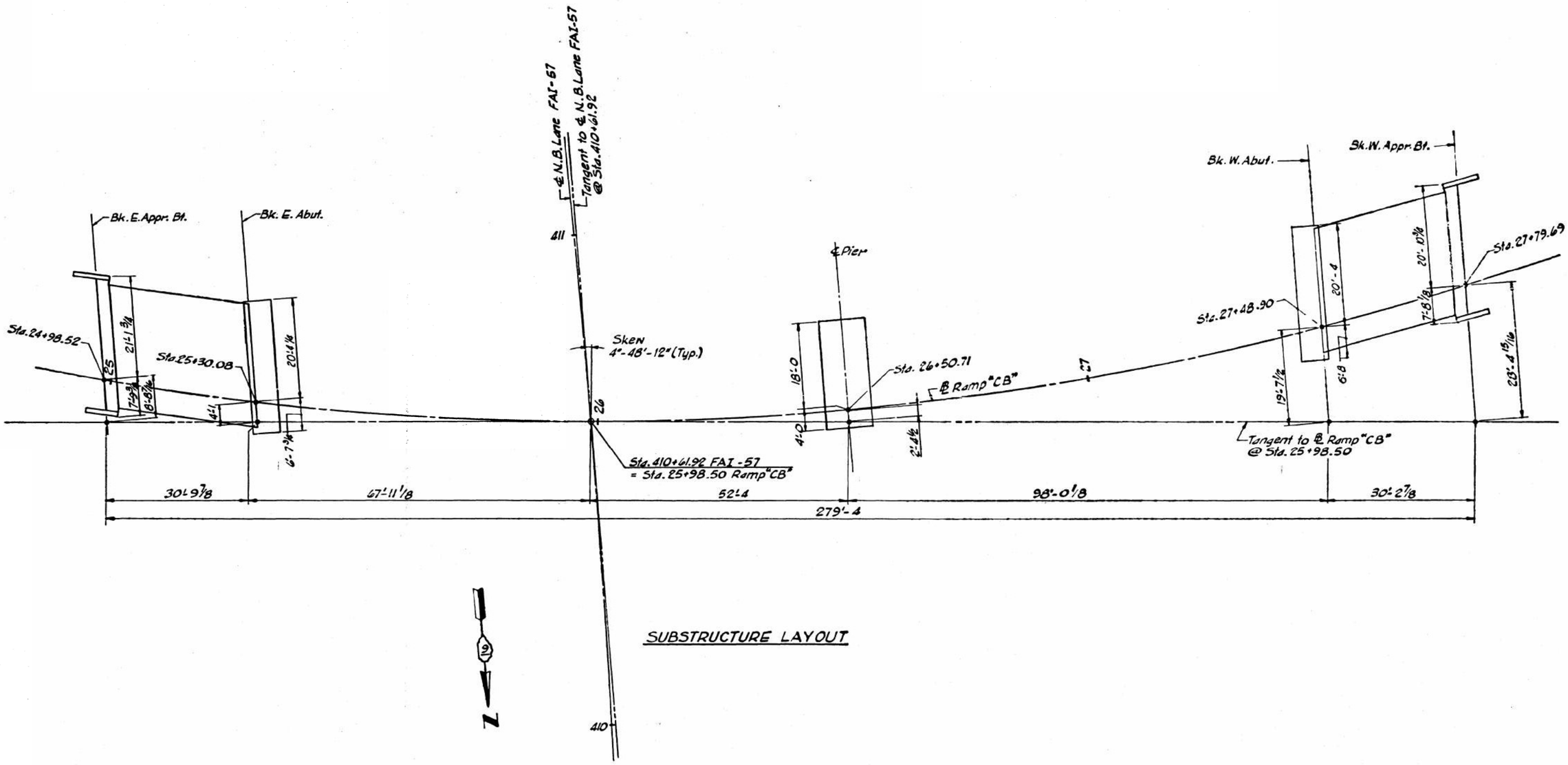
USER NAME =	DESIGNED – RBT	REVISED –
	CHECKED – JS	REVISED –
PLOT SCALE =	DRAWN – RBT	REVISED –
PLOT DATE =	CHECKED – KAS	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 23 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	72
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB & X1-2HB-2	WILLIAMSON	93	51
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



SUBSTRUCTURE LAYOUT

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F. A. I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

SUBSTRUCTURE LAYOUT

Designed By:	Drawn By: J.T.	Quantities By:
Checked By:	Checked By: Z.P.	Checked By:

MODEL: Default
FILE NAME: P:\Effingham\4267 - IDOT PTB 193-32 D9 VV_CMT\WO18\CAD WO #18 RT - 0059\25 EXISTING DRAWINGS-Sht32.dgn

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CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -	
	CHECKED - JS	REVISED -	
PLOT SCALE =	DRAWN - RBT	REVISED -	
PLOT DATE =	CHECKED - KAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 24 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	73
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB X1-2HB-2	WILLIAMSON	95	52
FED. ROAD DST. NO. 7	ILLINOIS	PROJ.		

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	29	#5	25'-1	
h1	47	#5	4'-1	
h2	40	#5	4'-1	
h3	12	#5	3'-5	
h7	2	#4	13'-9	
h8	24	#4	6'-6	
h9	8	#5	8'-6	
h10	4	#5	4'-10	
h14	14	#5	30'-1	
h15	14	#5	32'-1	
h16	11	#5	25'-4	
h17	11	#5	29'-1	
h18	4	#5	6'-6	
h19	2	#6	26'-0	
h20	2	#6	32'-2	
h21	20	#4	7'-5	
n	64	#5	4'-7	
P6	3	#6	28'-6	
P7	4	#6	26'-7	
P8	3	#4	12'-11	
S	25	#4	10'-1	
t	37	#6	5'-6	
u	11	#4	3'-8	
v	52	#5	11'-7	
v1	26	#5	7'-6	
v2	24	#4	11'-1	
v3	54	#5	3'-0	
v6	12	#5	5'-6	
v7	4	#4	12'-3	
v8	3	#4	10'-9	
v9	30	#4	6'-6	
v10	5	#4	8'-5	
v15	20	#5	7'-1	
v16	6	#5	19'-8	
v17	6	#5	17'-11	
v18	21	#5	25'-0	
v19	25	#5	21'-5	
v20	3	#4	6'-3	
v21	26	#5	5'-0	
w	5	#5	26'-9	

Class X Concrete	Cu.Yds.	83.6
Reinforcement Bars	Lbs.	7590
Steel Piles (8BP36)	Lin.Ft.	543
Test Pile, Steel (8BP36)	Ea.	1

NOTES

Work this sheet with sheet 13.
Min. bar lap 24 Dia.
All edges shall have standard 3/4" chamfer except as noted.
Pour steps monolithically with cap.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

EAST ABUTMENT AND APPROACH BENT DETAILS

Designed By: Z. H.	Drawn By: Z. H.	Quantities By: K.R.S.
Checked By: B.A.	Checked By: K.R.S.	Checked By: Z. H.

VIEW F-F

SECTION B-B

WINGWALL REINFORCEMENT

SECTION D-D

SECTION G-G

SECTION E-E

BAR P6

BAR V21

SECTION A-A

PLAN

VIEW C-C

BAR h3

BAR V1

BAR S

BAR n

BAR h2

BAR h1

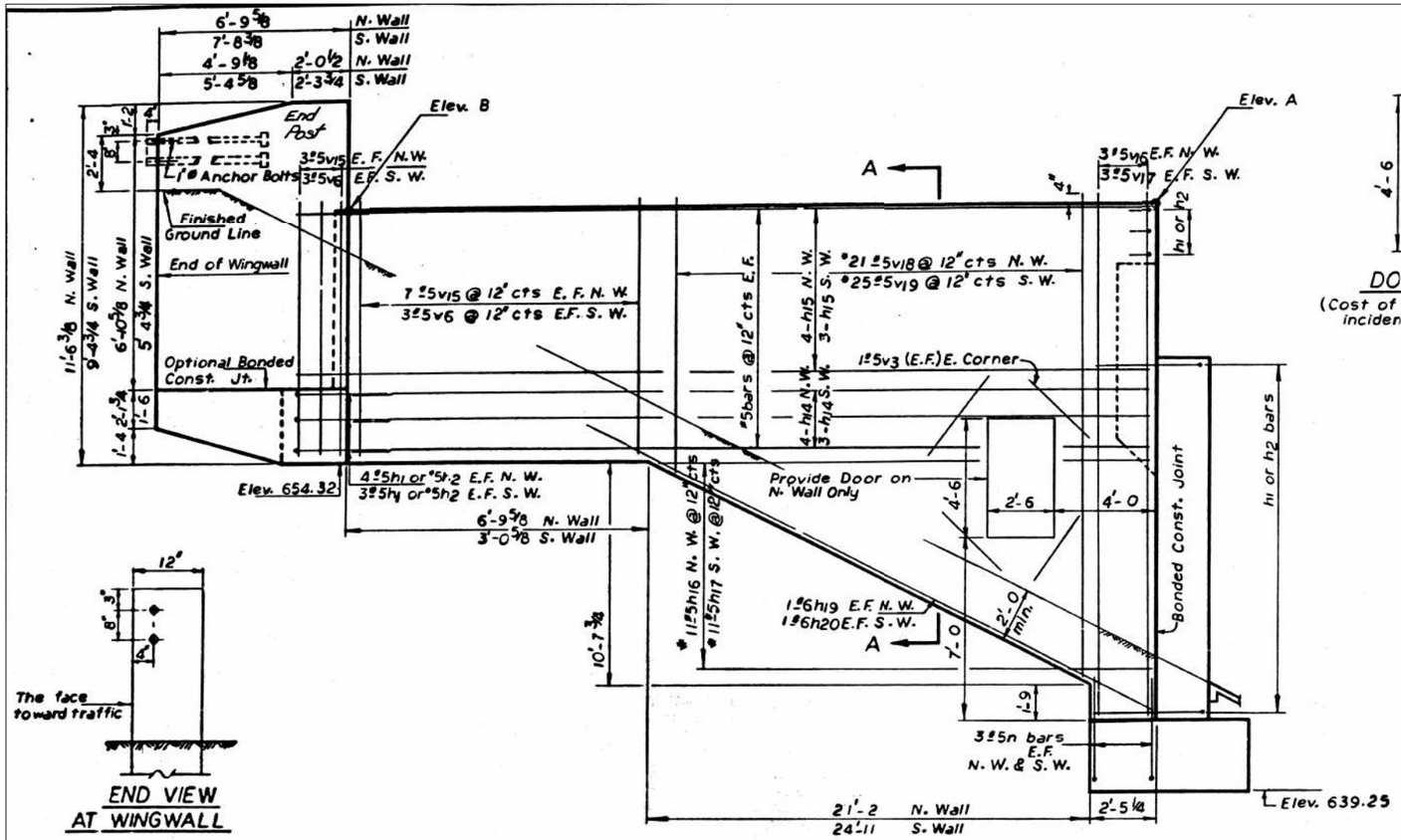
BARS V2, V7, V6, V10 & V20

BAR u

3" ϕ Conduit & Sleeve. Extend conduit through vaulted abut. to clear the wingwall and terminate at a point outside of shoulder 10 ft. from edge of pavement. Thread and cap each end. Place at all 4 corners of superstructure. Cost is incidental to bridge structure.

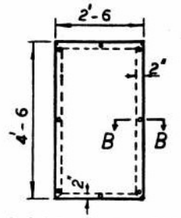
Welded wire fabric 6"x6" mesh #4 wire - Wt. 58#/100 sq. ft. The cost of Class X Concrete Encasement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB X1-2HB-2	WILLIAMSON	95	53
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



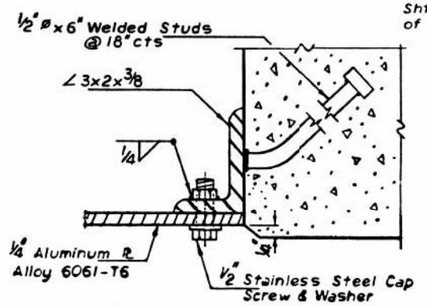
SIDE ELEVATION

END VIEW AT WINGWALL

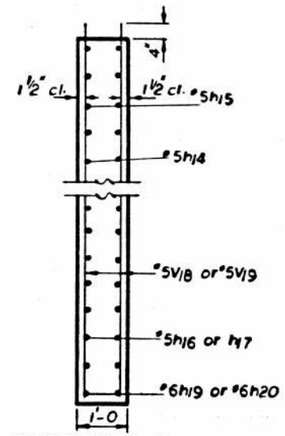


DOOR ELEVATION

(Cost of door and frame are incidental.)



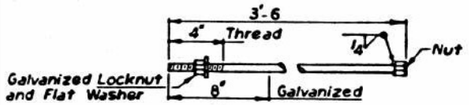
SECTION B-B



SECTION A-A

TOP OF CURTAIN WALL ELEVATIONS

Location	Elev. A	Elev. B
N. Wall	661.39	661.18
S. Wall	659.62	659.39



1" ø ANCHOR BOLT

Cost of bolts to be incidental to Bridge Structure.

APPR. BENT - PILE DATA

Type: Steel (8BP36)

Capacity: "drive" to refusal

Est. Length: 38'-0 Lg.

No. Required: 6

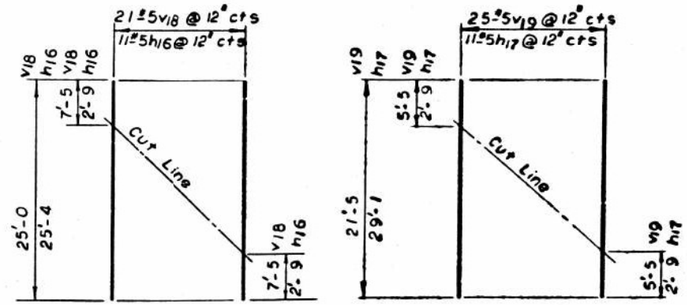
ABUT.-PILE DATA

Type: Steel (8BP36)

Capacity: drive to refusal

Est. Length: 21'-0 Lg.

No. Required: 15 (Plus one Test Pile)



FIELD CUTTING DIAGRAMS

* Order h16, h17, v18 & v19 bars full length. Cut to fit as shown and use remainder of bars in other face

Work this sheet with sheet 12

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24

PROJECT _____ SECTION X1-2HB-2

WILLIAMSON COUNTY

EAST CURTAIN WALL DETAILS

Designed By: Z.H. | Drawn By: Z.H. | Quantities By: K.R.S.

Checked By: B.A. | Checked By: K.R.S. | Checked By: Z.H

MODEL: Default
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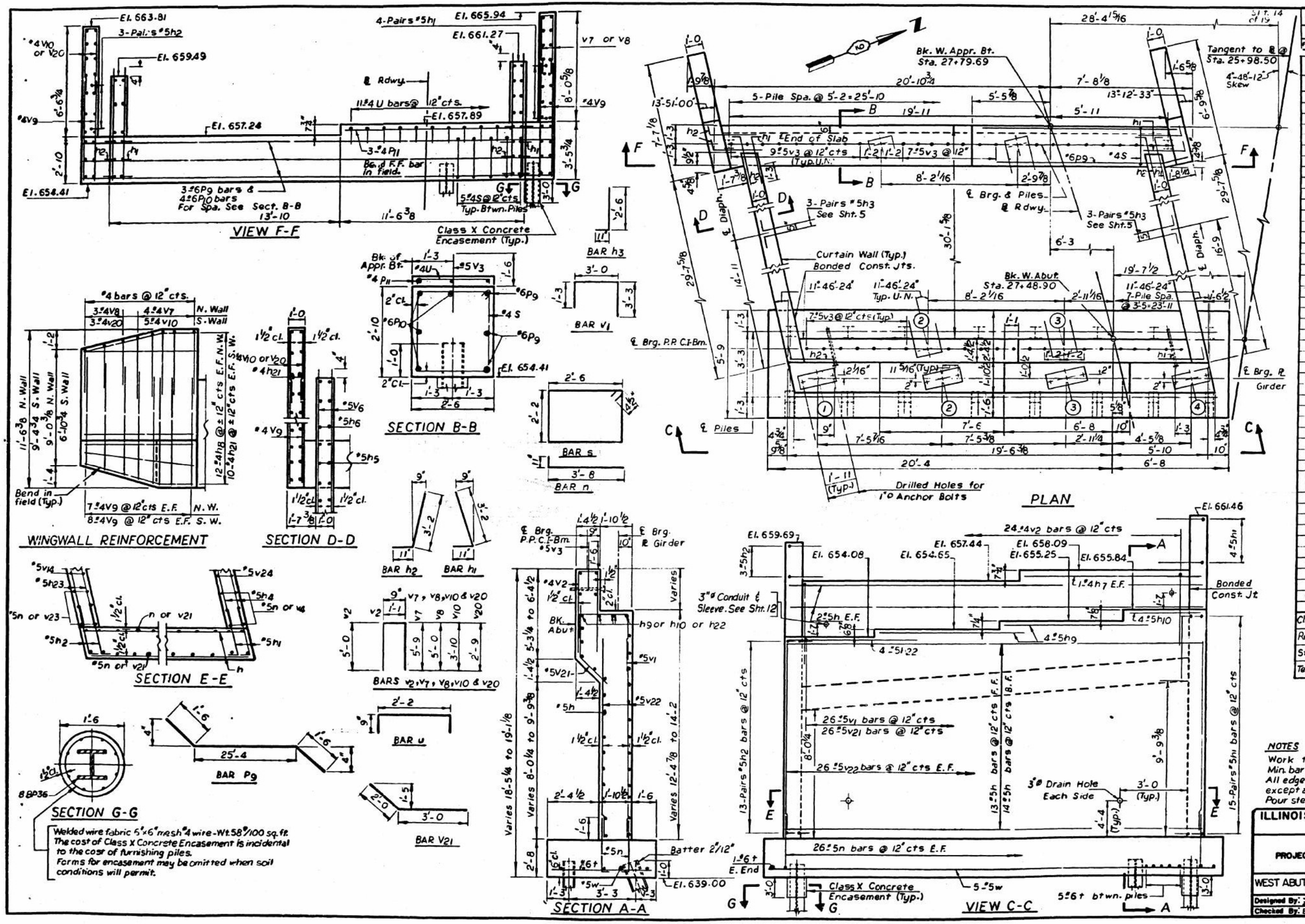

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB X1-2HB-2	WILLIAMSON	95	54
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	31	#5	25'-1	
h1	49	#5	4'-1	
h2	42	#5	4'-1	
h3	12	#5	3'-5	
h4	10	#5	25'-0	
h5	14	#5	29'-4	
h6	14	#5	31'-4	
h7	2	#4	10'-6	
h8	24	#4	6'-6	
h9	8	#5	8'-6	
h10	4	#5	4'-10	
h21	20	#4	7'-4	
h22	4	#5	6'-4	
h23	10	#5	28'-7	
h24	2	#6	26'-2	
h25	2	#6	29'-5	
n	64	#5	4'-7	
P9	3	#6	28'-4	
P10	4	#6	28'-3	
P11	3	#4	12'-5	
s	25	#4	10'-1	
t	37	#6	5'-6	
u	11	#4	3'-8	
v1	26	#5	7'-6	
v2	24	#4	11'-1	
v3	54	#5	3'-0	
v4	6	#5	19'-11	
v5	20	#5	7'-0	
v6	12	#5	5'-6	
v7	4	#4	12'-3	
v8	3	#4	10'-9	
v9	30	#4	6'-6	
v10	5	#4	8'-5	
v14	24	#5	21'-1	
v20	3	#4	6'-3	
v21	25	#5	5'-0	
v22	52	#5	12'-0	
v23	6	#5	18'-2	
v24	20	#5	24'-7	
w	5	#5	26'-9	

Class X Concrete	Cu.Yds.	83.3
Reinforcement Bars	Lbs.	7510
Steel Piles (8BP36)	Ln.Ft.	465
Test Pile, Steel (8BP36)	Ea.	1

NOTES

Work this sheet with sheet 15.
Min. bar lap – 24 Dia
All edges shall have standard 3/4" chamfer, except as noted.
Pour steps monolithically with cap.

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION XI-2HB-2
WILLIAMSON COUNTY

WEST ABUTMENT AND APPROACH BENT DETAILS

Designed By: Z.H.	Drawn By: Z.H.	Quantities By: K.R.S.
Checked By: B.A.	Checked By: K.R.S.	Checked By: Z.H.

FOR INFORMATION ONLY

CIVIL DESIGN, INC. WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -
	CHECKED - JS	REVISED -
PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 27 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	76
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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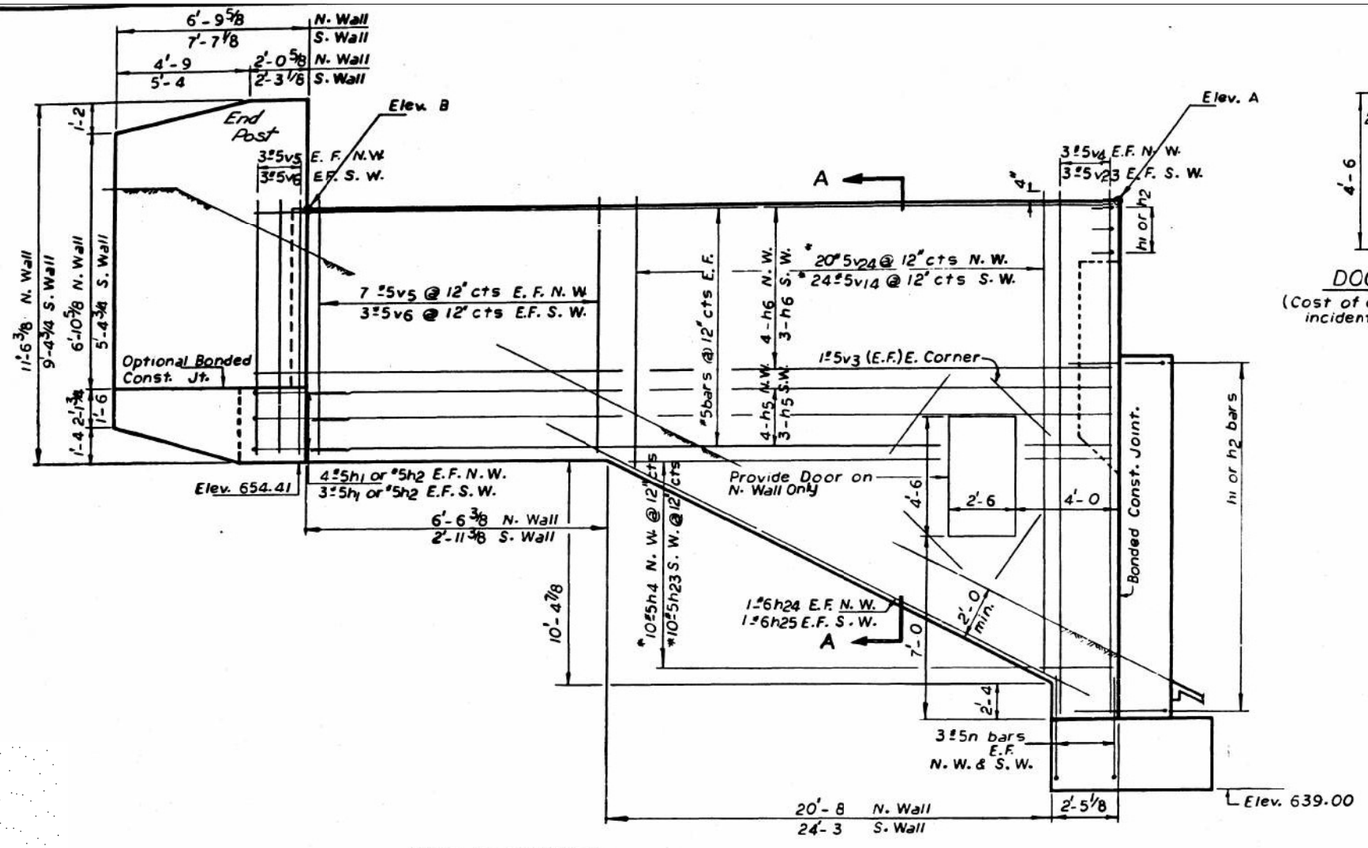
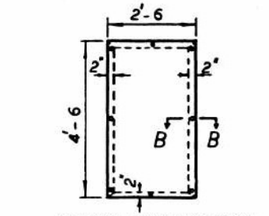
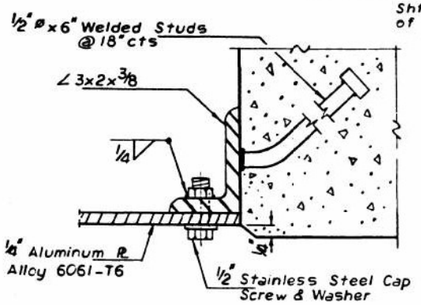


SIDE ELEVATION

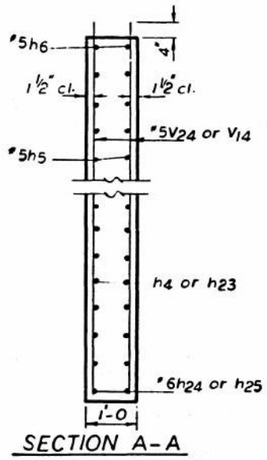


DOOR ELEVATION

(Cost of door and frame are incidental.)



SECTION B-B



SECTION A-A

Sht. 15 of 19

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB-2 X1-2HB-2	WILLIAMSON	95	55
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		

TOP OF CURTAIN WALL ELEVATIONS

Location	Elev. A	Elev. B
N. Wall	661.46	661.27
S. Wall	659.69	659.49

APPR. BENT - PILE DATA

Type: Steel (BBP36)

Capacity: drive to refusal

Est. Length: 35-0 Lg.

No. Required: 6

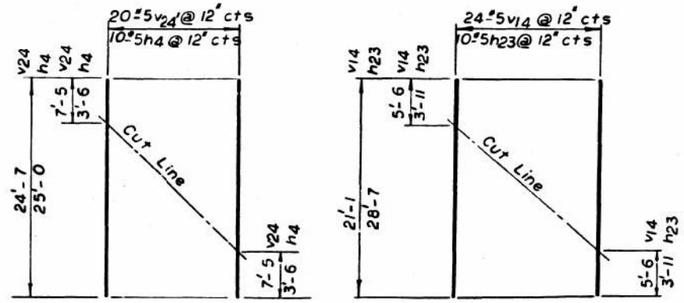
ABUT.-PILE DATA

Type: Steel (BBP36)

Capacity: drive to refusal

Est. Length: 17'-0 Lg.

No. Required: 15 (Plus One Test Pile)



FIELD CUTTING DIAGRAMS

* Order h4, h23, v24 & v14 bars full length. Cut to fit as shown and use remainder of bars in other face.

Work this sheet with sheet 14.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24

PROJECT _____ SECTION X1-2HB-2

WILLIAMSON COUNTY

WEST CURTAIN WALL DETAILS

Designed By: Z. H. | Drawn By: Z. H. | Quantities By: K.R.S.

Checked By: G. A. | Checked By: K.R.S. | Checked By: Z. H.

MODEL: Default
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EFFINGHAM, IL
LICENSE #184.003222

USER NAME =	DESIGNED - RBT	REVISED -	
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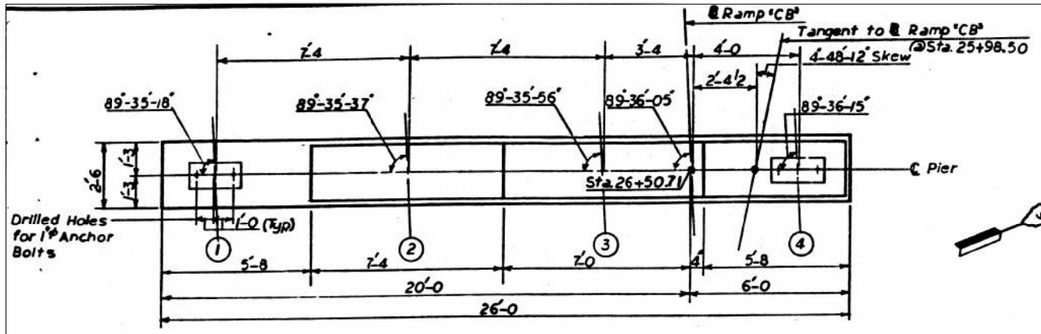
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

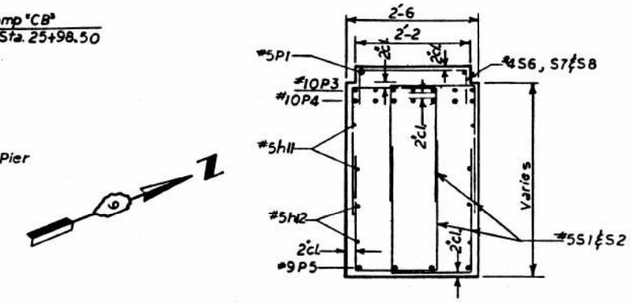
EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 28 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	77
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

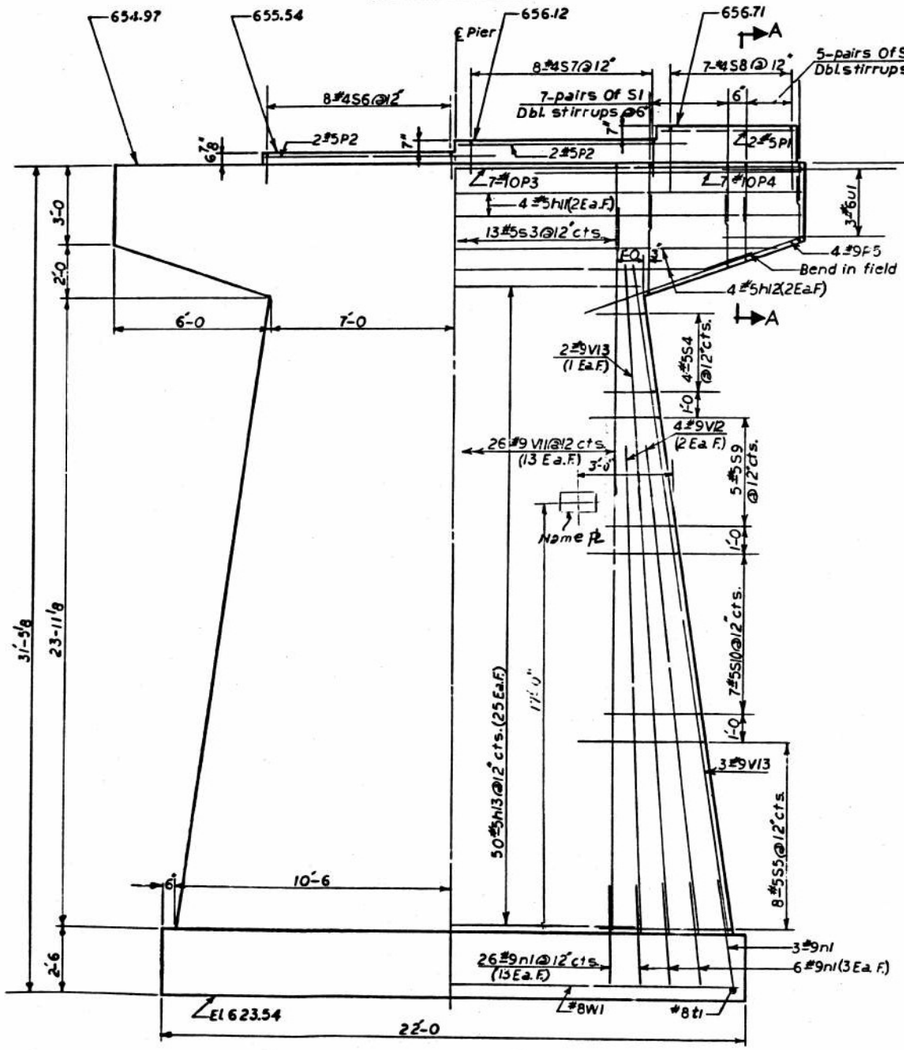
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	X1-2HB & X1-2HB-2	WILLIAMSON	95	56
FED. ROAD DIST. NO. 7	ILLINOIS	PROJ.		



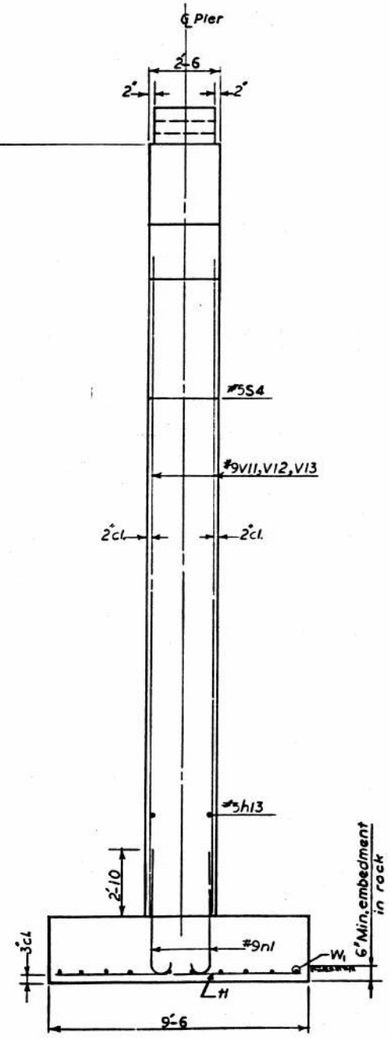
TOP VIEW



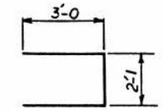
SETION A-A



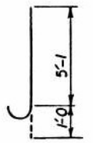
ELEVATION



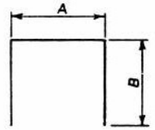
END VIEW



BAR U1



BAR n1



BARS S1 THRU S10

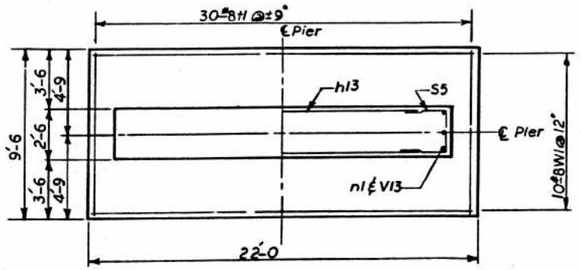
A & B DIMENSIONS

Bar	A	B
S1	1'-6	3'-0
S2	1'-6	2'-4
S3	2'-2	3'-0
S4	2'-2	1'-9
S5	2'-2	4'-9
S6	1'-10	1'-5
S7	1'-10	2'-0
S8	1'-10	2'-7
S9	2'-2	2'-6
S10	2'-2	3'-6

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11	4	#5	25'-8	
h12	4	#5	24'-11	
h13	50	#5	13'-8	
n1	44	#9	6'-1	
P1	2	#5	5'-2	
P2	4	#5	8'-3	
P3	7	#10	25'-8	
P4	14	#10	9'-0	
P5	8	#9	8'-10	
S1	56	#5	7'-6	
S2	40	#5	6'-2	
S3	13	#5	8'-2	
S4	8	#5	5'-8	
S5	16	#5	11'-8	
S6	8	#4	4'-8	
S7	8	#4	5'-10	
S8	7	#4	7'-0	
S9	10	#5	7'-2	
S10	14	#5	9'-2	
t1	30	#8	9'-2	
U1	6	#6	8'-1	
V11	26	#9	28'-0	
V12	8	#9	16'-0	
V13	10	#9	25'-0	
W1	10	#8	21'-8	
Class X concrete			Cu. Yds	70.8
Reinforcement Bars			Lbs.	9930
Name Plate			Each	One
Rock Excavation for Structures			Cu. Yds.	7.4

Note:
Space Reinf. in Cap to miss Anchor Bolts
Min. Bar laps 24 bar dia. Unless noted.
All edges shall have standard 3/4 chamfers.
Pour steps monolithically with cap.
Max. footing pressure=10.4 k.s.f.



FOOTING PLAN

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS

F.A.I. ROUTE 24
PROJECT _____ SECTION X1-2HB-2
WILLIAMSON COUNTY

PIER DETAILS

Designed By: B.A.	Drawn By: B.A.	Quantities By: B.A.
Checked By: W.F.	Checked By: H.M.	Checked By: H.M.

MODEL: Default
FILE NAME: P:\Effingham\4267 - IDOT FTB 193-32 D9 VV_CMTW0186\CAD WO #18 RT - 0059\30 EXISTING DRAWINGS=Sht37.dgn

CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

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PLOT SCALE =	DRAWN - RBT	REVISED -
PLOT DATE =	CHECKED - KAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 29 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	78
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

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CIVIL DESIGN, INC.
WBE / DBE
EFFINGHAM, IL
LICENSE #184.003222

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PLOT DATE =	CHECKED - KAS	REVISED -

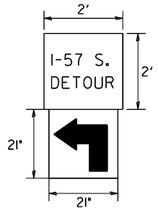
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 100-0059
SHEET 30 OF 32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	79
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

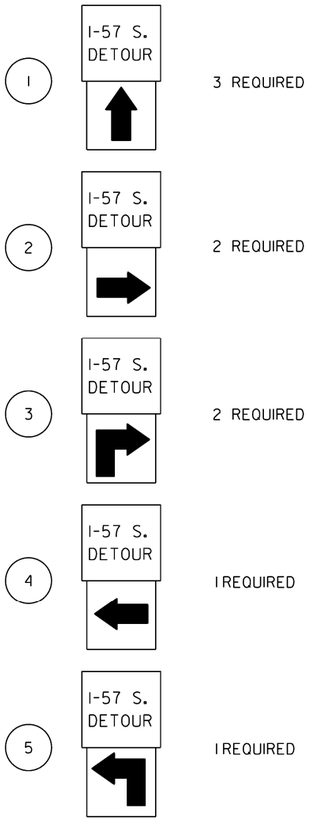
DETOUR SIGNING

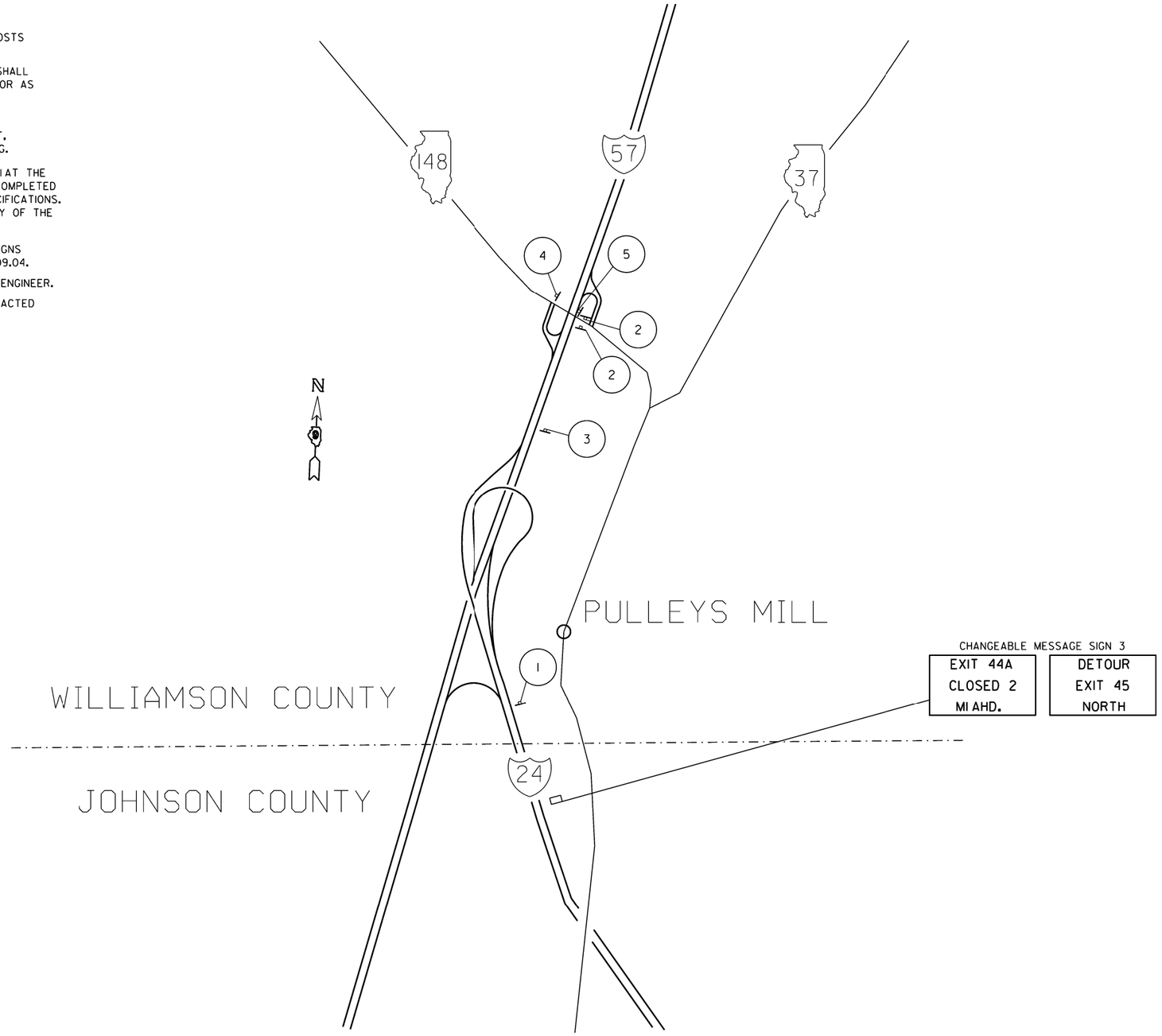
SIGN DETAIL



NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING METAL POSTS INSTEAD OF WOOD.
2. ALL SIGNS SHALL BE BLACK ON ORANGE. THE POSTS SHALL BE PLACED 12 FEET FROM THE EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.
3. THE COST OF FURNISHING, REMOVING, AND INSTALLING, ALL SIGNS, AND HARDWARE AS SHOWN ON THIS SHEET, SHALL BE INCLUDED IN THE COST OF DETOUR SIGNING.
4. SIGNS SHALL BE REMOVED ON COMPLETION OF STAGE II AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 724 OF THE STANDARD SPECIFICATIONS. THE SIGNS AND POSTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
5. THE RELOCATING, MAINTENANCE OR REPLACEMENT OF SIGNS SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
6. EXACT SIGN PLACEMENT WILL BE DETERMINED BY THE ENGINEER.
7. THE DISTRICT 9 OPERATIONS ENGINEER SHALL BE CONTACTED 10 DAYS PRIOR TO THE ERECTION OF SIGNS.





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING - SN 100-0059

SCALE: | SHEET 31 OF 32 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	80
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

LEGEND

CLOSURE AREA

SIGN ON PORTABLE OR PERMANENT SUPPORT

TYPE III BARRICADE WITH FLASHING LIGHTS

EDGE DRUMS

N

FAI 24

FAI 57

TC&P STANDARD 701401

TC&P STANDARD 701446

TC&P STANDARD 701451

DRUMS AT 50' CTS

DRUMS AT 25' CTS

+11.45

+18.81

+54.95

RAMP

MATCHLINE STA. 33+00.00

W4-3

W4-6

12'-0" LANE

+04.08

16'-6"

11'-8"

+42.26

PAVED DITCH

RAMP

MATCHLINE STA. 33+00.00

MODEL: ExCL2 - LANE PLAN1 [Sheet]
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PLOT DATE = 5/1/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP CLOSURE - SN 100-0059

SCALE: N.T.S. | SHEET 32 OF 32 SHEETS | STA. | TO STA

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24 WB	X1-2HB-2	WILLIAMSON	160	81
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

SCOPE OF WORK

1. Preform required pre-stage work including necessary shoulder work.
2. Remove existing 1½" concrete wearing surface and 1½" of the existing deck.
3. Provide Protective Shield within limits as indicated on the plans.
4. Perform deck repairs as shown. Remove and replace floor drains within deck repair areas as shown.
5. Replace finger plate joints at piers 2 with Modular expansion joints.
6. Remove and replace bridge approach slabs, abutment backwalls and pavement connectors including removal of buried pile bent caps.
7. Remove and replace bottom flange splice plates at fascia girders.
8. Clean and paint all structural steel.
9. Perform concrete repairs and modifications at Piers 2.
10. Apply concrete sealer at abutments and piers 2.
11. Repair slope walls.
12. Install new 3¼" latex concrete wearing surface and perform diamond grinding, longitudinal bridge deck grooving and apply protective coat.

Up to ¼" may be ground off the bridge deck.

DESIGN STRESSES

FIELD UNITS

New Construction
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

Existing Structure, 2001 Rehabilitation
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

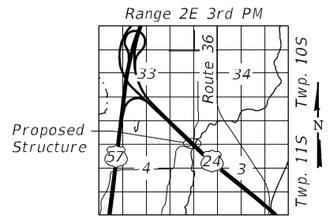
Existing Structure, 1971
fc = 1,200 psi (Superstructure)
fc = 1,400 psi (Substructure)
fs = 20,000 psi (Reinforcement)

INDEX OF SHEETS

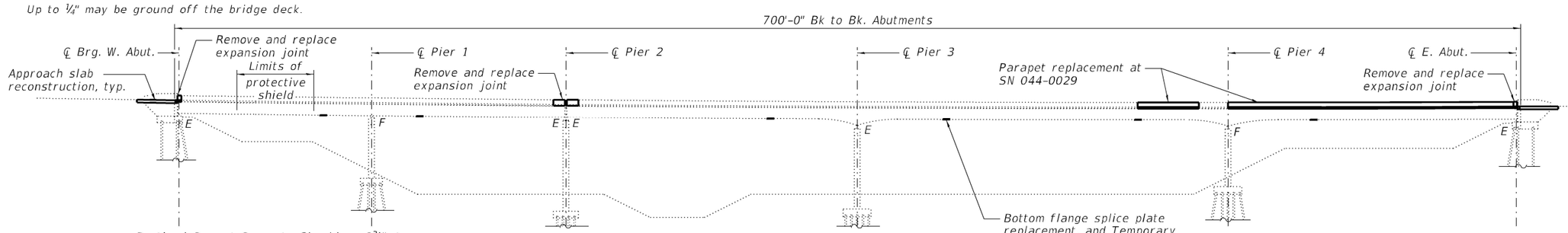
1 - General Plan and Elevation
2 - General Data
3 - Stage Construction Details
4 - Deck Patching Plan - I
5 - Deck Patching Plan - II
6 - Temporary Concrete Barrier for Stage Construction
7 - Superstructure Details - I
8 - Superstructure Details - II
9 - Superstructure Details - III
10 - Superstructure Details - IV
11 - Preformed Joint Strip Seal
12 - Modular Expansion Joint Details - I
13 - Modular Expansion Joint Details - II
14 - Approach Slab Plan
15 - Approach Slab Details
16 - Structural Steel Repair Details - I
17 - Structural Steel Repair Details - II
18 - Abutment Removal
19 - Abutment Details
20 - Pier 2 Repairs SN 044-0029
21 - Pier 2 Repairs SN 044-0030
22 - Bar Splicer Assembly and Mechanical Splicer Details
23-49 - Existing Plans

CURVE DATA

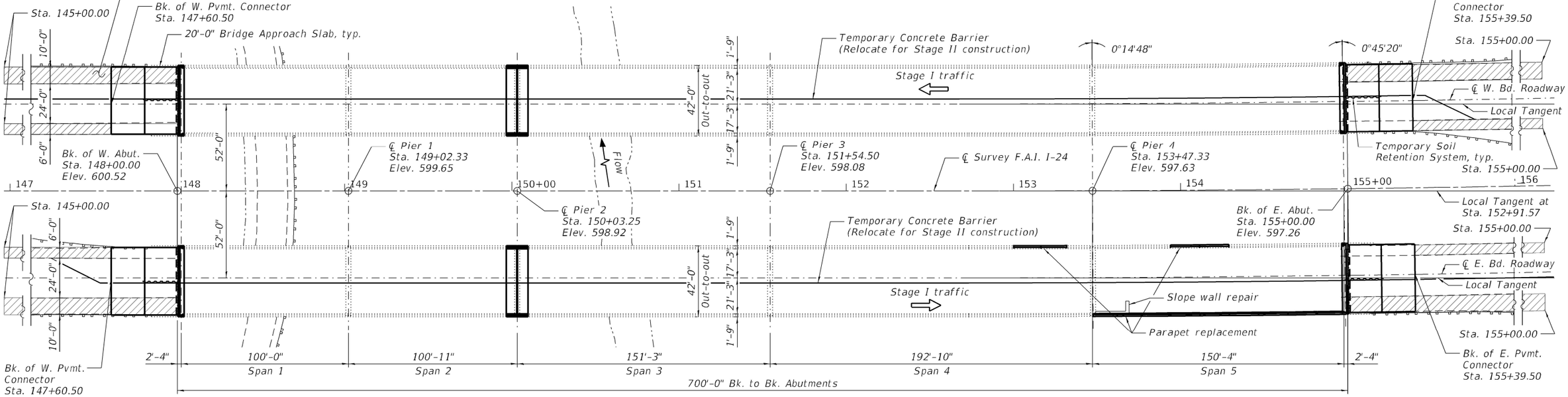
F.A.I. I-24
P.I. Sta. 160+37.36
Δ = 5° 04' 04" (LT)
D = 0° 20' 24"
R = 16,852.66'
T = 745.79'
L = 1,490.60'
E = 16.49'
S.E. = N/A
P.C. Sta. = 152+91.57
P.T. Sta. = 167+82.17



LOCATION SKETCH



ELEVATION



PLAN

LICENSED STRUCTURAL ENGINEER
JOSEPH T. HEGER
081-008156
STATE OF ILLINOIS
5-5-23
Exp. Date 11/30/2023

GENERAL PLAN AND ELEVATION
I-24 OVER T.R. 42 & LITTLE SALINE CREEK
F.A.I. 24, SECTION BRIDGE REPAIR 2023
JOHNSON COUNTY
STA. 151+50.00
SN 044-0029 & 044-0030

FILE NAME: L:\DOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\001 0029-0030 GPE.dgn

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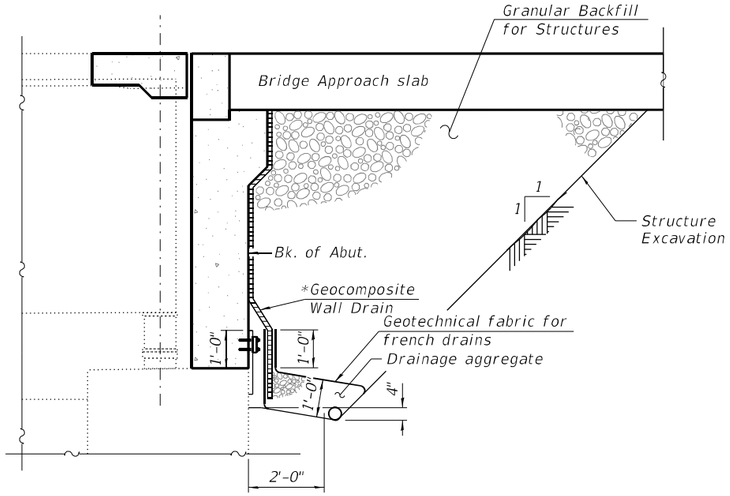
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 044-0029 (E.B.) & 0030 (W.B.)

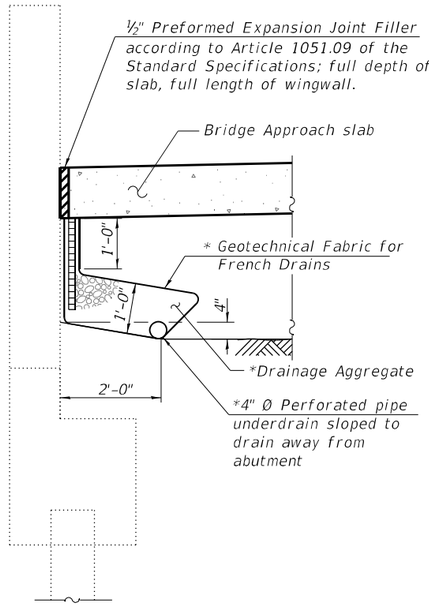
SCALE: | SHEET 1 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	82
		CONTRACT NO. 78912		
		ILLINOIS FED. AID PROJECT		



SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. ℄'s)

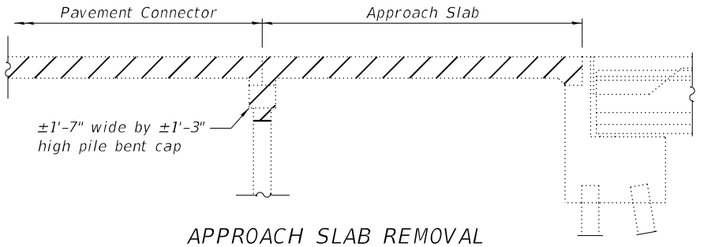


SECTION THRU ABUTMENT WINGWALL

(Horiz. dim. @ Rt. ℄'s)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:
All drainage system components shall extend 2'-0" from the end of each wingwall except an outlet pipe shall wrap around and extend until intersecting with the side slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



APPROACH SLAB REMOVAL

Existing approach slab and pavement connector to be removed. Buried pile bent cap to be completely removed. Piles shall be removed to 2' below finished grade. Approach slab and pavement connector removal shall be paid for as Approach Slab Removal. Pile bent cap removal shall be paid for as Concrete Removal. Pile removal shall be included in the cost of Concrete Removal.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SN 044-0029	SN 044-0030	TOTAL
Welded Wire Reinforcement	Sq. Yd.	178	178	356
Paved Shoulder Removal	Sq. Yd.	1,014	1,014	2,028
Portland Cement Concrete Shoulders 9 3/4"	Sq. Yd.	1,067	1,067	2,134
Concrete Removal	Cu. Yd.	96.6	62.5	159.1
Protective Shield	Sq. Yd.	168	168	336
Structure Excavation	Cu. Yd.	189	193	382
Floor Drains	Each	100	100	200
Concrete Structures	Cu. Yd.	63.9	64	127.9
Concrete Superstructure	Cu. Yd.	76.4	34.7	111.1
Protective Coat	Sq. Yd.	3,689	3695	7,384
Concrete Superstructure (Approach Slab)	Cu. Yd.	75.2	75.2	150.4
Furnishing and Erecting Structural Steel	Pound	11,140	11,140	22,280
Stud Shear Connectors	Each	12	12	24
Reinforcement Bars, Epoxy Coated	Pound	38,410	43,810	82,220
Bar Splicers	Each	588	588	1,176
Preformed Joint Strip Seal	Foot	81	81	162
Temporary Soil Retention System	Sq. Ft.	142	142	284
Granular Backfill for Structures	Cu. Yd.	181	181	362
Concrete Sealer	Sq. Ft.	1,527	1,527	3,054
Geocomposite Wall Drain	Sq. Yd.	93	93	186
Concrete Headwalls for Pipe Drains	Each	4	4	8
Pipe Underdrains for Structures 4"	Foot	162	162	324
Temporary Concrete Barrier	Foot	1,024	1,024	2,048
Pinning Temporary Concrete Barrier	Each	8	8	16
Relocate Temporary Concrete Barrier	Foot	1,024	1,024	2,048
Impact Attenuators, Temporary (Non- Redirective), Test Level 3	Each	1	1	2
Impact Attenuators, Relocate (Non- Redirective), Test Level 3	Each	1	1	2
Raised Reflective Pavement Marker	Each	3	3	6
Raised Reflective Pavement Marker (Bridge)	Each	1	1	2
Barrier Wall Reflectors, Type B	Each	26	26	52
Raised Reflective Pavement Marker Removal	Each	4	4	8
Bridge Approach Pavement Connector (Special)	Sq. Yd.	178	178	356
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,974	1,974	3,948
Structural Steel Removal	Pound	7,050	7,050	14,100
Approach Slab Removal	Sq. Yd.	107	107	214
Bridge Deck Latex Concrete Overlay, 3 1/4 Inches	Sq. Yd.	2,914	2,914	5,828
Containment and Disposal Of Lead Paint Cleaning Residues No. 1	L. sum	1	0	1
Containment and Disposal Of Lead Paint Cleaning Residues No. 2	L. sum	0	1	1
Cleaning and Painting Steel Bridge No. 1	L. sum	1	0	1
Cleaning and Painting Steel Bridge No. 2	L. sum	0	1	1
Bridge Deck Scarification 3"	Sq. Yd.	2,914	2,914	5,828
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft.	82	28	110
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	20	6	26
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	36	46	82
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	7	3	10
Diamond Grinding (Bridge Section)	Sq. Yd.	3,003	3,003	6,006
Modular Expansion Joint 6"	Foot	41	41	82
Slope Wall Repair	Sq. Yd.	7	0	7
Slope Wall Slurry Pumping	Cu. Yd.	3	0	3
Temporary Support System	Each	12	12	24

SLOPE WALL REPAIRS

On the west slope wall there is an undermined opening. It is located near the south edge of the west abutment of SN 044-0029. The areas to be repaired are composed of two areas, approximately 20' x 2' and 8' x 2'.

The voided areas shall be filled with Slope Wall Slurry Pumping as directed by the Engineer. Approximate quantities have been included. Contractor shall be paid for actual quantity of slurry placed. Small areas of slope wall may need to be removed to access the voids in the slope walls. Any removals shall be repaired. Cost of removal and repairs shall be included with Slope Wall Slurry Pumping.

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Prior to pouring new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
3. Plan dimensions and details are relative to existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
5. The designated areas cleaned per Near White Blast Cleaning (SSPC- SP10) shall be painted according to the requirements of the Organic Zinc-Rich Primer/Epoxy Intermediate Coat/Urethane Topcoat system. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flangeof the fascia beams shall be Interstate Green, Munsell No 7.5G 4/8.
6. SSPC QP1 and SSPC QP2 Certification is required for this Contract.
7. Joint openings shall be adjusted according to Art. 520.04 in the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.
8. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
9. Existing reinforcement bars extending into the removed area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
10. To retain the temporary concrete barrier for Stage II traffic, the Contractor shall have the option of using either 2 (#5) bar splicers or 2 cast in place inserts at 6" centers at the mid-depth of the approach slab and pavement connector. The bar splicers or inserts shall have a minimum proof load of 5,000 pounds. Along with the anchoring devices the Contractor shall provide one steel retainer plate and 2 - ½" diameter bolt and washers every 6' as shown on Detail II on Standard R-27 (Sheet 6 of 49) from Sta. 147+60.50 to Sta. 148+00.00 and Sta. 155+00.00 to Sta. 155+39.50 for SN 044-0029 and Sta. 147+60.50 to Sta. 148+00.00 and Sta. 155+00.00 to 155+39.50 for SN 044-0030 for Stage II traffic. This work shall be included in the cost of Temporary Concrete Barrier, no additional compensation shall be provided.
11. Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts in painted areas. Bolts ⅞" diameter, holes $1\frac{5}{16}$" diameter, unless otherwise noted.
12. All structural steel shall be AASHTO M270 Grade 50.

FILE NAME: L:\IDOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\0002 0029-0030 General Data.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 2 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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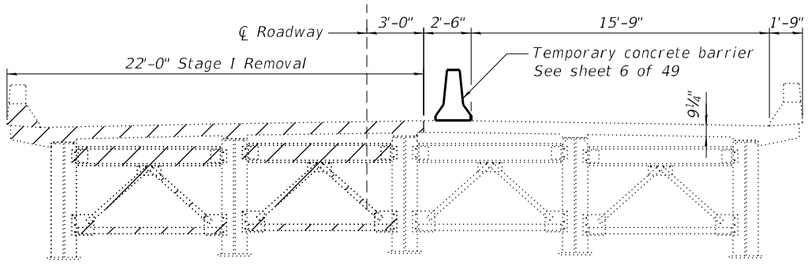
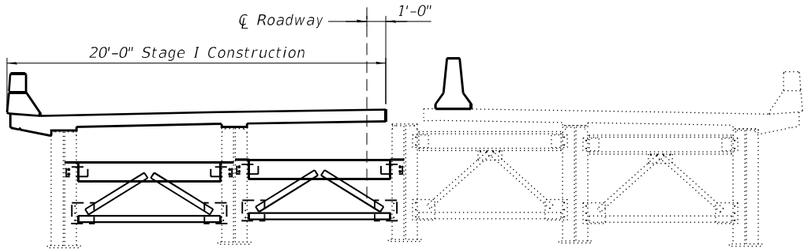
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



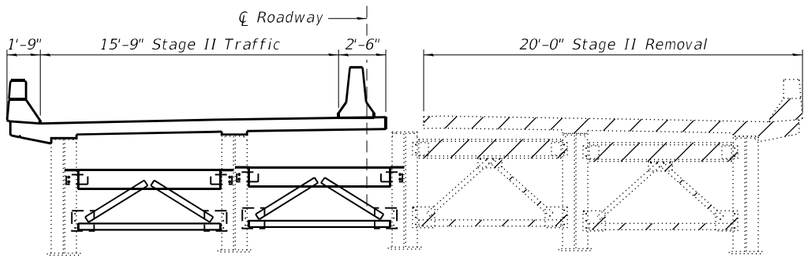
STAGE I REMOVAL

(Looking in the direction of traffic)



STAGE I CONSTRUCTION

(Looking in the direction of traffic)



STAGE II REMOVAL

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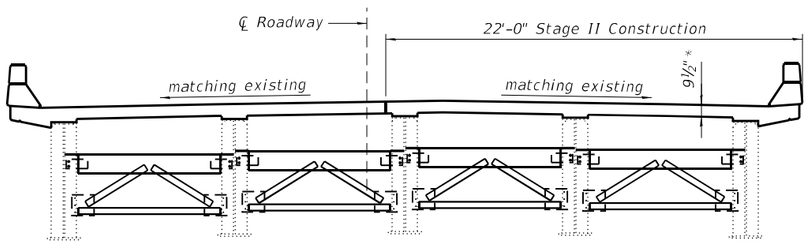


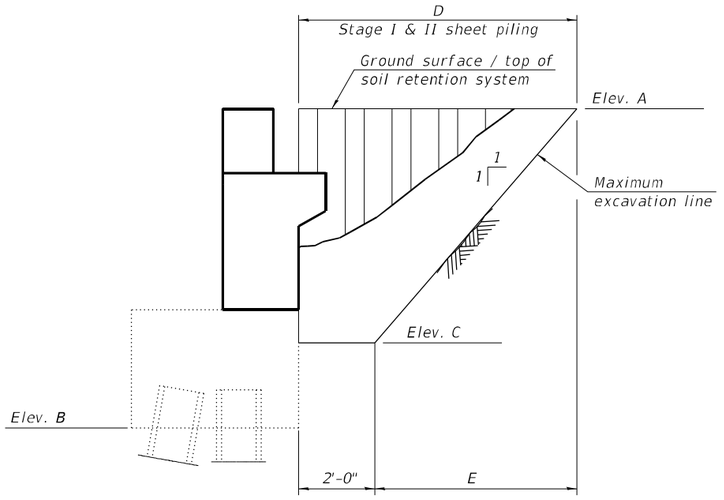
STAGE II CONSTRUCTION

(Looking in the direction of traffic)

* Prior to diamond grinding

Construction Stage Notes:

1. *Hatched area in concrete elements indicates Concrete Removal at abutments and Pier 2.*
2. *Hatched area in steel elements indicates Structural Steel Removal at Pier 2. For cross frame replacement details at Pier 2 see sheet 17 of 19.*



TEMPORARY SOIL RETENTION SYSTEM

Location	Elev. A	Elev. B	Elev. C	Dim. D	Dim. E
SN 044-0029 W. Abut.	600.52	588.38	590.55	11'-11⅝"	9'-11⅝"
SN 044-0029 E. Abut.	597.26	584.94	587.11	12'-1⅞"	10'-1⅞"
SN 044-0030 W. Abut.	600.52	588.38	590.55	11'-11⅝"	9'-11⅝"
SN 044-0030 E. Abut.	597.26	584.94	587.11	12'-1⅞"	10'-1⅞"

Temporary Soil Retention Notes:

1. *A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.*
2. *Elevations and dimensions shown are approximate based on existing plan data. Exact elevations and dimensions required shall be field verified by the Contractor.*

FILE NAME: L:\IDOT\190610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\003 0029-0030 Stage Construction Details.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 3 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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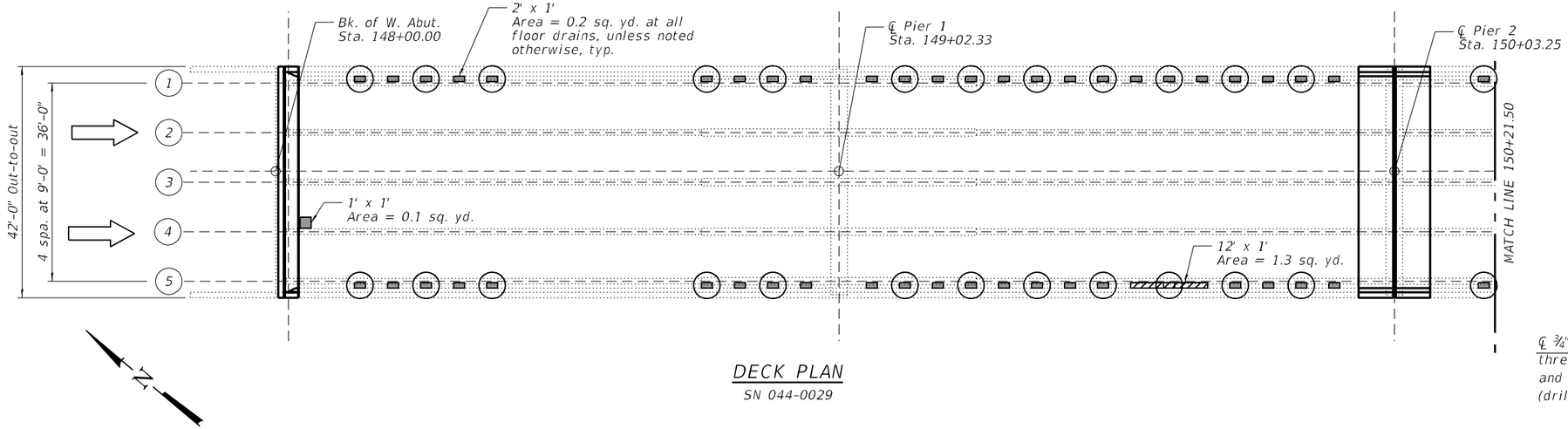
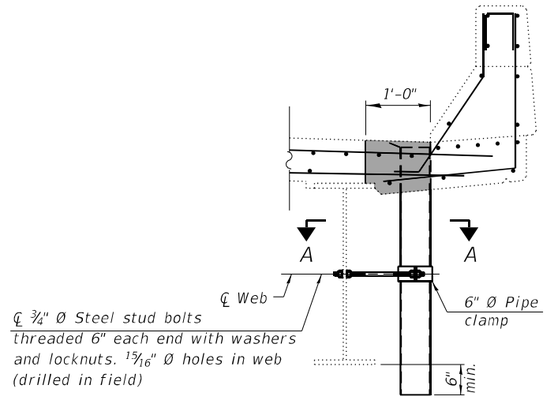
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

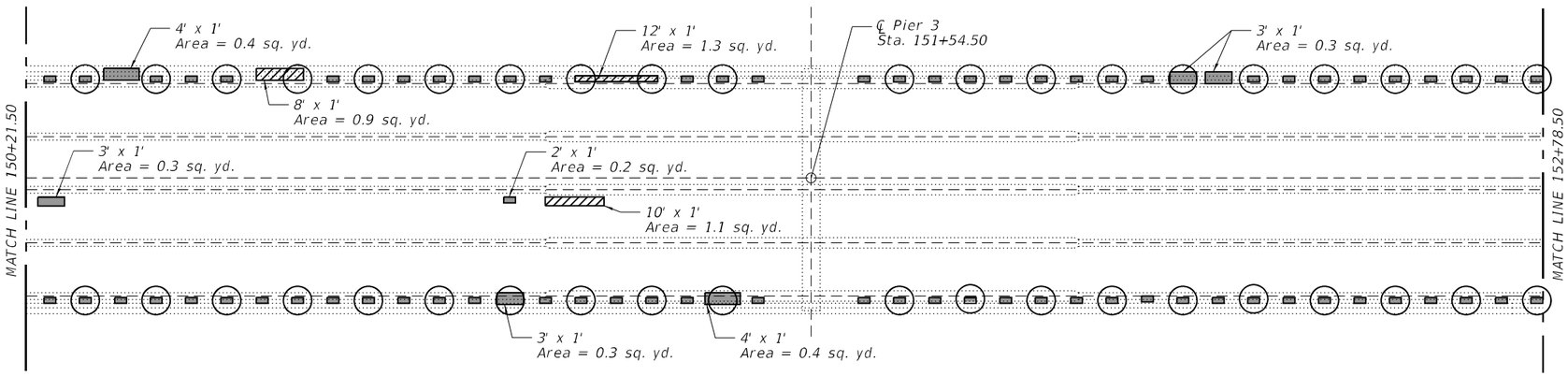


DECK PLAN

SN 044-0029

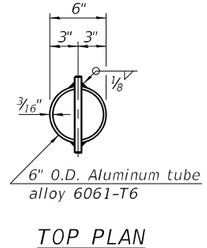


SECTION THRU PARAPET



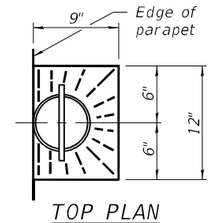
DECK PLAN

SN 044-0029

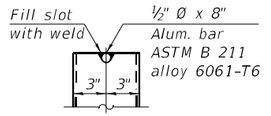


TOP PLAN

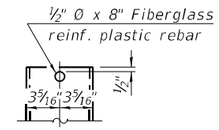
(Showing aluminum tube)



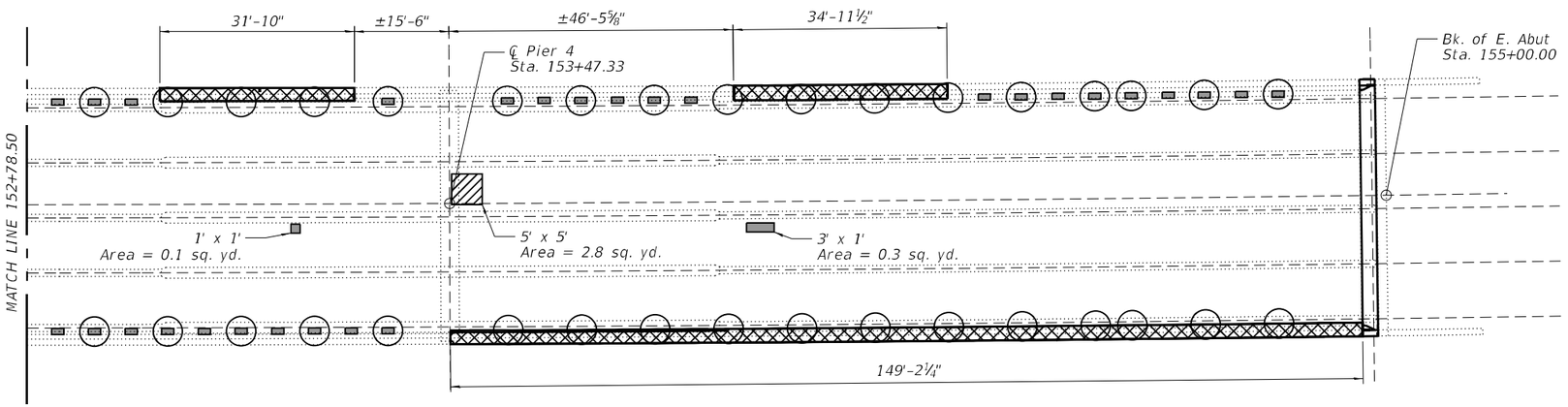
TOP PLAN



ALUMINUM TUBE



FIBERGLASS PIPE

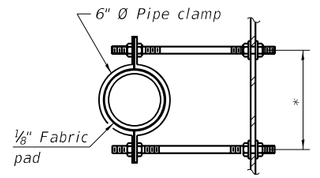


DECK PLAN

SN 044-0029

LEGEND

- Full Depth, Type I
- Full Depth, Type II
- Replace Drain Extension
- Concrete Removal



SECTION A-A

*Dimension as required by pipe clamp

FILE NAME: L:\DOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\004 0029-0030 Deck Patching Plan - 1.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PATCHING PLAN – I
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 4 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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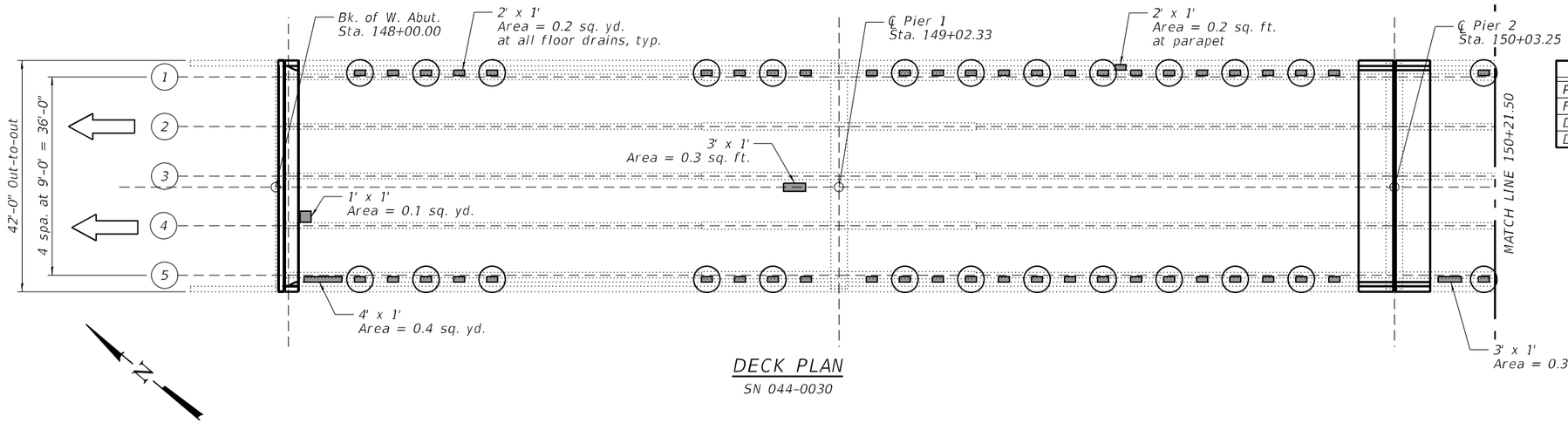
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



DECK PLAN
SN 044-0030

BILL OF MATERIAL

ITEM	UNIT	Total
Protective Shield	Sq. Yd.	934
Floor Drains	Each	200
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	82
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	10

LEGEND

- Full Depth, Type I
- Full Depth, Type II
- Replace Drain Extension

DECK PLAN
SN 044-0030

DECK PLAN
SN 044-0030

Notes:
1. The Resident Engineer will determine final patch locations and quantities in the field after removal of the concrete wearing surface, before bridge deck patching operations begin.
2. The Engineer shall show actual locations of deck repairs on As-built Plans.
3. Existing floor drains shall be removed at each existing floor drain location. New 6" circular floor drains shall be installed as shown. See existing plan sheets for drain details. Cost for removal of existing floor drains included with Deck Slab Repair (Full Depth, Type I).
4. The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting Existing Steel Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coating's Spec. SSPC-SPI prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. Galvanize clamping device according to AASHTO M232. Cost of clamping device and galvanizing included with Floor Drains.
5. See sheet 4 of 49 for Drain Extension details.

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DEPARTMENT OF TRANSPORTATION

DECK PATCHING PLAN – II
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 5 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 78912		
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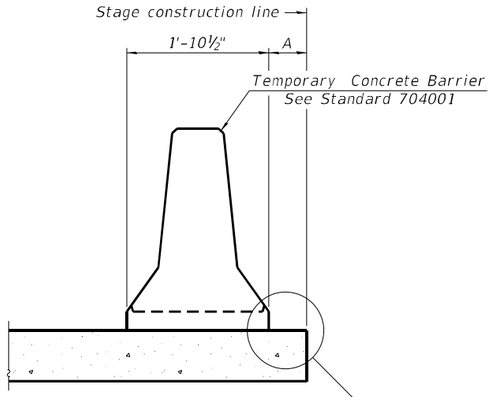
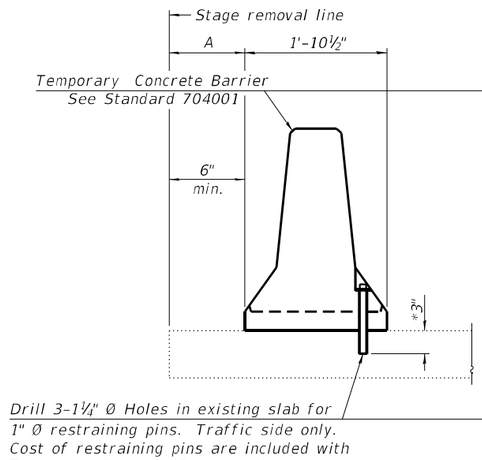


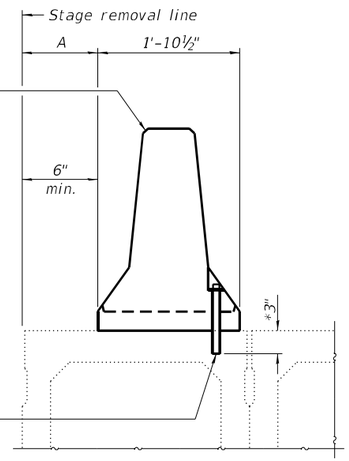
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

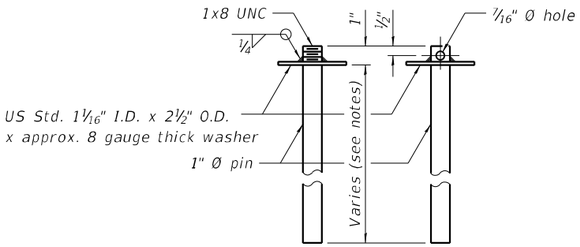
EXISTING SLAB



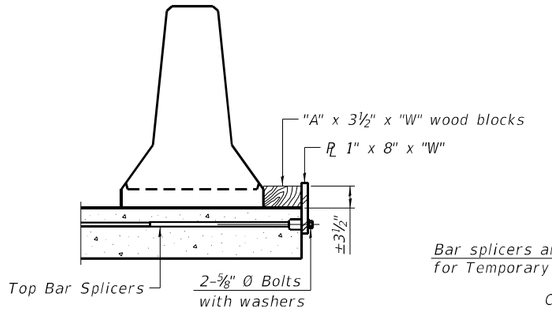
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

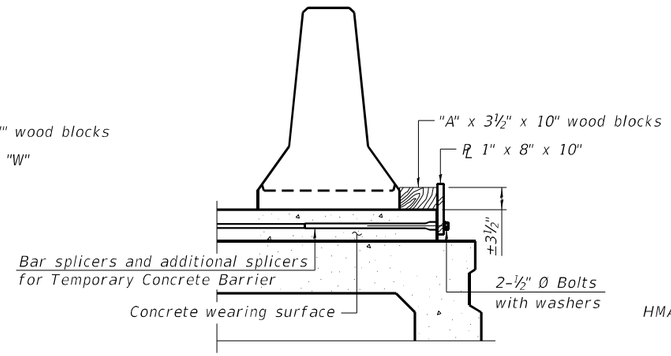
SECTIONS THRU SLAB OR DECK BEAM



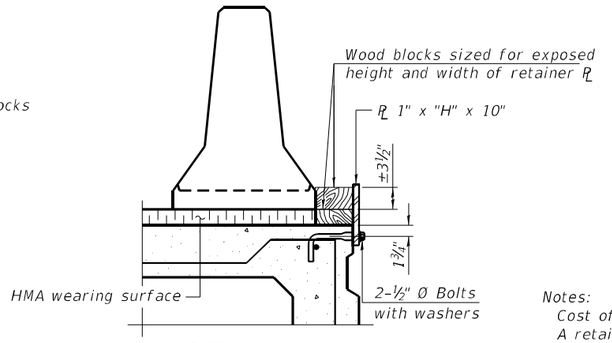
RESTRAINING PIN



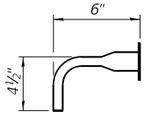
DETAIL I



DETAIL II



DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

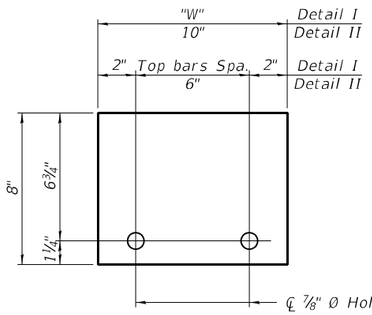
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

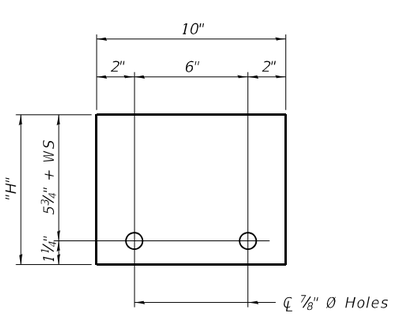
Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

FILE NAME: L:\IDOT\190610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\006 0029-0030 Temporary Concrete Barrier for Stage Construction.dgn

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DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 6 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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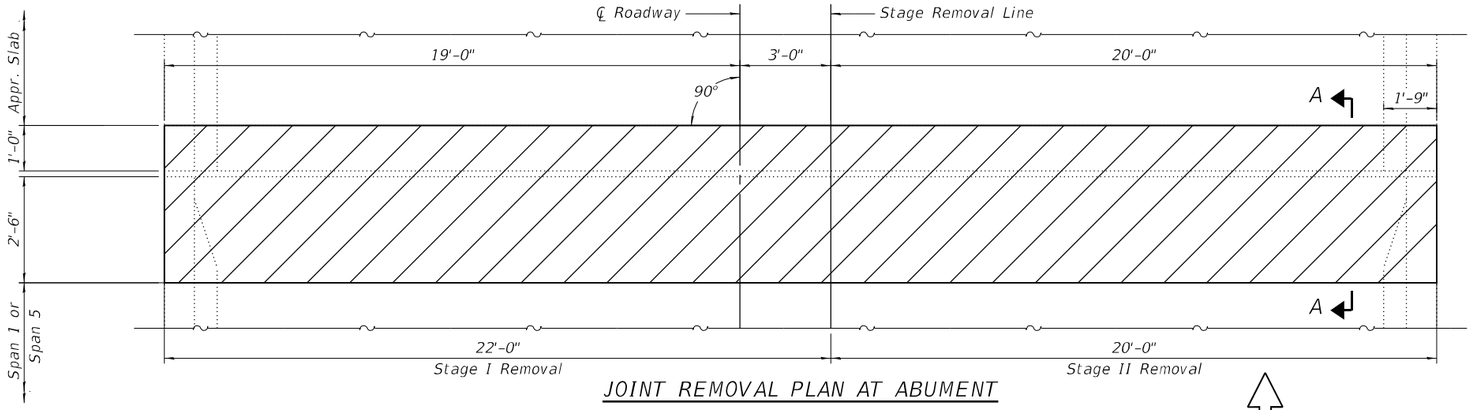
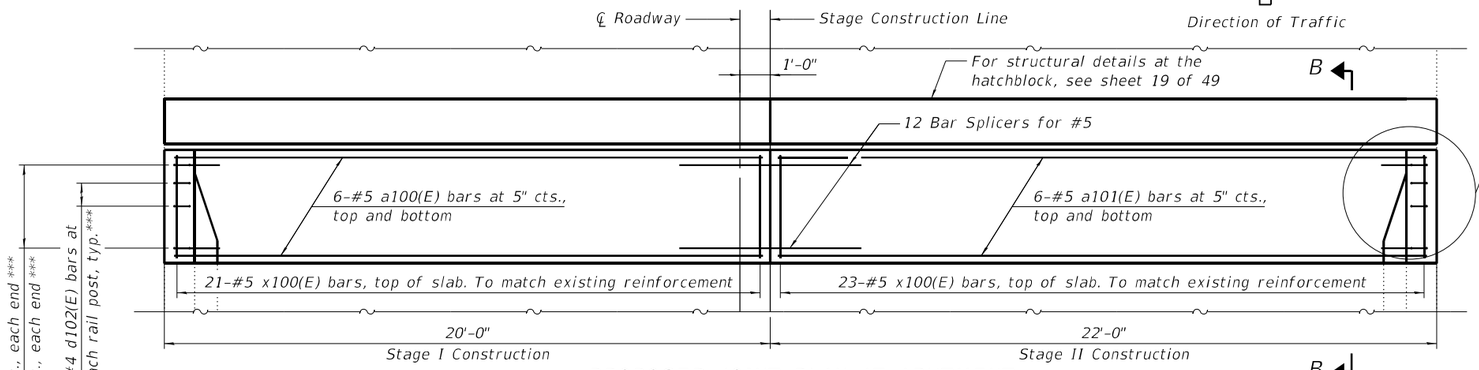
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			



JOINT REMOVAL PLAN AT ABUMENT

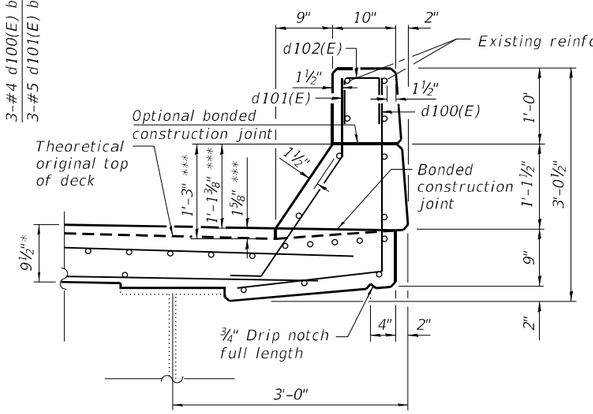
SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar

Direction of Traffic



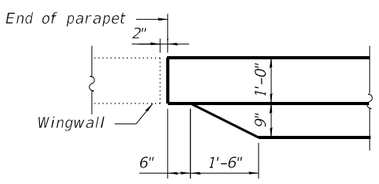
PROPOSED JOINT PLAN AT ABUTMENT

SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar



SECTIONS THRU PARAPET AT JOINT

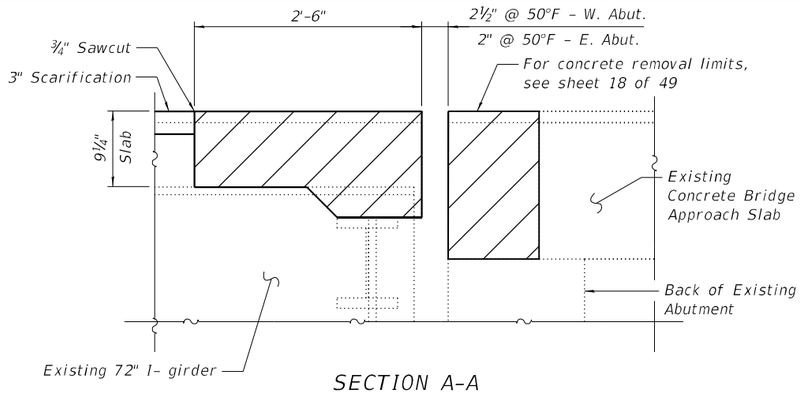
*** Dimensions based on original deck thickness. Proposed parapet section to align with existing parapet section.



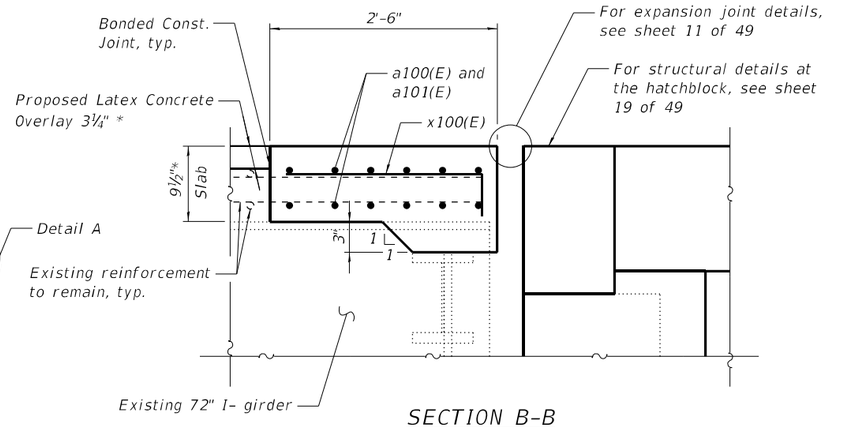
DETAIL A

LEGEND

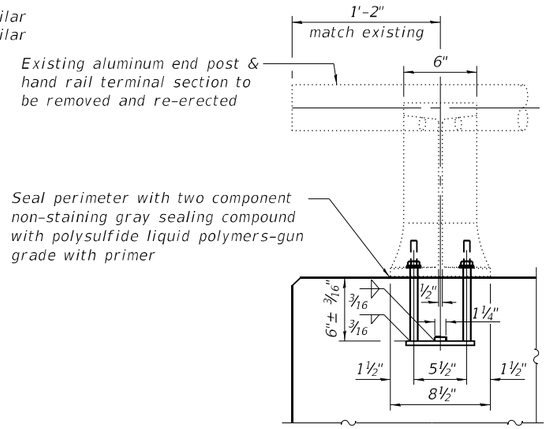
Concrete Removal

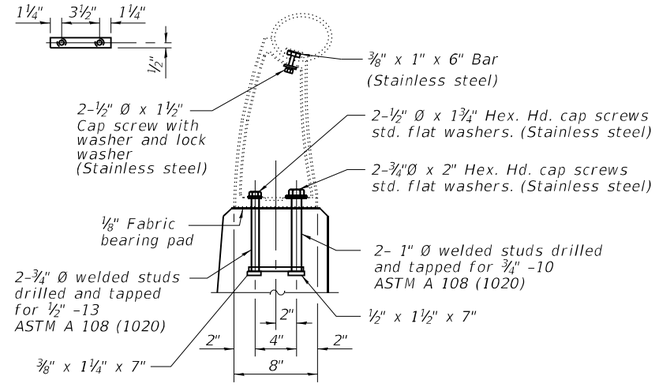


SECTION A-A



SECTION B-B





RAIL POST DETAILS

* Prior to diamond grinding

** 2 bars included at each end of each joint. Not all bars will be used. Clean and reset any rail post anchorages exposed.

*** S. parapet at E. abutment joint of SN 044-0029 shall be built as a single element.

Notes:
1. Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction.
2. For bar d100(E), d101(E), d102(E), and x100(E) details, see sheet 8 of 49.
3. Rail shall be removed and re-erected as necessary to allow structure modifications. Cost included in Concrete Removal.

FILE NAME: L:\IDOT\190661\0\WO 18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\007 0029-0030 Superstructure Details - I (Abut).dgn

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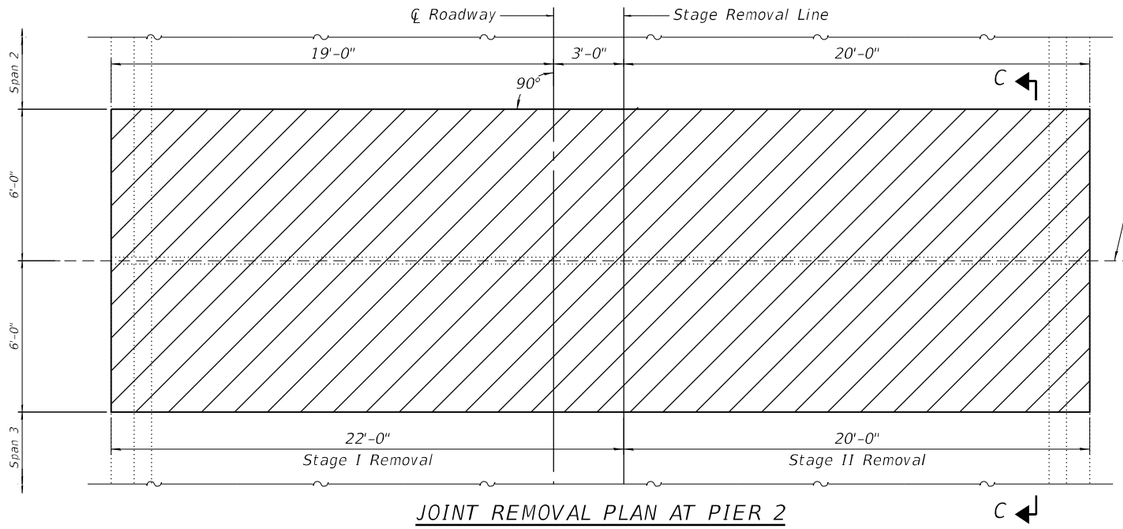
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS – I
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 7 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	88
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			

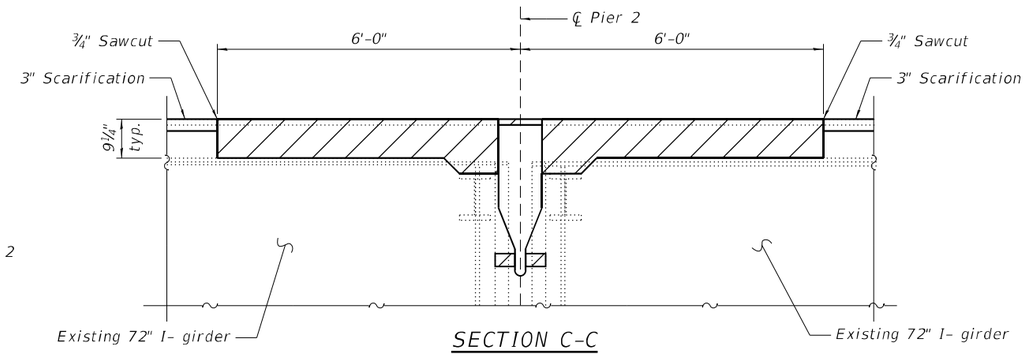


JOINT REMOVAL PLAN AT PIER 2

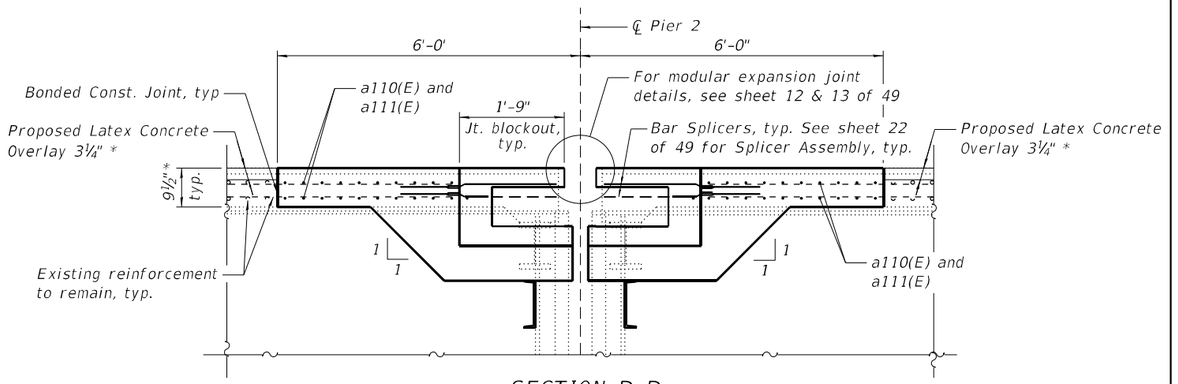
LEGEND

Concrete Removal

Direction of Traffic



SECTION C-C



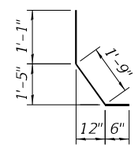
SECTION D-D

* Prior grinding

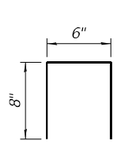
BAR a115(E), a116(E), a117(E) and a118(E)

(Headed)

BAR d100(E)

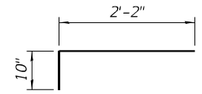


BAR d101(E)

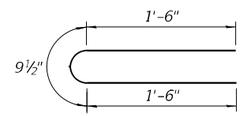


BAR d102(E)

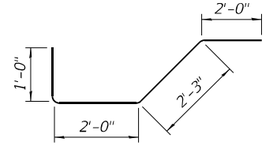
Bar	A
a115(E)	8'-8"
a116(E)	2'-6"
a117(E)	8'-8"
a118(E)	2'-6"



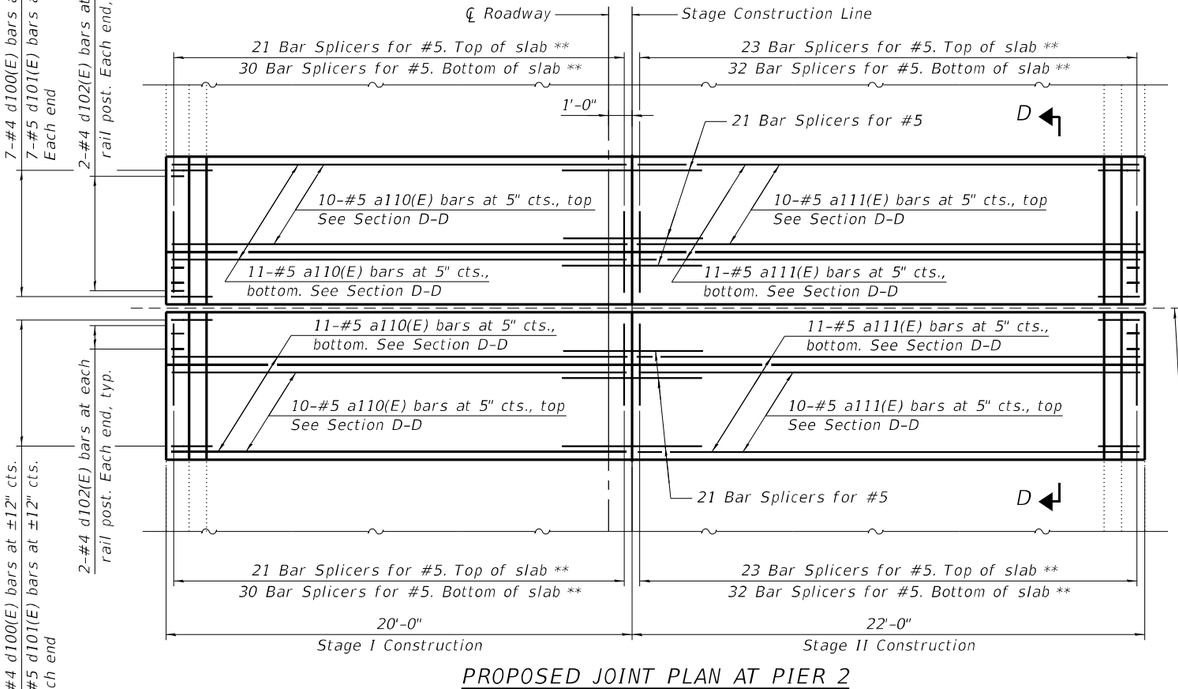
BAR x101(E)



BAR x101(E)



BAR x102(E)



PROPOSED JOINT PLAN AT PIER 2

** To match existing reinforcement

Notes:
1. Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction.
2. The cost of removal and disposal of the existing finger plate expansion joint, elastomeric drainage through and all associated hardware is included with Concrete Removal.
3. For Cross Section thru Parapet, see sheet 7 of 49.
4. For rail details see sheet 7 of 49.

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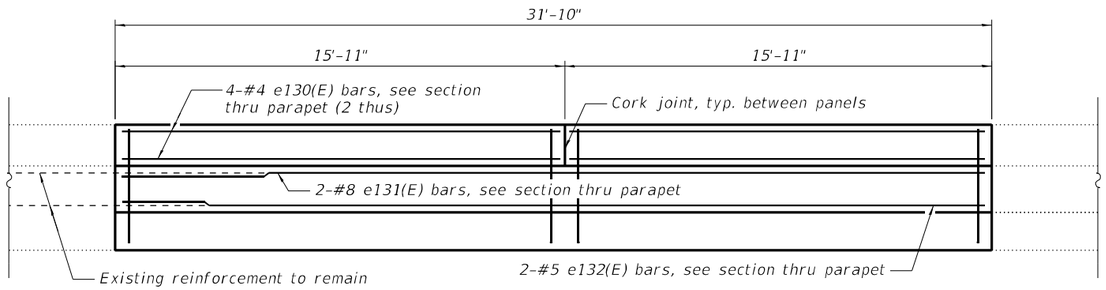
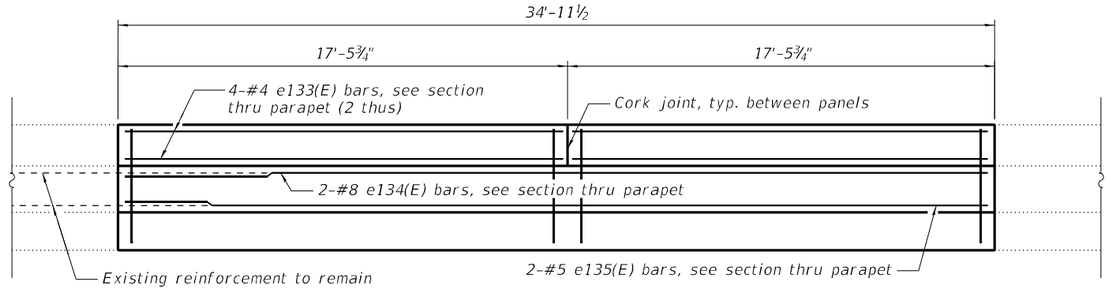
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS – II
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 8 OF 49 SHEETS | STA. | TO STA.

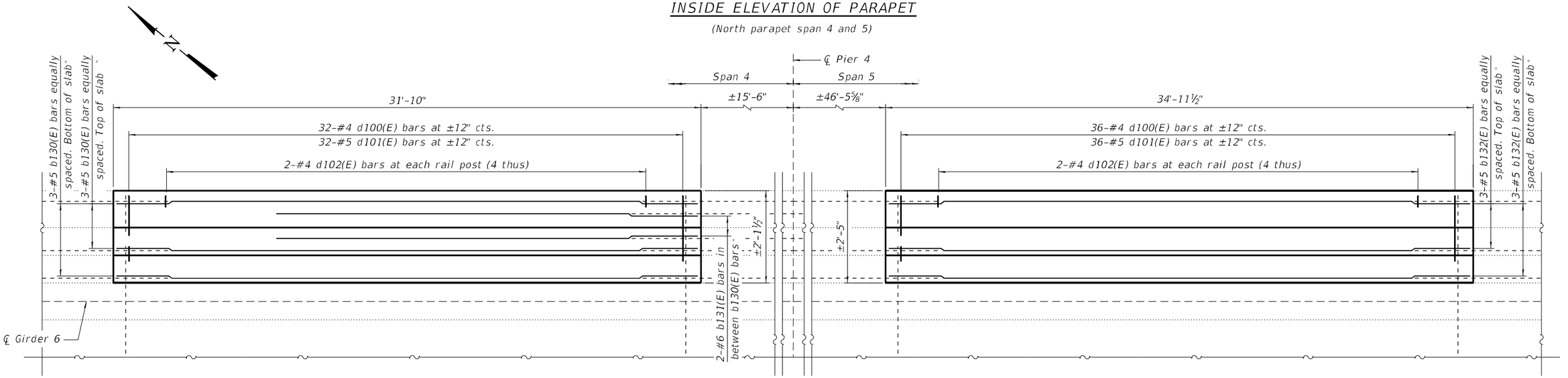
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	89
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		





INSIDE ELEVATION OF PARAPET

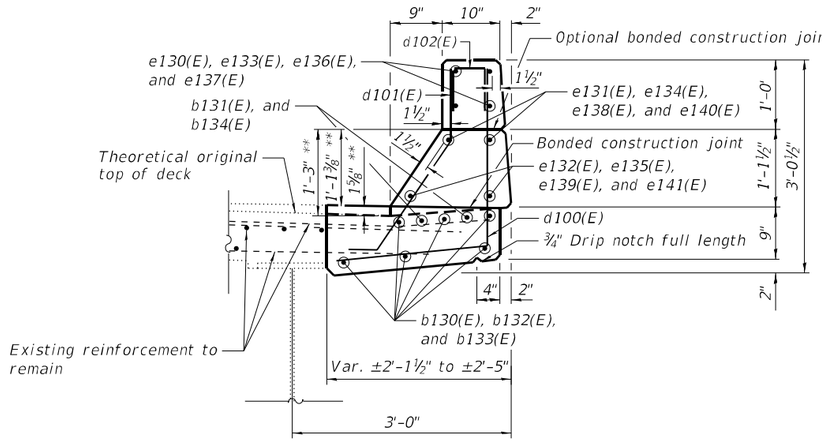
(North parapet span 4 and 5)



PLAN

(North parapet span 4 and 5)

* Lap with existing reinforcement



SECTION THRU PARAPET

** Dimensions based on original deck thickness. Proposed parapet section to align with existing parapet section.

MIN. LAP

#5 bar = 3'-1"
#6 bar = 4'-5"
#8 bar = 5'-11"

Notes:
1. The Resident Engineer will determine final dimensions and quantities in the field.
2. Existing transverse and longitudinal bars in slab shall remain and be incorporated into the new construction.
3. For bar d100(E), d101(E), and d102(E) details, see sheet 7 of 49.
4. Rail shall be removed and re-erected as necessary to allow structure modifications. Cost included in Concrete Removal.
5. For rail details see sheet 7 of 49.
6. For parapet details joint see sheet 10 of 49.

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DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS – III
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 9 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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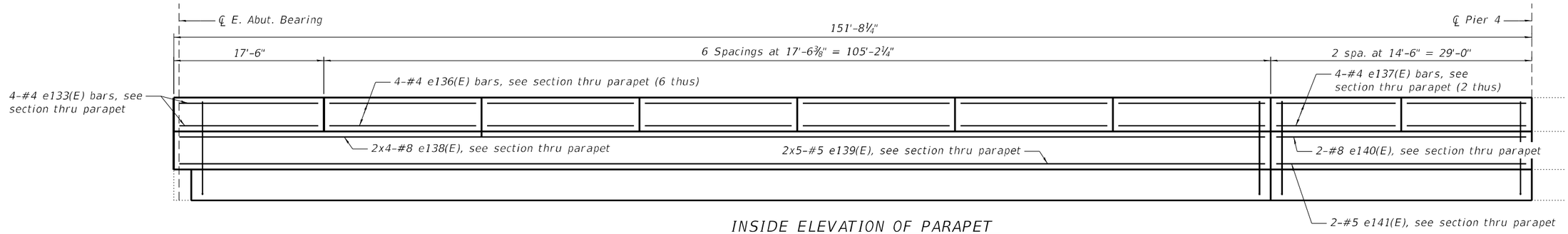
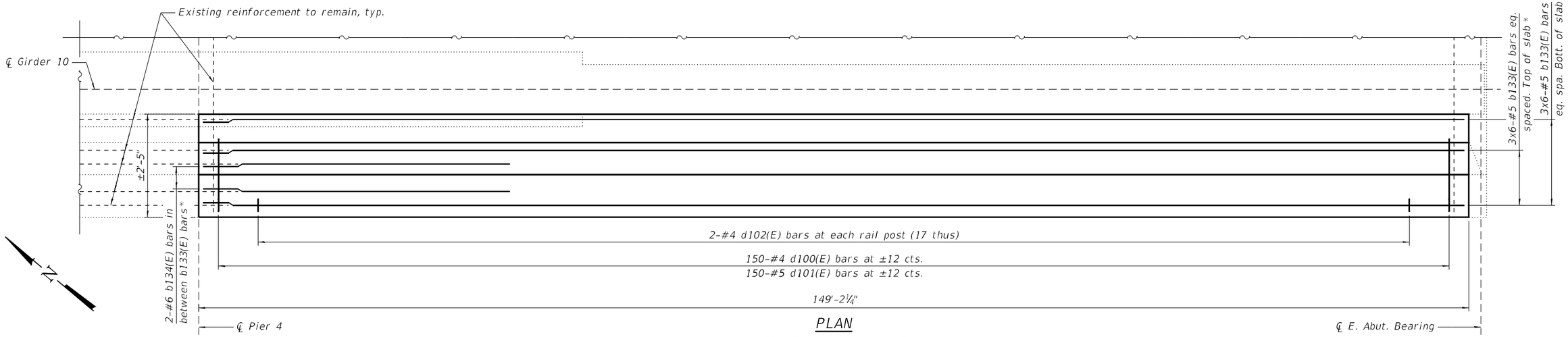
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



INSIDE ELEVATION OF PARAPET

(South parapet at span 5)

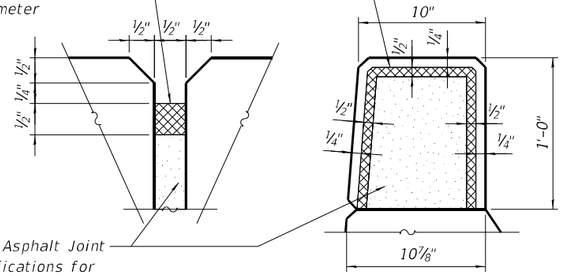


PLAN

(South parapet at span 5)

* Lap with existing reinforcement

Two component non-staining graysealing compound with polysulfide liquid polymers gun grade with perimeter



½" Preformed Cork Asphalt Joint Filler. (meets qualifications for ASTM: Designation D1751) Cost incidental

PARAPET DETAIL JOINT

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a100(E)	12	#5	19'-8"	
a101(E)	12	#5	21'-8"	
a110(E)	42	#5	19'-8"	
a111(E)	42	#5	21'-8"	
a113(E)	8	#6	19'-8"	
a114(E)	8	#6	21'-8"	
a115(E)	16	#6	8'-8"	
a116(E)	8	#6	2'-6"	
a117(E)	112	#7	8'-8"	
a118(E)	56	#7	2'-6"	
b130(E)	6	#5	31'-6"	
b131(E)	2	#6	31'-6"	
b132(E)	6	#5	34'-7"	
b133(E)	36	#5	27'-6"	
b134(E)	2	#6	27'-7"	
d100(E)	224	#4	4'-4"	
d101(E)	224	#5	3'-4"	
d102(E)	64	#4	1'-10"	
e130(E)	8	#4	15'-7"	

SUPERSTRUCTURE BILL OF MATERIAL CONTINUED

Bar	No.	Size	Length	Shape
e131(E)	2	#8	31'-6"	
e132(E)	2	#5	31'-6"	
e133(E)	12	#4	17'-2"	
e134(E)	2	#8	34'-7"	
e135(E)	2	#5	34'-7"	
e136(E)	24	#4	17'-2"	
e137(E)	8	#4	14'-2"	
e138(E)	8	#8	36'-0"	
e139(E)	10	#5	27'-0"	
e140(E)	2	#8	28'-8"	
e141(E)	2	#5	28'-8"	
x100(E)	176	#5	3'-0"	
x101(E)	168	#6	3'-10"	
x102(E)	168	#6	7'-3"	
Concrete Removal			Cu. Yd.	81.2
Concrete Superstructure			Cu. Yd.	111.5
Reinforcement Bars, Epoxy Coated			Pound	14,160

MIN. LAP

#5 bar = 3'-1"
#6 bar = 4'-5"
#8 bar = 5'-11"

Notes:
1. The Resident Engineer will determine final dimensions and quantities in the field.
2. Existing transverse and longitudinal bars in slab shall remain and be incorporated into the new construction.
3. For bar d100(E), d101(E), and d102(E) details, see sheet 7 of 49.
4. For Cross Section thru Parapet, see sheet 9 of 49.
5. Rail shall be removed and re-erected as necessary to allow structure modifications. Cost included in Concrete Removal.
6. For rail details see sheet 7 of 49.

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DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS – IV
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 10 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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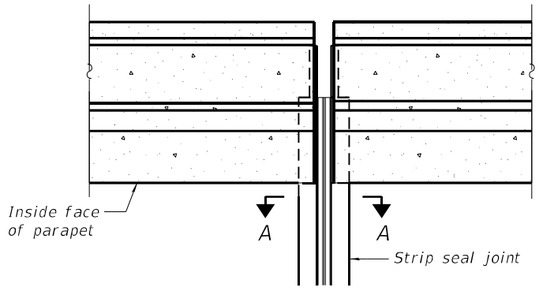
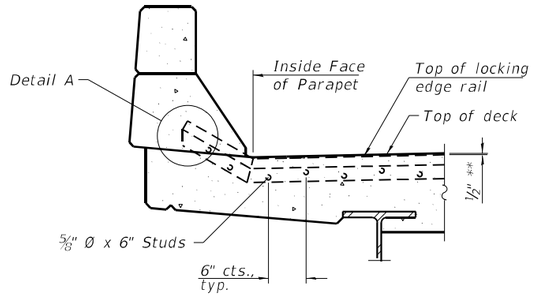
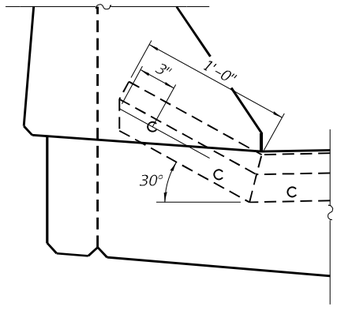
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



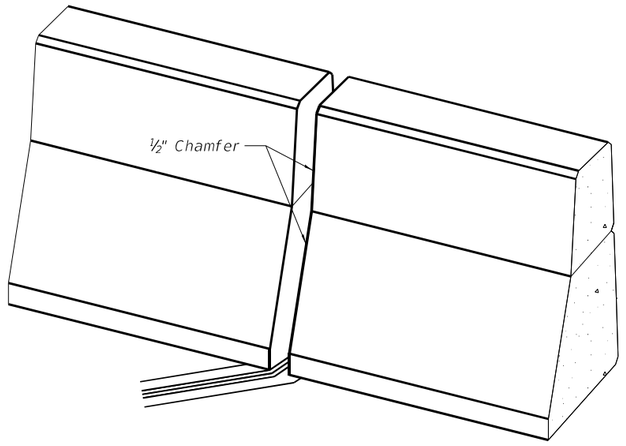
PLAN AT PARAPET



SECTION AT PARAPET

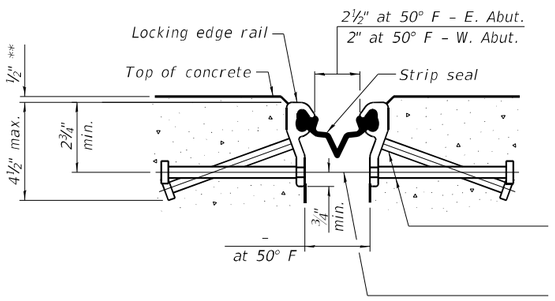


DETAIL A



TRIMETRIC VIEW
(Showing embedded plates only)

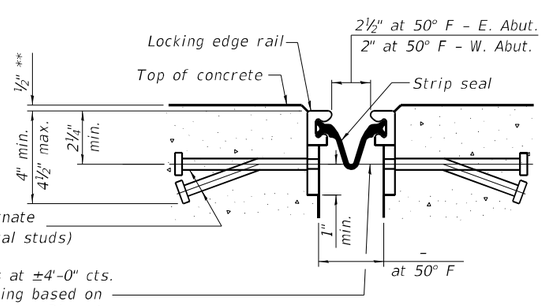
Notes:
1. The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
2. The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.
3. The manufacturer's recommended installation methods shall be followed.
4. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
5. The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.
6. The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

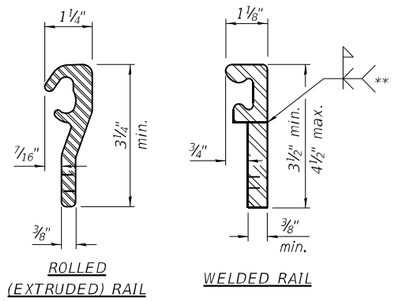


SHOWING WELDED RAIL JOINT

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

** Prior to diamond grinding.

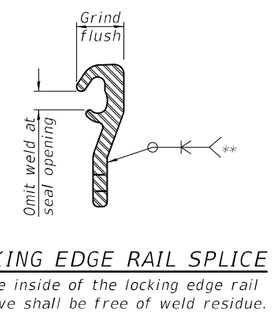


ROLLED
(EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	162

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PREFORMED JOINT STRIP SEAL
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 11 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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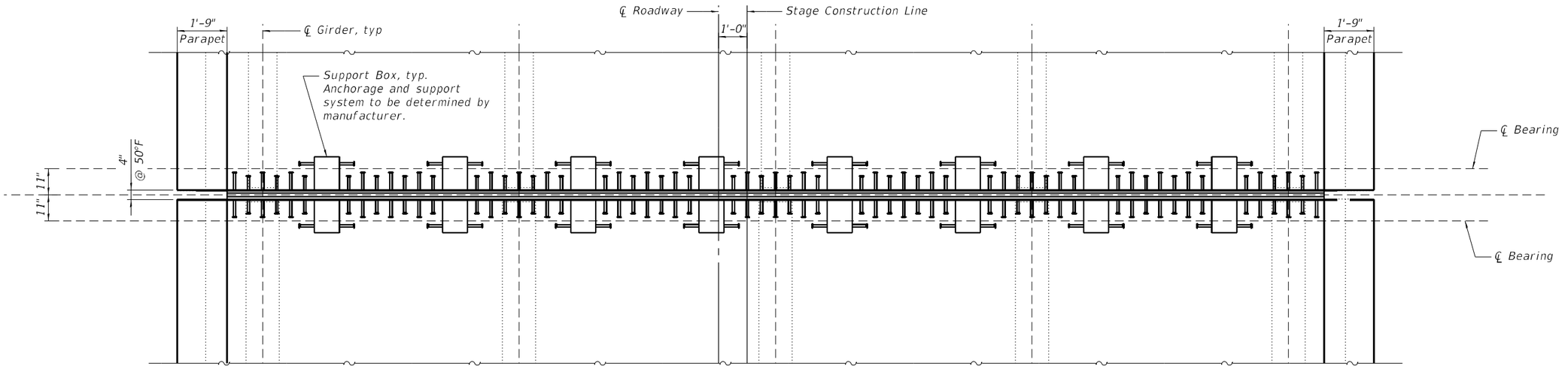
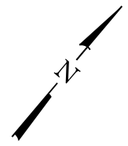
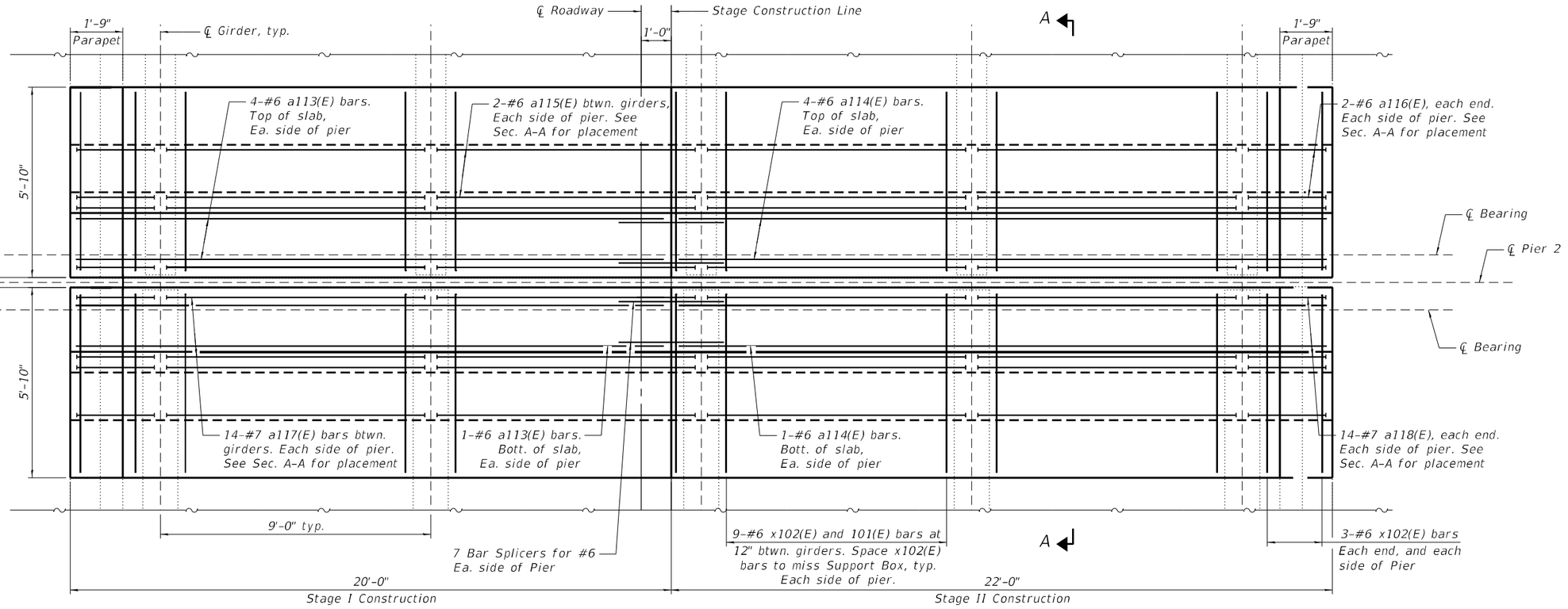
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



PIER 2 – PLAN

(Showing modular joint)





PIER 2 – PLAN

(Showing reinforcement)

Notes:
1. See sheet 13 of 49 for Section A-A.
2. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

FILE NAME: L:\IDOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\012 0029-0030 Modular Expansion Joint Details - I.dgn

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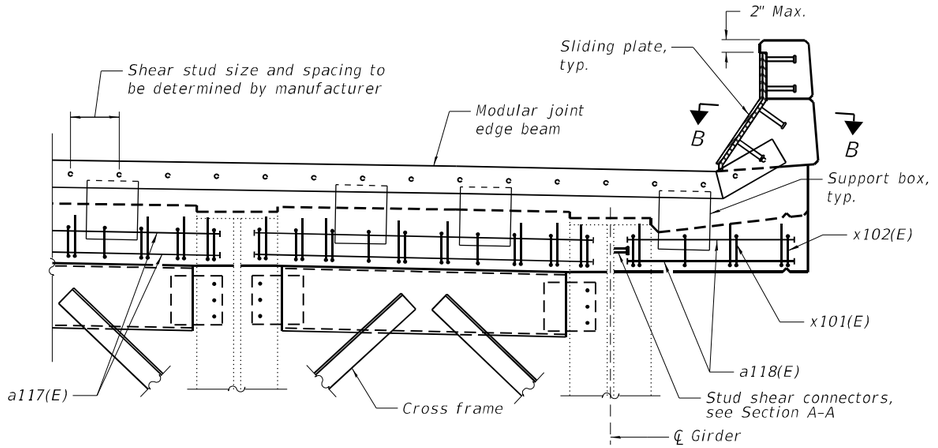
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

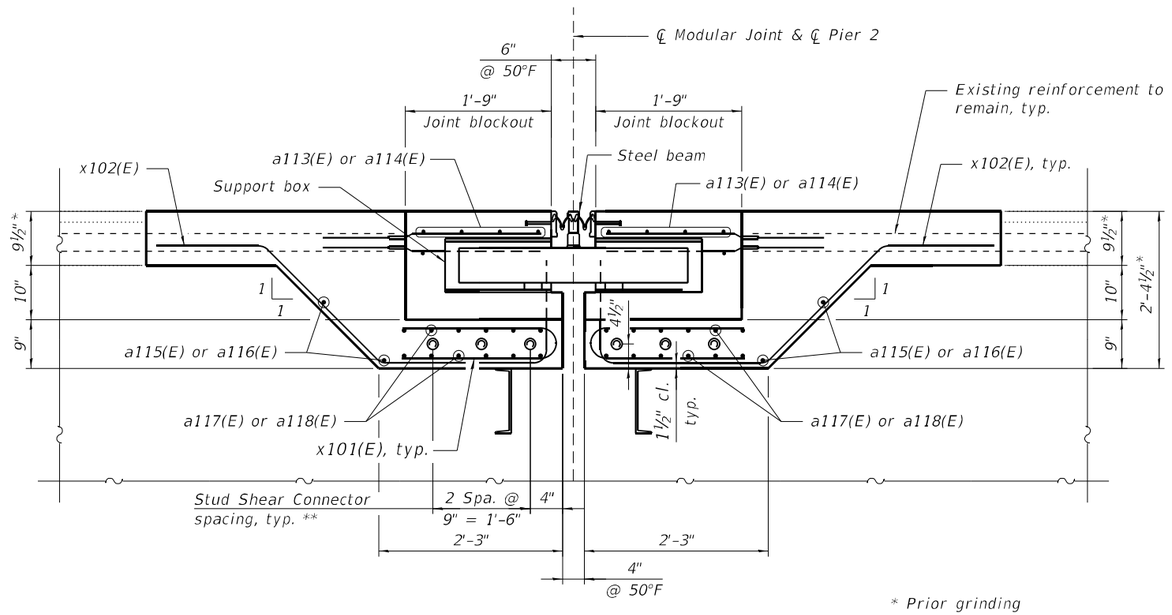
MODULAR EXPANSION JOINT DETAILS – I
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 12 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	93
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



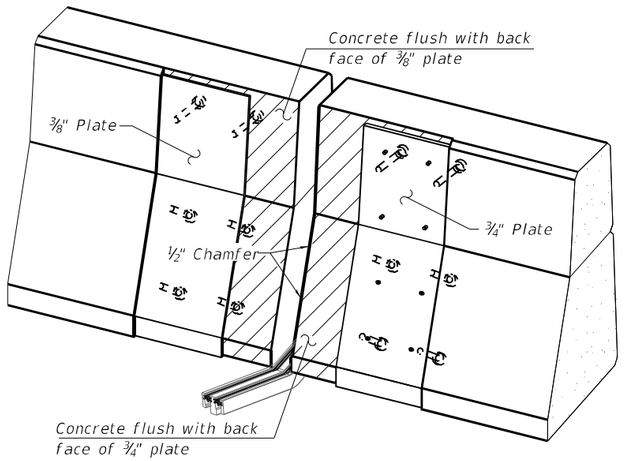
TYPICAL SECTION THRU PARAPET



SECTION A-A

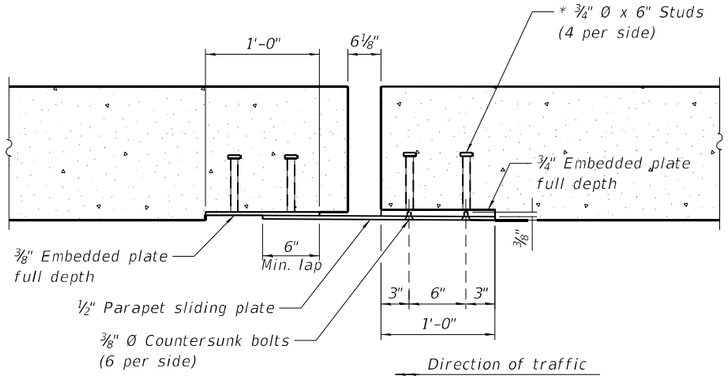
* Prior grinding

** Stud Shear Connectors on outside faces of fascia girders only.

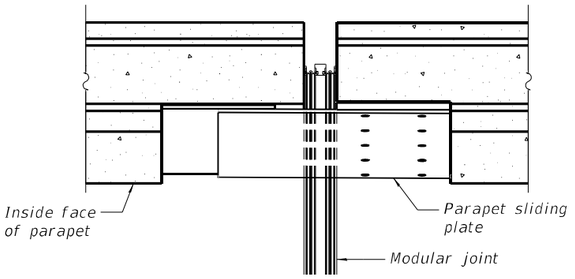


TRIMETRIC VIEW

(Showing embedded plates only)



SECTION B-B



PLAN AT PARAPET

BILL OF MATERIAL

Item	Unit	Quantity
Modular Expansion Joint, 6"	Foot	82
Stud Shear Connectors	Each	24

Notes:

1. See sheets 7 and 8 of 49 for parapet dimensions.
2. For bar details, bar list, and the associated Bills of Material, see sheet 10 of 49.
3. Cost of sliding plates, embedded plates, and anchorage studs included with Modular Expansion Joint, 6".
4. The manufacturer's recommended installation methods shall be followed.
5. Prior to palcement of the joint blockouts, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.
6. Support box(es) to miss existing girders.

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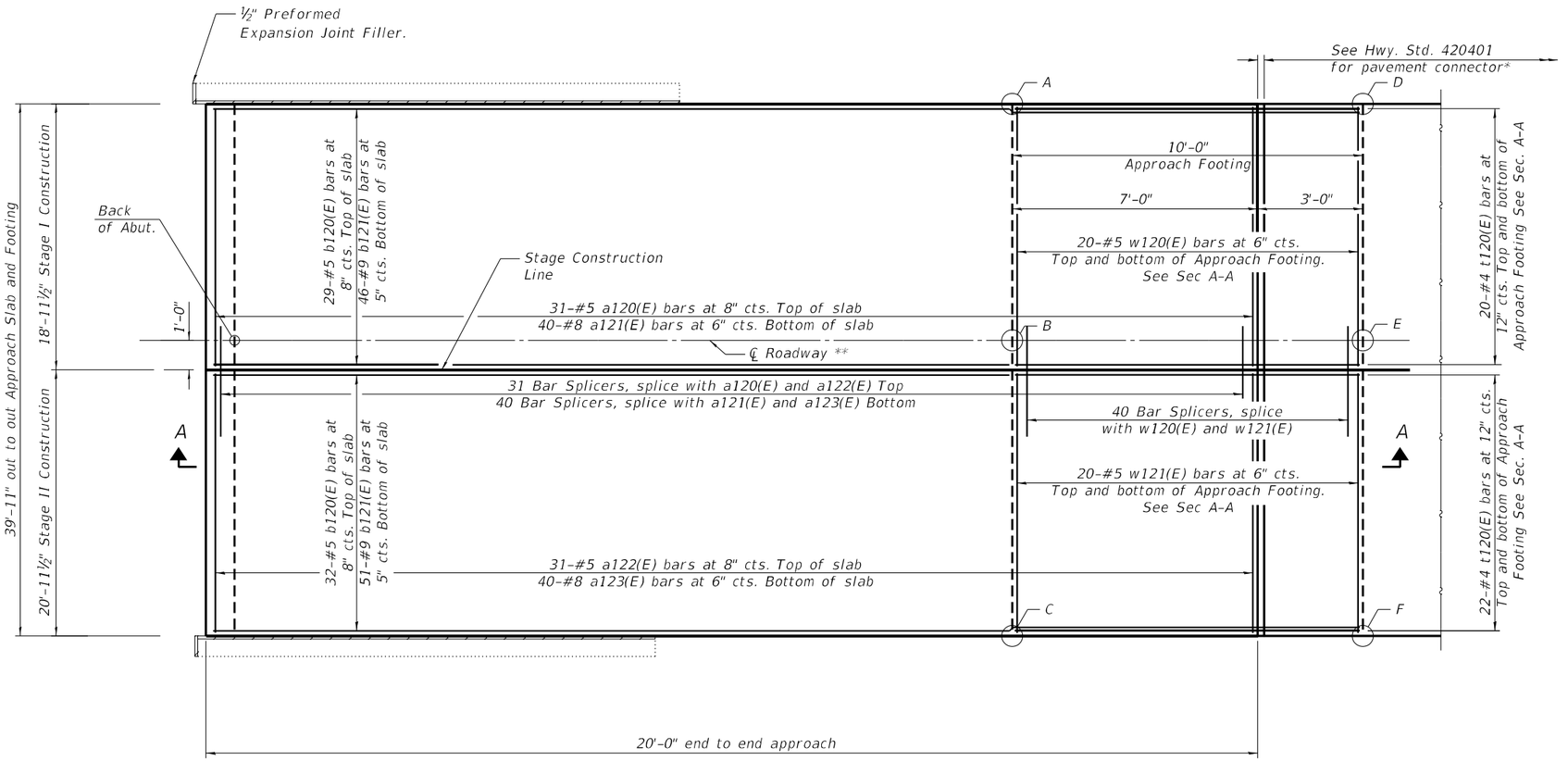
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT DETAILS – II
SN 044–0029 (E.B.) & 0030 (W.B.)

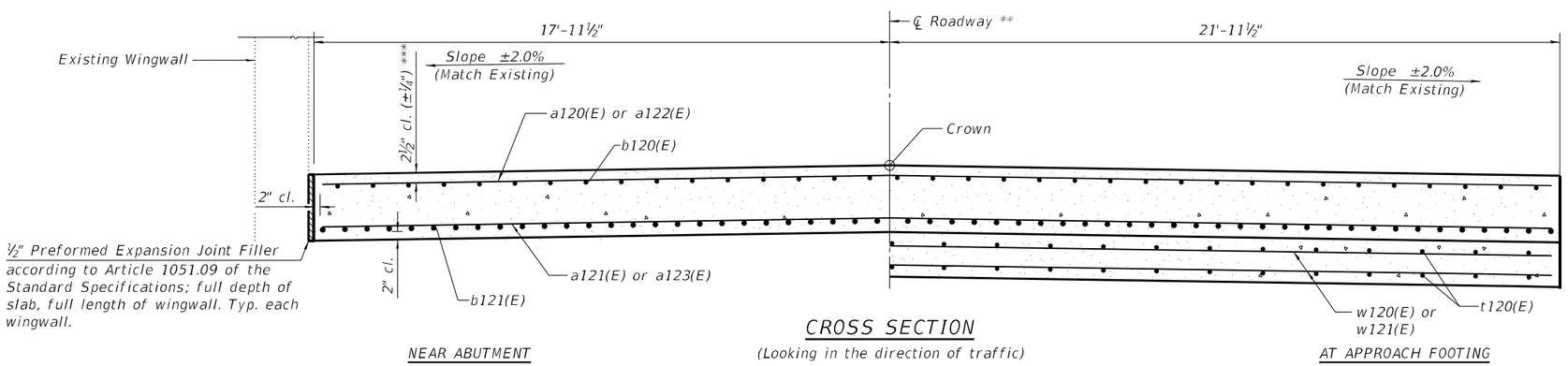
SCALE: | SHEET 13 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	94
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



PLAN

SN 044-0029 east approach slab shown; SN 044-0029 west approach slab similar
SN 044-0030 west approach slab shown; SN 044-0030 east approach slab similar



NEAR ABUTMENT

CROSS SECTION

(Looking in the direction of traffic)

AT APPROACH FOOTING

* Pavement connector shall be paid for as Bridge Approach Pavement Connector (Special). The pavement connector shall be constructed per Hwy. Std. 420401 except that the 15'-0" length shall be 20'-0". See special provision for additional details.

** Due to roadway curvature, approximate location shown.

*** Prior to grinding

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

S.N. 044-0029					
West Approach			East Approach		
Point	Top	Bottom	Point	Top	Bottom
A			A		
B			B		
C			C		
D			D		
E			E		
F			F		

S.N. 044-0030					
West Approach			East Approach		
Point	Top	Bottom	Point	Top	Bottom
A			A		
B			B		
C			C		
D			D		
E			E		
F			F		

The approach slab shall be placed to match existing elevations. The Contractor shall place the approach footing for the approach slabs to match existing elevations at grade. Adjustments for settlement of existing approach slabs shall be made as directed by the Engineer. Blank tables included for field notation.

See Section A-A on Sheet 15 of 49.

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\014 0029-0030 Approach Slab Plan.dgn

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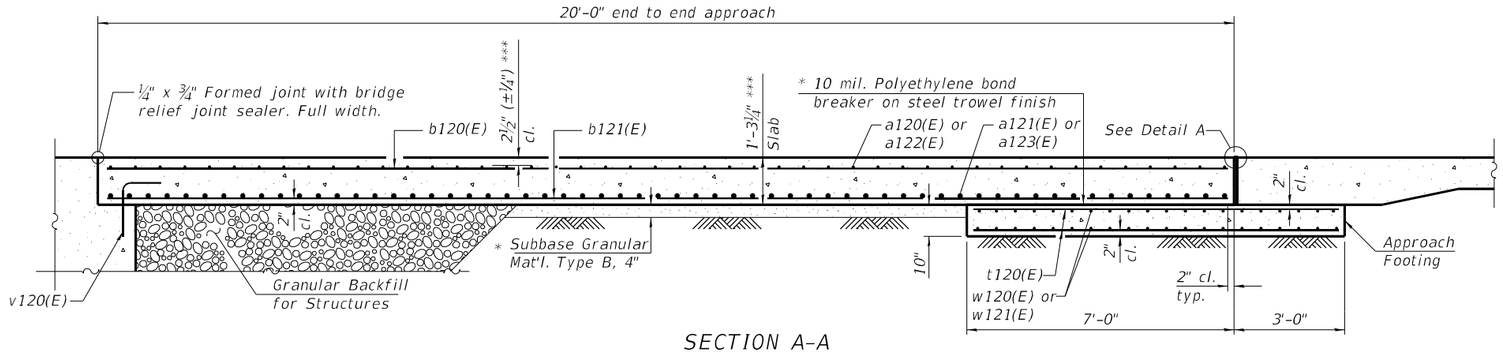
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB PLAN
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 14 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	95
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

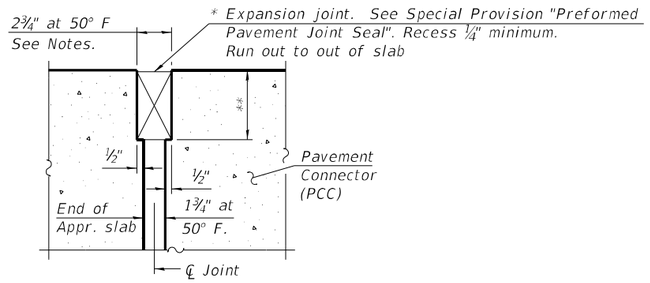


SECTION A-A

Notes:
1. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
2. Approach footing concrete shall be paid for as Concrete Structures.
3. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
4. Cost of excavation for approach footing included with Concrete Structures.
5. For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 49.

FOUR APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a120(E)	124	#5	18'-8"	
a121(E)	160	#8	18'-8"	
a122(E)	124	#5	20'-8"	
a123(E)	160	#8	20'-8"	
b120(E)	244	#5	19'-8"	
b121(E)	388	#9	19'-8"	
t120(E)	168	#4	9'-8"	
w120(E)	160	#5	18'-8"	
w121(E)	160	#5	20'-8"	
Concrete Superstructure (Approach Slab)			Cu. Yd.	150.4
Concrete Structures			Cu. Yd.	49.40
Reinforcement Bars, Epoxy Coated			Pound	60,480
Bar Splicers			Each	444



DETAIL A
(at Rt. ℄'s)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding.

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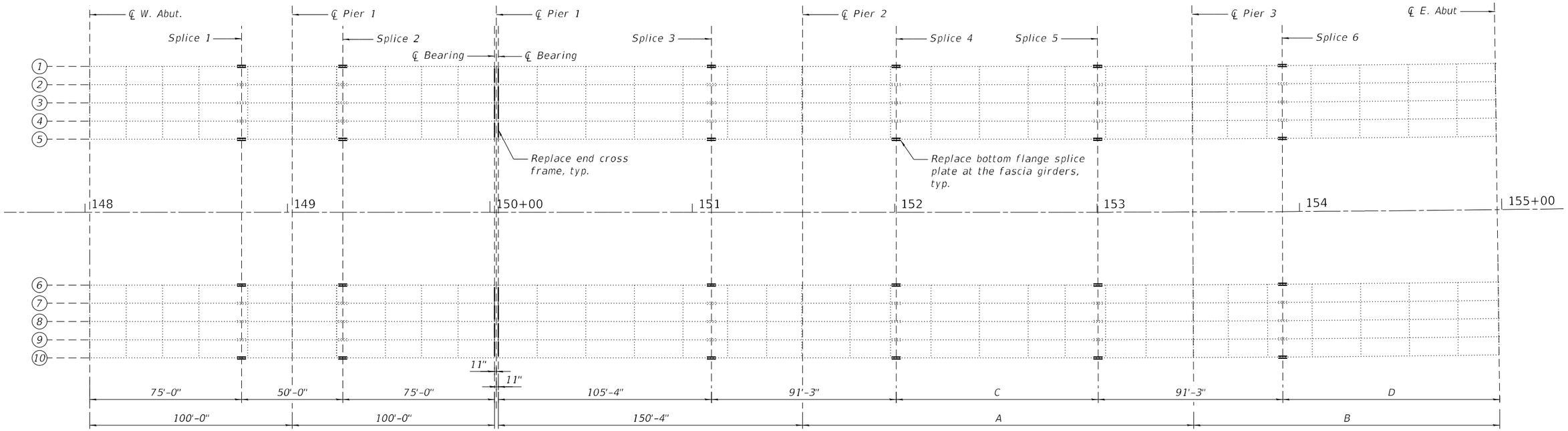
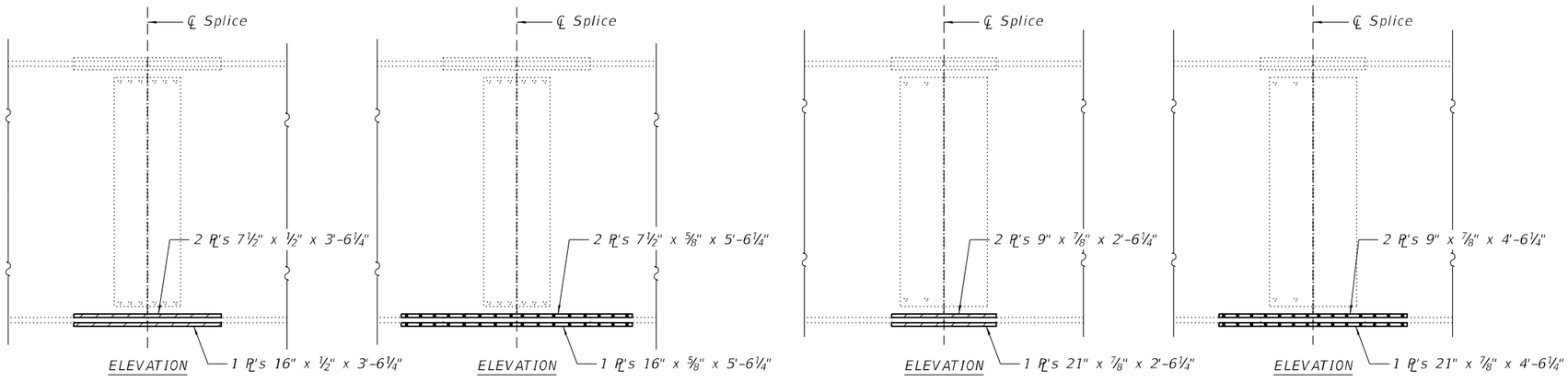
APPROACH SLAB DETAILS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 15 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	96
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



FRAMING PLAN



FIELD SPLICE 1 & 2
(Showing Removal)

FIELD SPLICE 1 & 2

FIELD SPLICE 3 THRU 6
(Showing Removal)

FIELD SPLICE 3 THRU 6

LEGEND

- ∴ Existing bolt
- ∘ Replace existing bolt with new bolt in existing hole (holes in new material may be field drilled using existing member as a template).
- • New bolts and holes field drilled into flange. Holes in new material may be field drilled or drilled in the shop.

Notes:
1. All new structural steel shown on this sheet shall be paid for as Furnishing and Erecting Structural Steel, unless otherwise noted.
2. Existing bolt layout shown is approximate. Existing fastener dimensions shall be field measured.
3. All girder splice connections on this sheet are primary connections.

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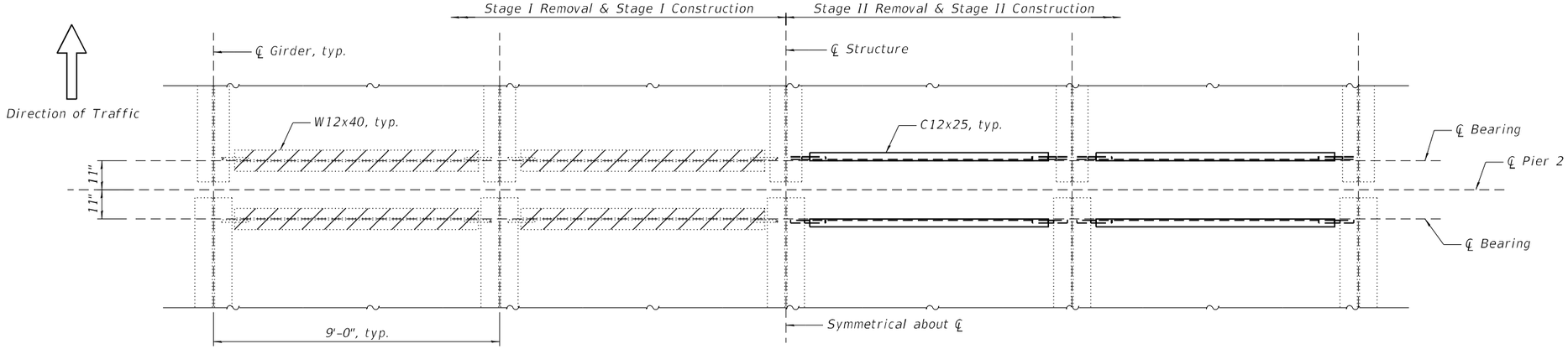
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR DETAILS – I
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 16 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	97
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



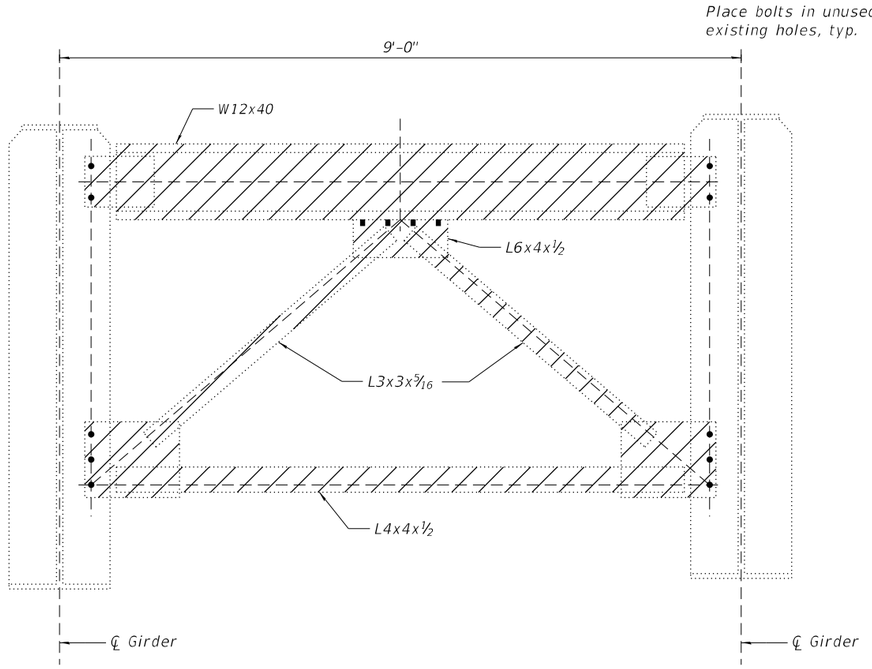
STRUCTURAL STEEL REMOVAL

STRUCTURAL STEEL REPLACEMENT

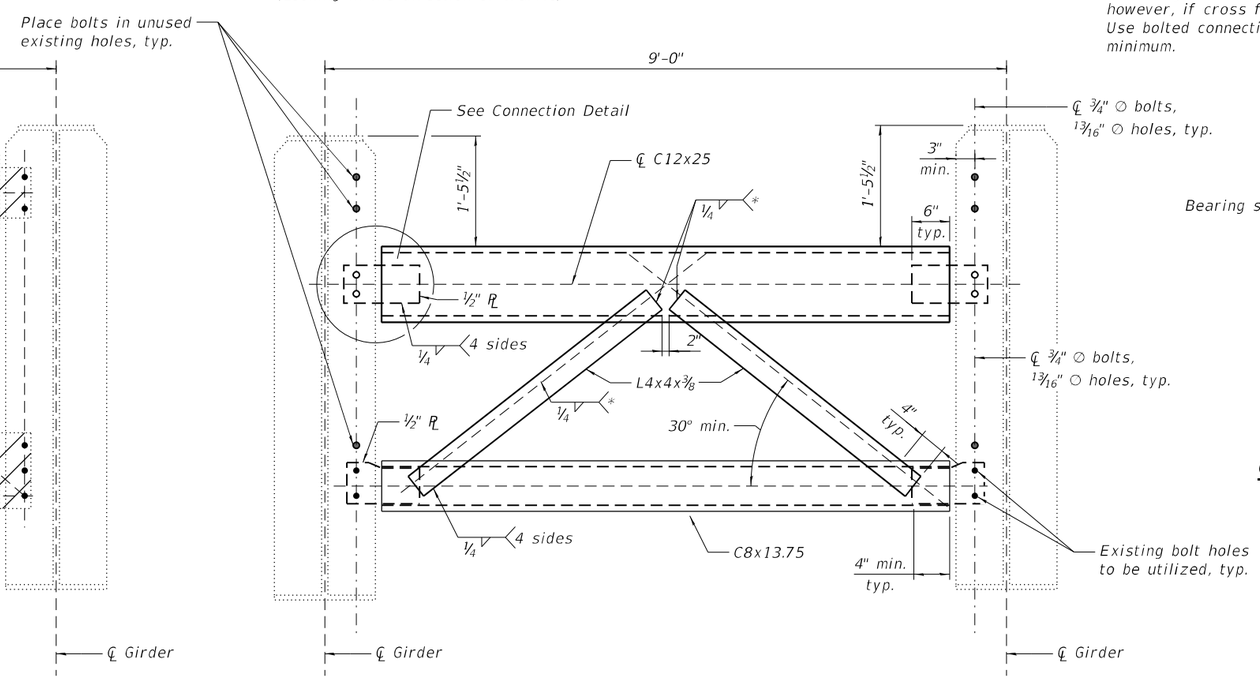
PLAN

(Looking in the direction of traffic)

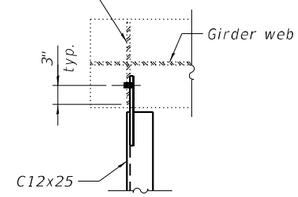
* Weld angles along 3 sides on one face of the channel; however, if cross frames are galvanized, weld all around. Use bolted connections for stage construction, 2 bolts minimum.



EXISTING END CROSS FRAME – PIER 2
STRUCTURAL STEEL REMOVAL DETAIL



END CROSS FRAME – PIER 2
STRUCTURAL STEEL REPLACEMENT DETAIL



CONNECTION DETAIL

LEGEND

Concrete Removal

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing and Erecting Structural Steel	Pound	19,860
Structural Steel Removal	Pound	14,100
Temporary Support System	Each	24

Notes:
1. All new structural steel shown on this sheet shall be paid for as Furnishing and Erecting Structural Steel, unless otherwise noted.
2. Two hardened washers required for each set of oversized holes.
3. No field welding is permitted except as specified in the contract documents.
4. Verify in the field all dimensions, including existing bolt hole locations to be utilized.

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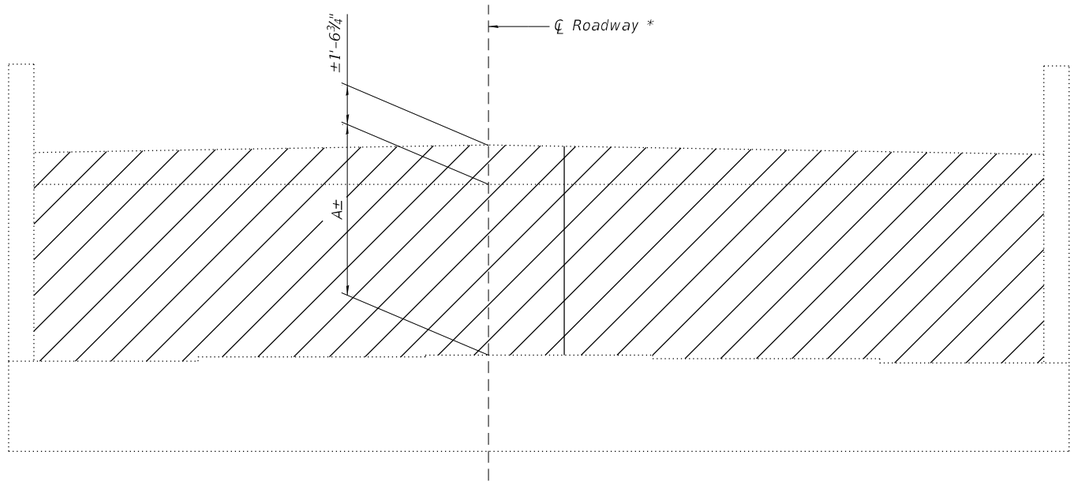
STRUCTURAL STEEL REPAIR DETAILS – II
SN 044–0029 (E.B.) & 0030 (W.B.)

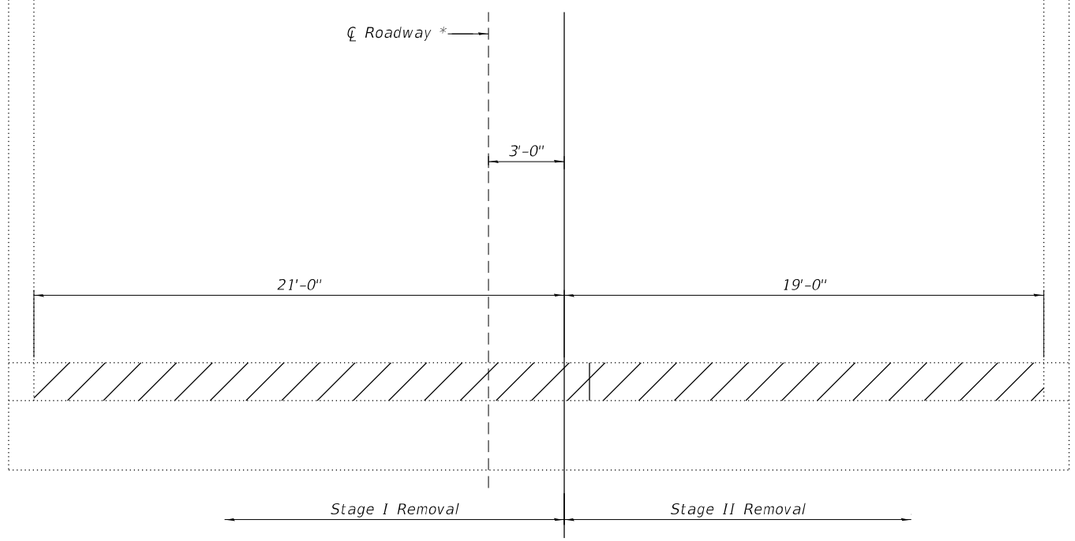
SCALE: | SHEET 17 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	98
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar

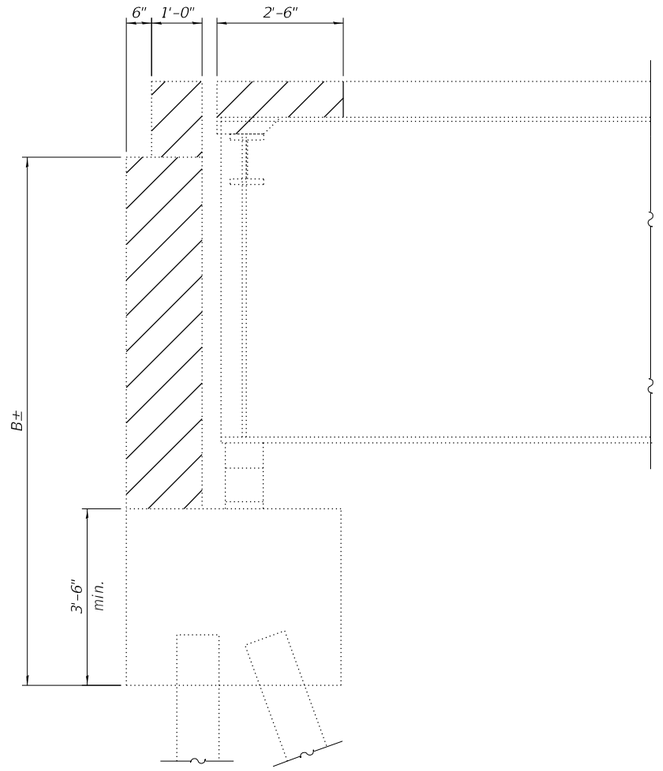


PLAN

SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar

* *Due to road curvature, approximated location shown for East Abutments.*

Location	Dim. A	Dim. B
044-0029 - West Abutment	7'-0⅞"	10'-6⅞"
044-0029 - East Abutment	7'-0⅞"	10'-6⅞"
044-0030 - West Abutment	7'-3"	10'-9"
044-0030 - East Abutment	7'-0⅞"	10'-6⅞"



SECTION THRU ABUTMENT

FOUR ABUTMENTS BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	77.9

LEGEND

Concrete Removal

Note:
1. Concrete Removal quantity for deck concrete included in Bill of Material on sheet 10 of 49.

FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\0018 0029-0030 Abutment Removal.dgn

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ABUTMENT REMOVAL
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 18 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 78912		
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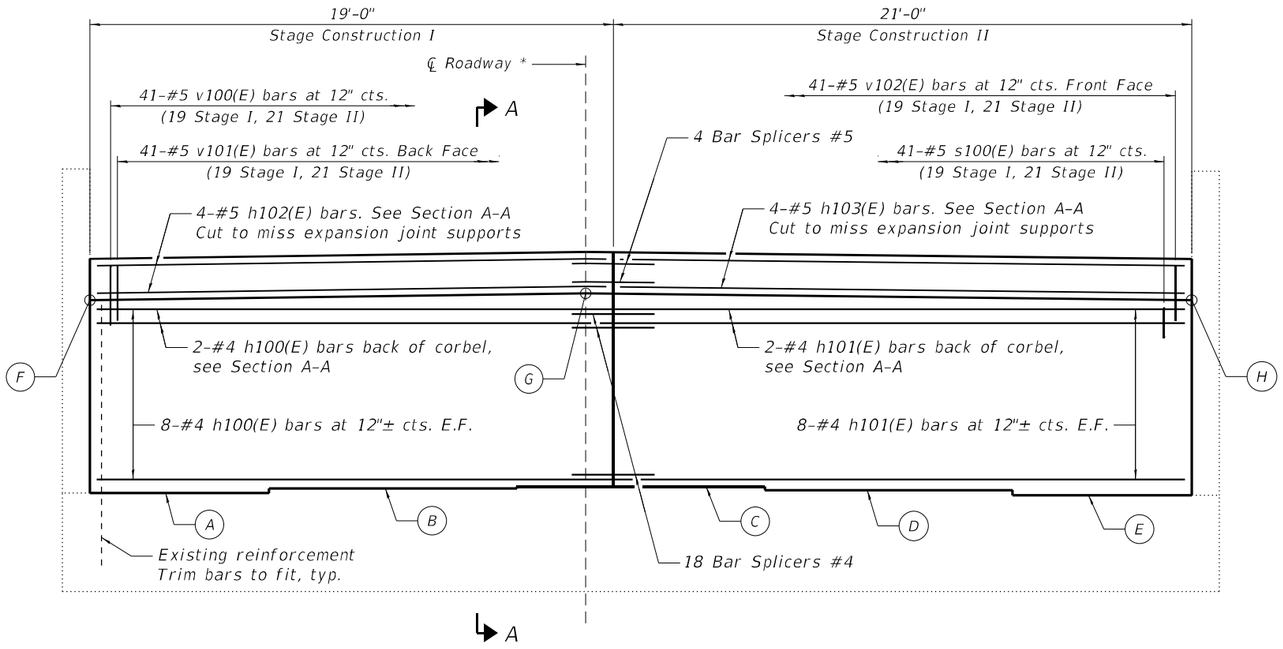


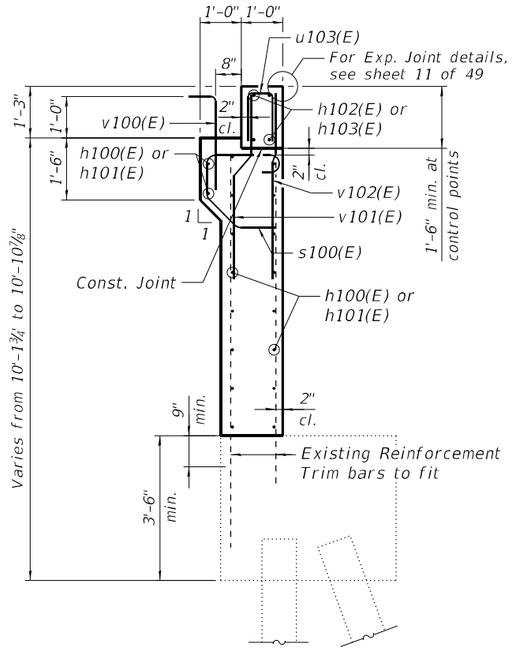
ELEVATION

SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar

Location	A	B	C	D	E	F**	G**	H**
044-0029 - West Abutment	591.88	592.06	592.20	592.13	591.96	598.72	599.10	598.80
044-0029 - East Abutment	588.53	588.69	588.77	588.63	588.44	595.54	595.84	595.46
044-0030 - West Abutment	591.96	592.13	592.20	592.06	591.88	598.80	599.10	598.72
044-0030 - East Abutment	588.44	588.63	588.77	588.69	588.53	595.46	595.84	595.54

Elevations are based on existing plans and are provided as a reference point. Actual elevations and dimensions in the field may vary.

*** Control Points*



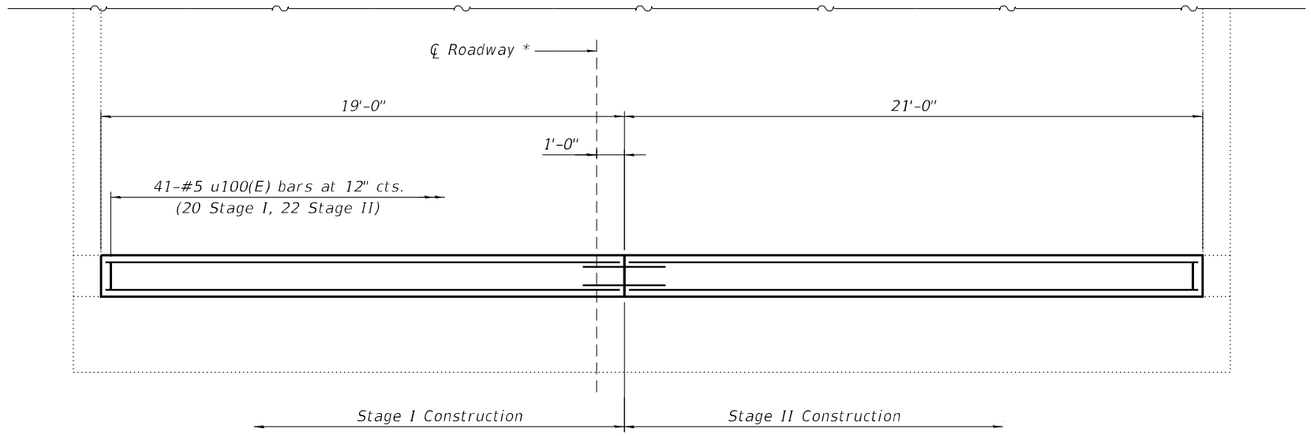
FOUR ABUTMENTS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	72	#4	18'-8"	
h101(E)	72	#4	20'-8"	
h102(E)	16	#5	18'-8"	
h103(E)	16	#5	20'-8"	
s100(E)	164	#5	5'-0"	
u100(E)	164	#5	3'-0"	
v100(E)	164	#5	3'-1"	
v101(E)	164	#5	4'-9"	
v102(E)	164	#5	4'-8"	
Concrete Structures			Cu. Yd.	68.1
Reinforcement Bars, Epoxy Coated			Pound	6,060
Bar Splicers			Each	88

MIN. LAP

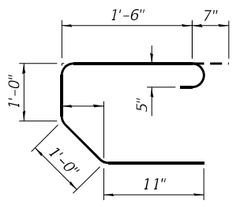
#5 bar = 3'-4"

SECTION A-A

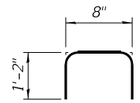


PLAN

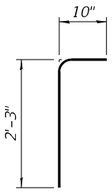
SN 044-0029 west abutment shown, SN 044-0029 east abutment similar
SN 044-0030 east abutment shown, SN 044-0030 west abutment similar



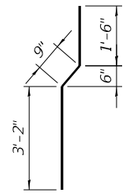
BAR s100(E)



BAR u100(E)



BAR v100(E)



BAR v101(E)

** Due to road curvature, approximated location shown for East Abutments.*

Note:
1. *Existing vertical reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing vertical reinforcement may be cut and removed. Any reinforcement bars to remain which are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.*
2. *Hatchblock is being paid as Concrete Superstructures.*

FILE NAME: L:\IDOT\190661\0\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\0019 0029-0030 Abutment Details.dgn

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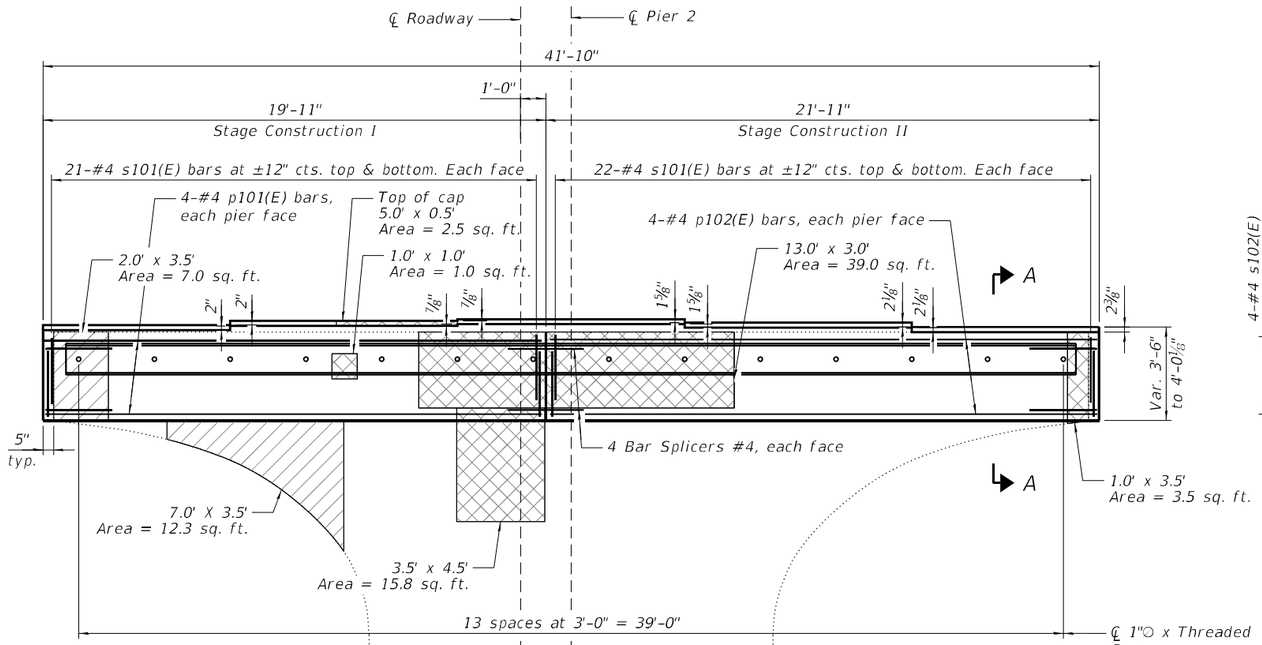
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
SN 044-0029 (E.B.) & 0030 (W.B.)

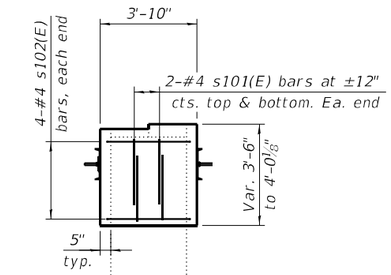
SCALE: | SHEET 19 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	100
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			



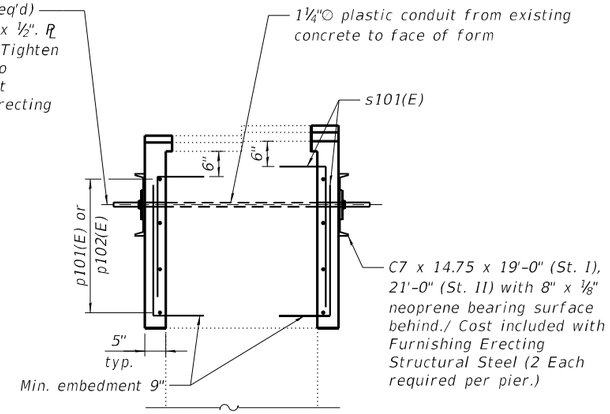
ELEVATION

(East face shown, west face shown similar)

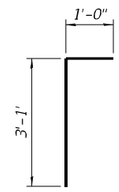


END VIEW

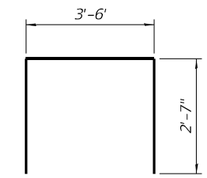
(North end shown, south end similar)



SECTION A-A



BAR s101(E)



BAR s102(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p101(E)	16	#4	19'-7"	———
p102(E)	16	#4	21'-7"	———
s101(E)	360	#4	4'-1"	⌐
s102(E)	16	#4	8'-8"	⊓
Concrete Structures			Cu. Yd.	5.2
Furnishing and Erecting Structural Steel			Pound	1,210
Reinforcement Bars, Epoxy Coated			Pound	760
Bar Splicers			Each	16
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)			Sq. Ft.	82
Structural Repair of Concrete (Depth Greater than 5 Inches)			Sq. Ft.	20

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)

Structural Repair of Concrete (Depth Greater than 5 Inches)

MIN. LAP

#4 bar = 2'-7"

Notes:

1. All structural reinforcement bars extending into removal area shall be cleaned straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Structures.
2. All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
3. Areas of repair shown are estimated. The Engineer shall show actual locations of the repairs on As-Built Plans.
4. All Structural Steel shall be Hot Dipped Galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel.
5. Self-consolidating concrete shall be used throughout.

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\0020 0029-0030 Pier 2 Repairs SN 044-0029.dgn

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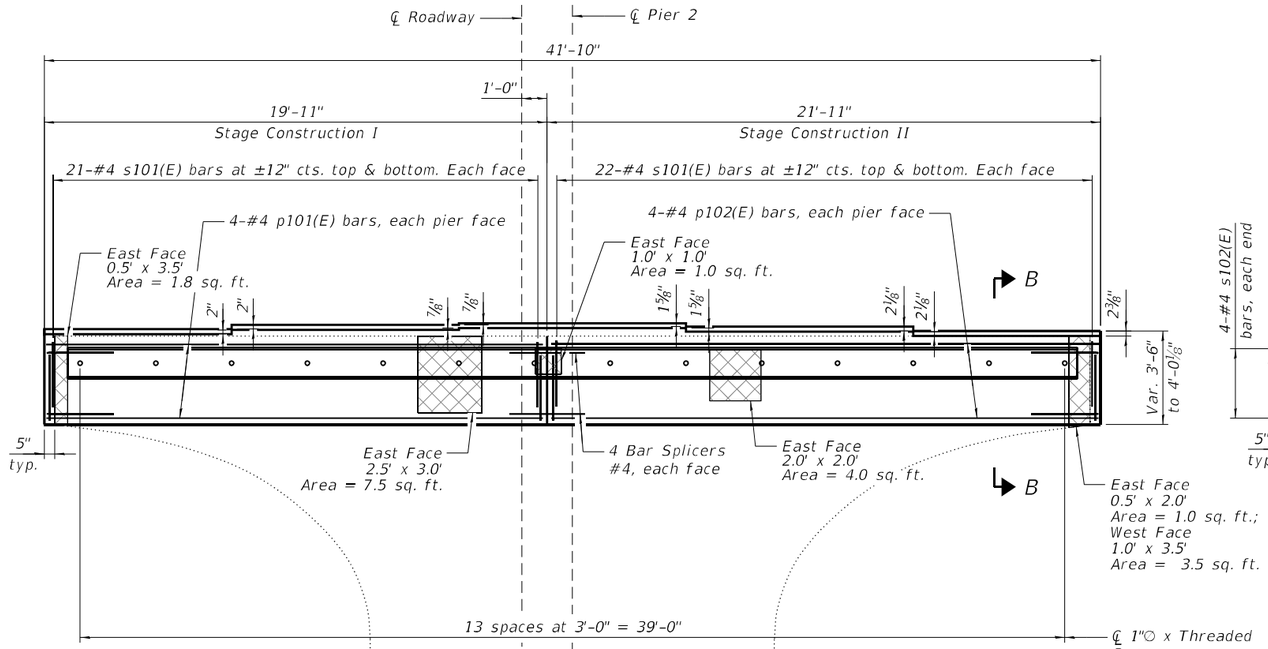
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REPAIRS SN 044-0029
SN 044-0029 (E.B.) & 0030 (W.B.)

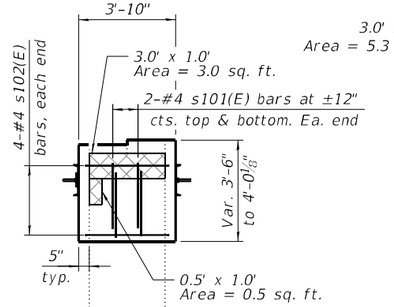
SCALE: | SHEET 20 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	101
		CONTRACT NO. 78912		
ILLINOIS	FED. AID PROJECT			



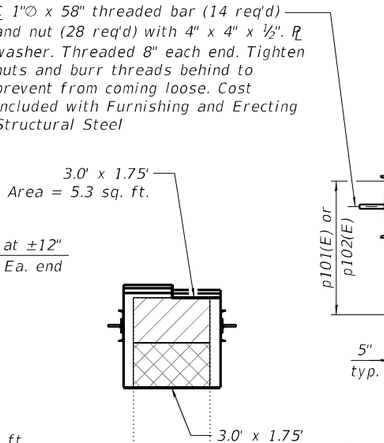
ELEVATION

(West face shown, east face similar)



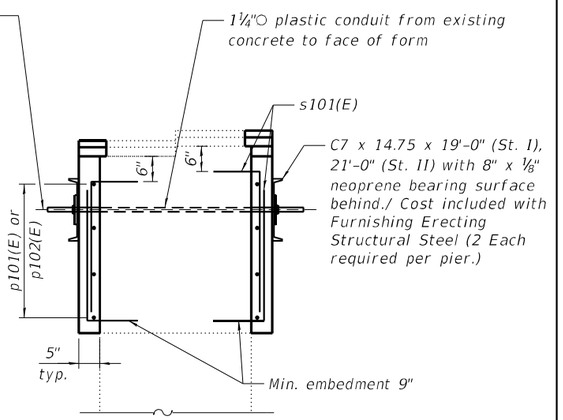
END VIEW

(North end)

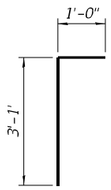


END VIEW

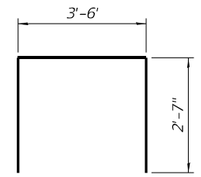
(South End)



SECTION B-B



BAR s101(E)



BAR s101(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p101(E)	16	#4	19'-7"	——
p102(E)	16	#4	21'-7"	——
s101(E)	360	#4	4'-1"	⌐
s102(E)	16	#4	8'-8"	⊓
Concrete Structures			Cu. Yd.	5.2
Furnishing and Erecting Structural Steel			Pound	1,210
Reinforcement Bars, Epoxy Coated			Pound	760
Bar Splicers			Each	16
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)			Sq. Ft.	28
Structural Repair of Concrete (Depth Greater than 5 Inches)			Sq. Ft.	6

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)

Structural Repair of Concrete (Depth Greater than 5 Inches)

MIN. LAP

#4 bar = 2'-7"

Note:
1. All structural reinforcement bars extending into removal area shall be cleaned straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Structures.
2. All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
3. Areas of repair shown are estimated. The Engineer shall show actual locations of the repairs on As-Built Plans.
4. All Structural Steel shall be Hot Dipped Galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel.
5. Self-consolidating concrete shall be used throughout.

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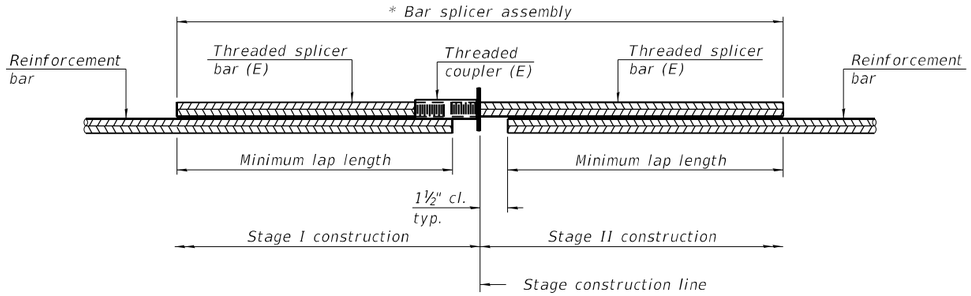
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REPAIRS SN 044-0030
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 21 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	102
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



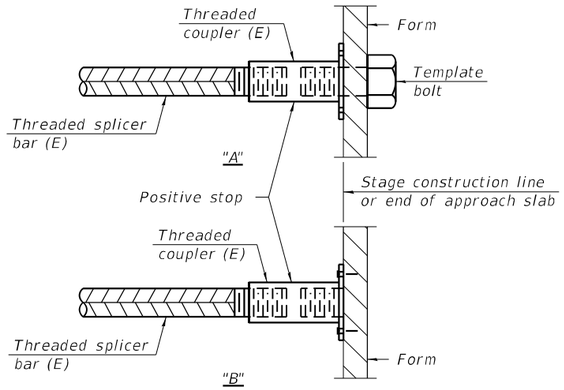
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1½" + thread length

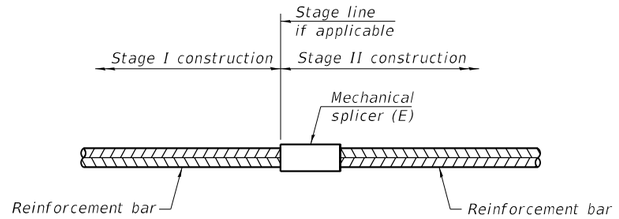
** Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.*

Location	Bar size	No. assemblies required	Minimum lap length
044-0029 W. Abut. Superstructure	#5	12	3'-6"
044-0029 W. Abut. Hatchblock	#5	4	3'-6"
044-0029 W. Abut. Backwall	#4	18	2'-11"
044-0029 E. Abut. Superstructure	#5	12	3'-6"
044-0029 E. Abut. Hatchblock	#5	4	3'-6"
044-0029 E. Abut. Backwall	#4	18	2'-11"
044-0029 Pier 2 Superstructure	#5	254	3'-6"
044-0029 Pier 2 Edge Beam	#6	14	5'-0"
044-0029 Pier 2 Pier Cap	#4	8	2'-11"
044-0029 W. Approach Slab	#5	31	3'-6"
044-0029 W. Approach Slab	#8	40	4'-9"
044-0029 W. Approach Slab Footing	#5	40	3'-6"
044-0029 E. Approach Slab	#5	31	3'-6"
044-0029 E. Approach Slab	#8	40	4'-9"
044-0029 E. Approach Slab Footing	#5	40	3'-6"
044-0030 W. Abut. Superstructure	#5	12	3'-6"
044-0030 W. Abut. Hatchblock	#5	4	3'-6"
044-0030 W. Abut. Backwall	#4	18	2'-11"
044-0030 E. Abut. Superstructure	#5	12	3'-6"
044-0030 E. Abut. Hatchblock	#5	4	3'-6"
044-0030 E. Abut. Backwall	#4	18	2'-11"
044-0030 Pier 2 Superstructure	#5	254	3'-6"
044-0030 Pier 2 Edge Beam	#6	14	5'-0"
044-0030 Pier 2 Pier Cap	#4	8	2'-11"
044-0030 W. Approach Slab	#5	31	3'-6"
044-0030 W. Approach Slab	#8	40	4'-9"
044-0030 W. Approach Slab Footing	#5	40	3'-6"
044-0030 E. Approach Slab	#5	31	3'-6"
044-0030 E. Approach Slab	#8	40	4'-9"
044-0030 E. Approach Slab Footing	#5	40	3'-6"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

1. *Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.*
2. *All reinforcement shall be lapped and tied to the splicer bars.*
3. *Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.*
4. *See approved list of bar splicer assemblies and mechanical splicers for alternatives.*

BSD-1 1-1-2020

FILE NAME: L:\IDOT\190610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\022 0029-0030 Bar Splicer Assembly and Mechanical Splicer Details.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 22 OF 49 SHEETS | STA. | TO STA.

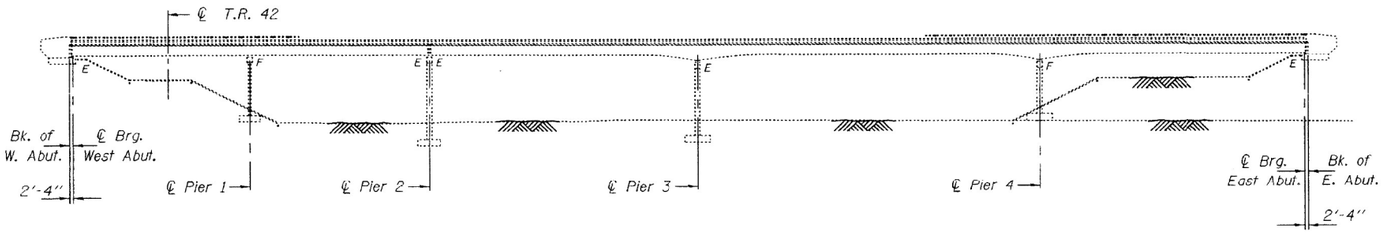
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	103
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		JOHNSON		148A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
2 SHEETS

CONTRACT NO. 98758

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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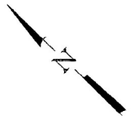

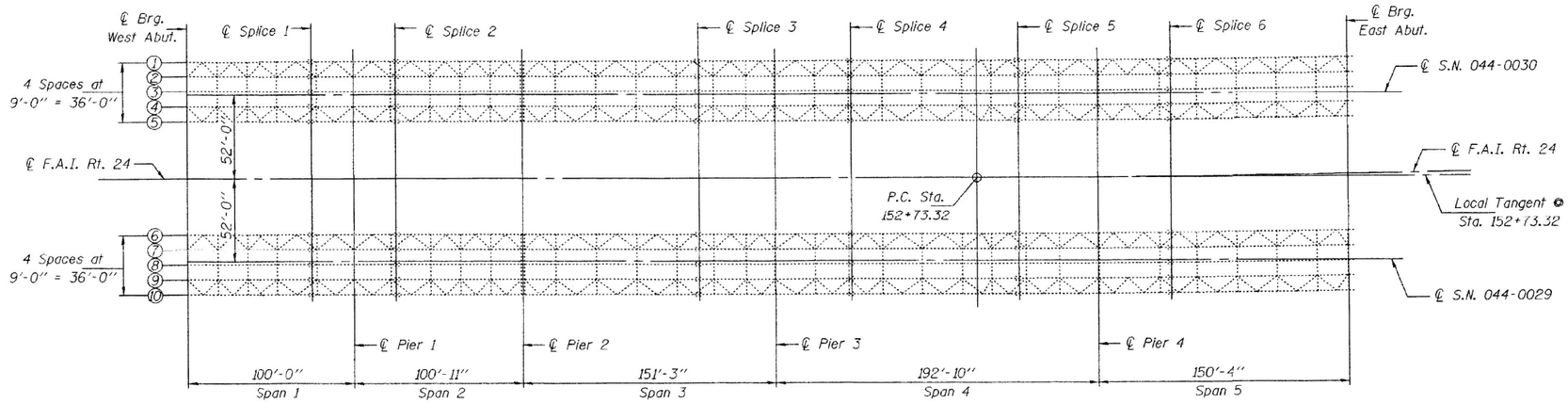

FRAMING PLAN

GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Surfaces of existing steel exposed down to bare metal as a result of the modification work shall be spot cleaned and painted with an aluminum epoxy mastic according to Article 506.05 of the Std. Specs. The cost of this work shall be included with Stiffener Intersection Modification

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stiffener Intersection Modification	Each	40

DESIGNED	Alvian T. Holloway
CHECKED	Jeffrey S. Barker
DRAWN	D.Herbert
CHECKED	A.T.H. JSB

EXAMINED JANUARY 14, 2005
John A. Morris
ENGINEER OF STRUCTURAL SERVICES

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH E. ANDERSON
061-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER

Expires 11-30-06

FOR INFORMATION ONLY

FRAMING PLAN & ELEVATION
F.A.I. RT. 24
JOHNSON COUNTY
S.N. 044-0029 (E.B.) &
S.N. 044-0030 (W.B.)

FILE NAME: L:\DOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\023 0029-0030 Existing Plans.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 23 OF 49 SHEETS | STA. | TO STA.

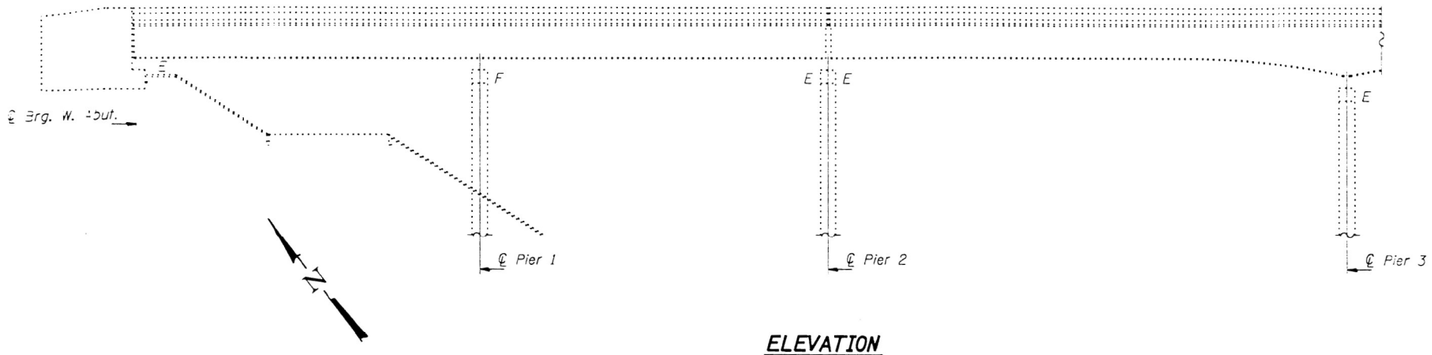
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	104
		CONTRACT NO.	78912	
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

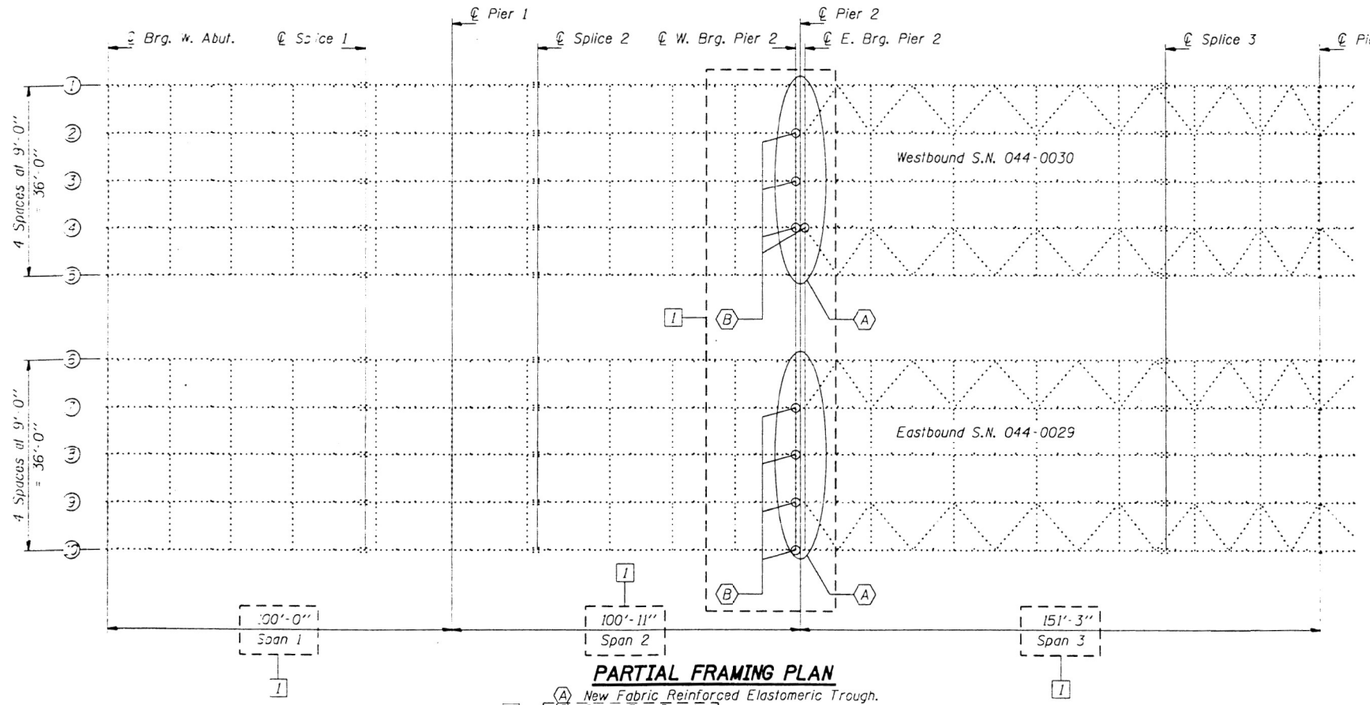
F.A.I. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	JOHNSON	20	18
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1
3 SHEETS

* BSMART FY 2001-3



ELEVATION



PARTIAL FRAMING PLAN

1 — (A) New Fabric Reinforced Elastomeric Trough.
1 — (B) Beam End Repairs.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$"ϕ, open holes $\frac{13}{16}$"ϕ, unless otherwise noted.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type I. Cost included with Furnishing and Erecting Structural Steel.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

Cost of field drilling holes required for installing the steel members is included with Furnishing and Erecting Structural Steel.

1 — Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY	
Furnishing and Erecting Structural Steel	Pound	9,720	1
Fabric Reinforced Elastomeric Trough	Foot	88	

DESIGNED	J.L.C.
CHECKED	D.H.T.
DRAWN	John F. Schneller Jr.
CHECKED	J.L.C. D.H.T.

NOVEMBER 3. 2000
EXAMINED John A. Morris
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

FOR INFORMATION ONLY

PLAN & ELEVATION
F.A.I. RTE. 24
JOHNSON COUNTY
S.N. 044-0029 & 044-0030

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)
SCALE: | SHEET 24 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	105
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

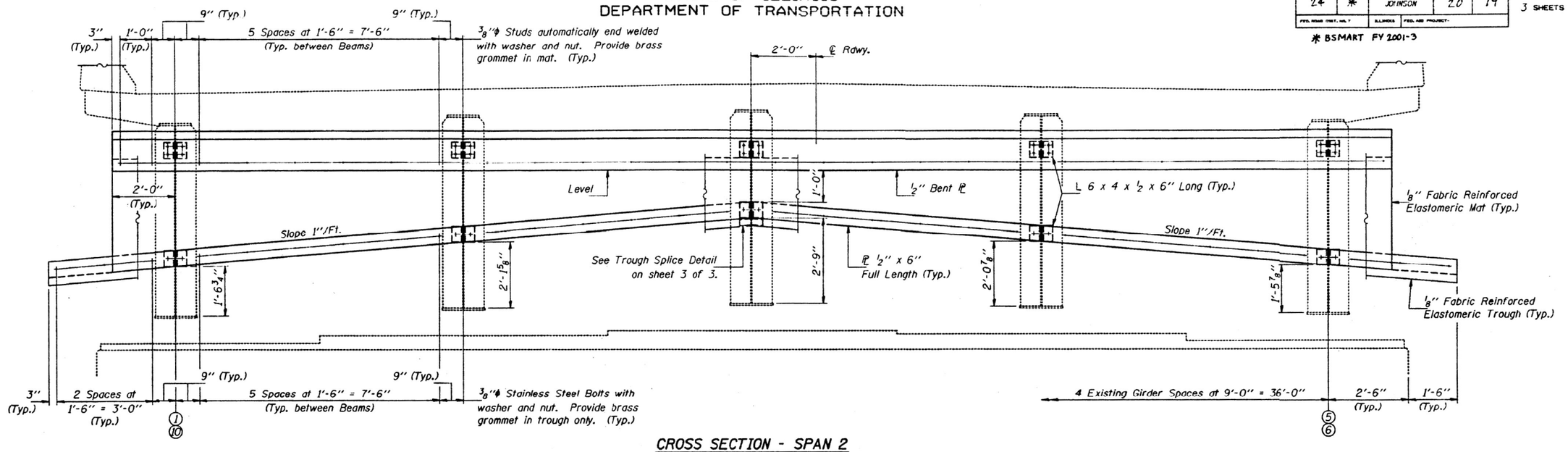
FILE NAME: L:\DOT\190610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\024 0029-0030 Existing Plans.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	JOHNSON	20	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

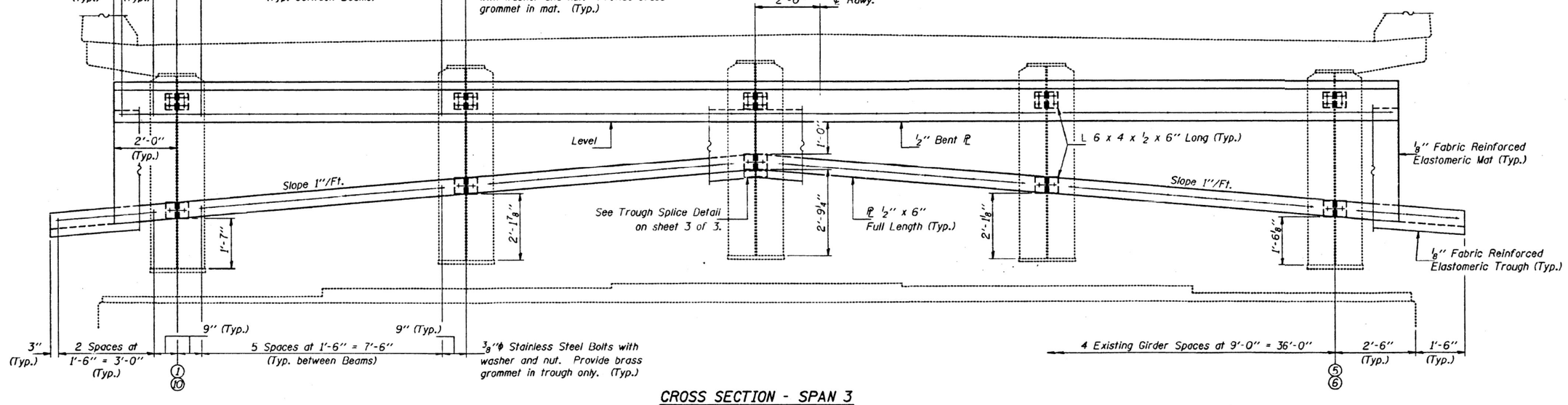
SHEET NO. 2
3 SHEETS

* BSMART FY 2001-3



CROSS SECTION - SPAN 2

(W.B. Lanes. Girders 1-5 Looking East)
(E.B. Lanes. Girders 6-10 Looking West)



CROSS SECTION - SPAN 3

(W.B. Lanes. Girders 1-5 Looking East)
(E.B. Lanes. Girders 6-10 Looking West)

DESIGNED	J.L.C.
CHECKED	D.H.T.
DRAWN	John F. Schneller Jr.
CHECKED	J.L.C. D.H.T.

NOVEMBER 3, 2000
EXAMINED John A. Morris
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

FOR INFORMATION ONLY

TROUGH DETAILS - PIER 2
F.A.I. RTE. 24
JOHNSON COUNTY
S.N. 044-0029 & 044-0030

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	DRAWN - BLH	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 25 OF 49 SHEETS | STA. | TO STA.

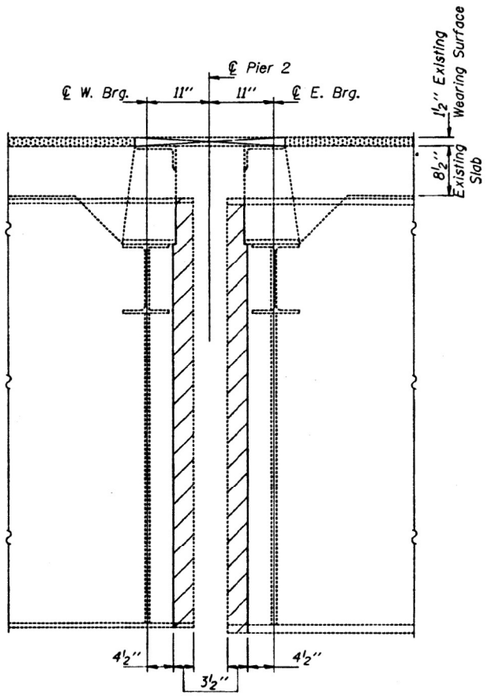
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	106
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

FAI ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	JOHNSON	20	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
3 SHEETS

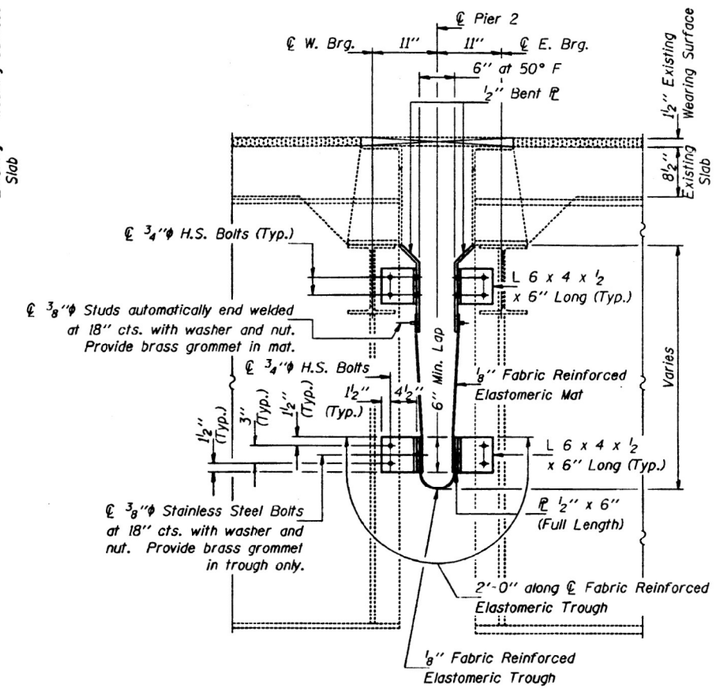
* BSMART FY 2001-3

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

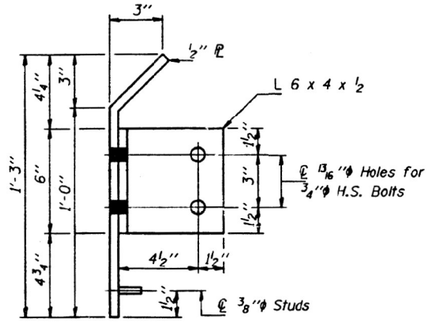


SECTION THRU JOINT
(Looking North)

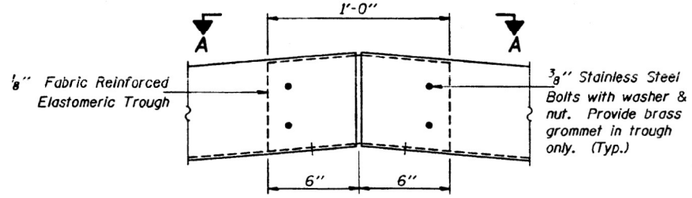
Notes:
Hatched area indicates portion of of existing girders 1 and 10 to be removed. Cost included with Furnishing and Erecting Structural Steel.



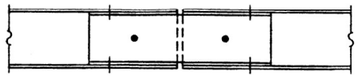
SECTION THRU JOINT
(Looking North)



BENT PLATE DETAIL



TROUGH SPLICE DETAIL



VIEW A-A

DESIGNED	J.L.C.
CHECKED	D.H.T.
DRAWN	John F. Schneller Jr.
CHECKED	J.L.C. D.H.T.

NOVEMBER 3, 2000
EXAMINED John A. Morris
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

FOR INFORMATION ONLY

TROUGH DETAILS - PIER 2
F.A.I. RTE. 24
JOHNSON COUNTY
S.N. 044-0029 & 044-0030

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)
SCALE: | SHEET 26 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	107
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	JOHNSON	20	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* BSMART FY 2001-3

GENERAL NOTES

QUANTITIES SHOWN IN THE PLANS FOR DECK PATCHING ARE ONLY ESTIMATES. THE ACTUAL AMOUNT OF PATCHING DONE SHALL BE DETERMINED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE. NOMINAL CONSTRUCTION VARIATIONS AND PLAN DETAILS WILL NOT BE CAUSE FOR ADDITION COMPENSATION. HOWEVER, THE CONTRACTOR WILL BE PAID FOR QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. EXISTING PLANS ARE AVAILABLE FOR INSPECTION AT THE DISTRICT OFFICE.

TEMPORARY PAVEMENT MARKING CONSISTS OF A 4 IN. SOLID WHITE LINE AT THE OUTSIDE EDGE OF THE STAGE II TRAFFIC LANE AND ALONG OUTSIDE EDGE OF STAGE I TRAFFIC LANE OVER BOTH BRIDGES AND SHALL BE INSTALLED AFTER STAGE I CONSTRUCTION AND PRIOR TO STAGE II TRAFFIC. REFER TO STANDARD 780001 FOR DETAILS.

THE INORGANIC ZINC-RICH PRIMER/ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF NEW STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE ACRYLIC FINISH COAT SHALL BE GRAY. MUNSELL NO. 5B 7/1. SEE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING NEW METAL STRUCTURES".

EXISTING STRUCTURAL STEEL SHALL ONLY BE CLEANED AND PAINTED AS REQUIRED BY THE SPECIAL PROVISION "CLEANING AND PAINTING ADJACENT AREAS OF EXISTING STEEL STRUCTURES". FASTENERS SHALL BE HIGH STRENGTH BOLTS.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4 IN. DIAMETER. OPEN HOLES 7/8 IN. DIAMETER. UNLESS OTHERWISE NOTED.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.

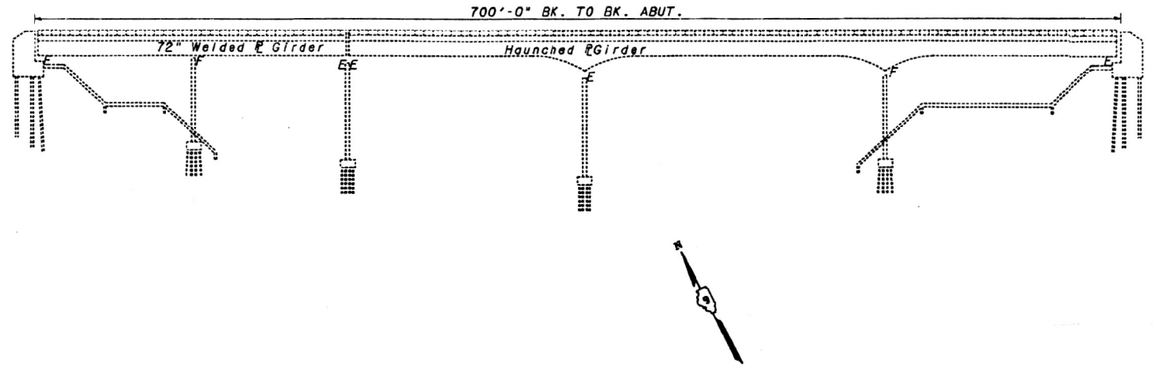
THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHOULD TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8". ADJUSTMENT SHALL BE MADE BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. (FOR TYPE I ELASTOWERC BEARINGS, TWO 1/8" ADJUSTING SHIMS SHALL BE PROVIDED FOR EACH BEARING AND PLACED AS DETAILED.

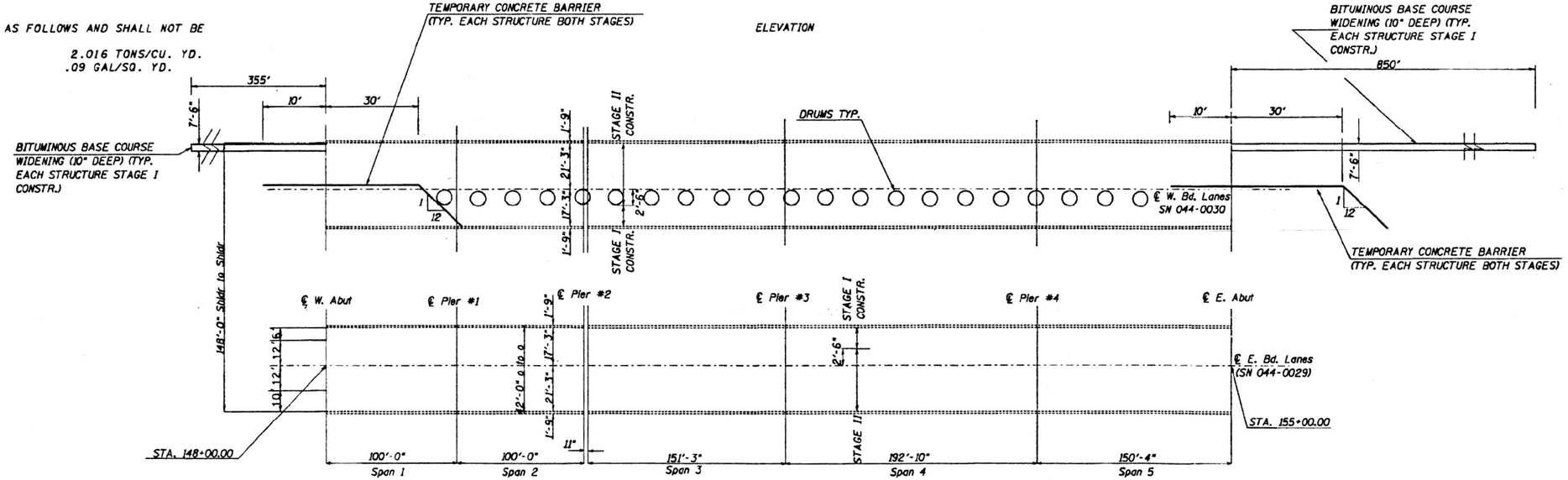
COMMITMENTS: NONE

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES.

ALL BITUMINOUS CONCRETE	2.016 TONS/CU. YD.
BITUMINOUS MATERIAL (PRIME COAT)	.09 GAL/SQ. YD.



ELEVATION



PLAN

DESIGN STRESSES
(NEW CONSTRUCTION)
fy = 36 Ksi (Structural steel)
fc' = 3.5 Ksi (Concrete)
fy = 60 Ksi (Reinforcement)

SCOPE OF WORK

Replace bearings at the abutments and pier 2, reconstruct joints at the abutments, install trough under pier 2 finger joints, extend and eliminate deck drains, remove existing bituminous overlay and waterproof membrane system, scarify and repair deck, install concrete overlay.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

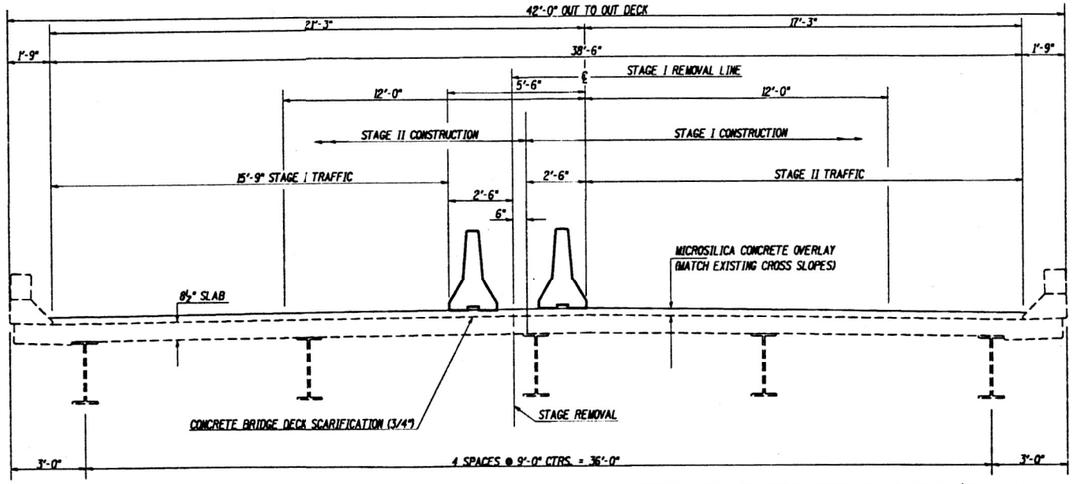
EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 27 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	108
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	JOHNSON	20	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

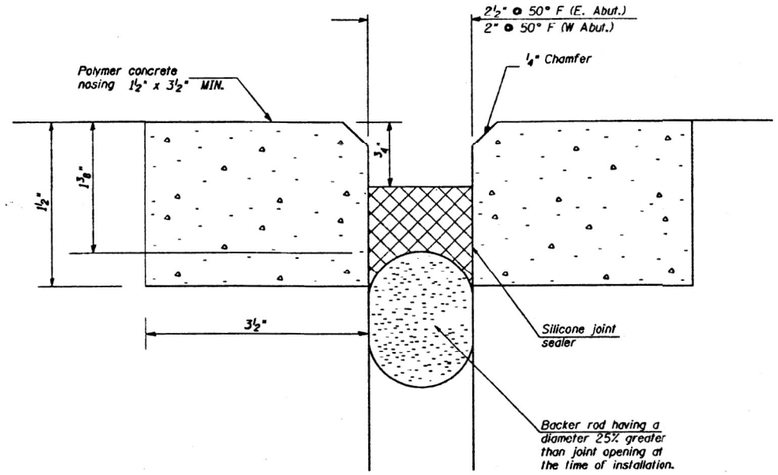
* BSMART FY 2001-3



NOTE: ¾" CONCRETE BRIDGE DECK SCARIFICATION BASED ON A 1½" TOTAL THICKNESS FOR THE BITUMINOUS OVERLAY AND WATERPROOF MEMBRANE SYSTEM. IF THIS TOTAL THICKNESS IS DETERMINED TO BE DIFFERENT IN THE FIELD, THEN THICKNESS OF THE CONCRETE BRIDGE DECK SCARIFICATION MAY BE ADJUSTED TO ½" BY THE ENGINEER.

SEQUENCE OF CONSTRUCTION

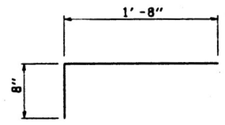
- MILL AND SCARIFY STAGE I
- PAVE STAGE I
- MILL AND SCARIFY STAGE II
- PAVE STAGE II



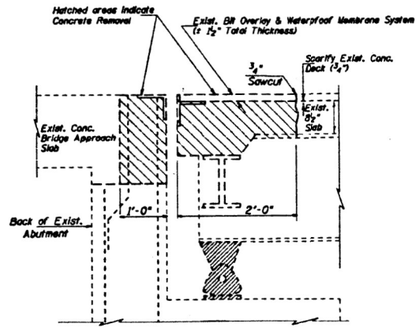
SILICONE JOINT SEAL (CONCRETE DETAILS)

CROSS SECTION

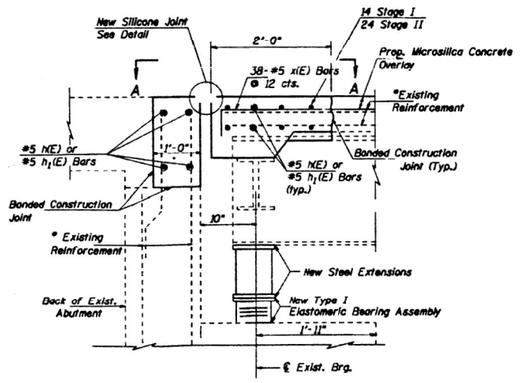
S.N. 044-0029 LOOKING WEST
S.N. 044-0030 LOOKING EAST



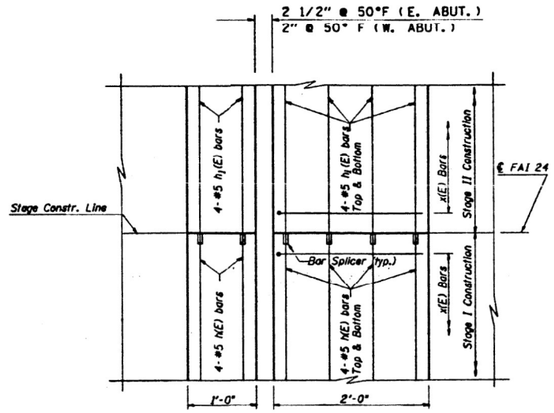
BAR x (E)



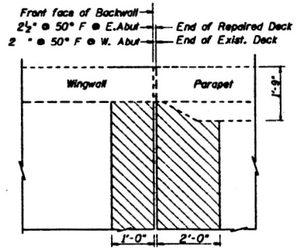
TYPICAL SECTION THRU EXIST. ABUTMENTS



TYPICAL SECTION THRU REPAIRED EXIST. ABUTMENTS



PLAN VIEW A-A



PLAN OF ABUTMENT DECK CORNER
Hatched areas indicate Concrete Removal

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	48	#5	15'-5"	
h1 (E)	48	#5	21'-5"	
x (E)	152	#5	2'-4"	
Concrete Removal			CU YD	18.0
Concrete Super Structures			CU YD	13.2
Reinf Bars, Epoxy Ctd			LBS	2264
Bar Splicers			EACH	48

Reinforcement Bars designated (E) shall be Epoxy coated

NOTES:

* Existing Reinforcement extending into removal area shall be cleaned, straightened and incorporated into the new construction. Cost included in "Concrete Removal."

FOR INFORMATION ONLY

DECK CROSS SECTION; SILICONE JOINT DETAIL; ABUTMENT SECTIONS; BILL OF MATERIAL

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User Name: Misael Cordova
Print Scale: 1:1
Print Area: Full Sheet
Layout: 10
Last Saved: 3/28/2023 7:38:02 AM
Active Config: ADOT ANSI D (22.00 x 34.00 Inches)
Plot Driver: pltdrv.exe
Luminance: 63

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 28 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	109
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. F.A.P.-24	44-2B	JOHNSON	109	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
54 SHEETS

9.1" ø S.S. Spike in East of 36" Sycamore
req'd. at Sta. 169+50 CL Median F.A.I. 24 Elev. 554.86

60'-0" Typ. | End of Appr. Pavt.
20'-0" Typ.
Berm Elev. 591.43
72" Welded ℄ Girder
Haunched ℄ Girder
Berm Elev. 588.12
2-1"ø x 3'-0" Anchor Bolts by Bridge Contractor for Guardrail. ~~Guard~~ ~~Posts and posts by Others~~ (Typ.)
Const. Slope (Typ.)
Subgrade
Embankment Backfill by Bridge Contr. after Abut. is in place.
Elev. 554.94
Creosoted Appr. Piles No. Req'd. 12 Req'd. Length 45'
Elev. 588.58
Creos. Appr. Piles by Bridge Contr. No. Req'd. 12 Req'd. Length 35'
Steel H Piles Typ.
Elev. ℄ P.G. 578.00
14'-0" Min. Vert. Cl.
55'-0"
Channel Excavation
Existing Channel to be filled
Design H.W. Elev. 555.1
Elev. 539.88
Elev. 539.91
Sta. 168+38.82
Elev. 555.91
Sta. 168+73.82
110'-0"
28'-0" ø of 12 Channel Bottom
E.L. Elev. 544.7
Elev. 551.23
Natural Ground
Rock Line (Typ.)
Remove unsuitable material 7.5 ft. below natural ground typ. shoulder width and replace with Porous Granular Embankment.
Removal & Disposal of Unsuitable Material 4220 Cu. Yds.
Porous Granular Embankment 4220 Cu. Yds.

ELEVATION

℄ Rebar. T.P. 42
Bk. of W. Abut. Sta. 168+00.00 Elev. 600.52
Boring 7-S
Bottom of Channel
Boring 12-S
Boring 6-S
Boring 8-S
Boring 9-S
Boring 5-S
Boring 10-S
Boring 1-S
Boring 3-S
Boring 11-S
Boring 2-S
Boring 4-S
C.Q. P.O.C. Sta. 171+27.08 (Rebar T.P. 42) 20 ft. Sta. 168+00 (F.A.I. 24)
C.Q. Sta. 169+86.31 C/L rebar 150+00. TO F.A.I. 24
℄ Survey F.A.I. 24
℄ Pier 2 Sta. 150+03.25 Elev. 598.92
℄ Pier 3 Sta. 151+56.50 Elev. 598.08
℄ Pier 4 Sta. 153+07.83 Elev. 597.69
Bk. of E. Abut. Sta. 155+00.00 Elev. 597.26
℄ Pier 1 Sta. 149+02.33 Elev. 599.05
Flow
℄ Channel
Elev. 552+73.32
E.W. Bd. Lanes
F.A.I. 24
Const. Tangent @ Sta. 152+79.32
E.S. Bd. Lanes
℄ Pier 2
Finger & Sig. Device
Along ℄ of Survey
700'-0" Bk. to Bk. Abut.

PLAN

* Denotes Shelby Tube Borings.

DESIGNED	James Pence
CHECKED	Raw K Mathur
DRAWN	J. SCHNELLER
CHECKED	Raw K Mathur

December 17 1970
EXAMINED
PASSED W. G. Baumann
APPROVED Richard H. Gotterman

FOR INFORMATION ONLY

GENERAL PLAN & ELEVATION
PROJ. F-24-1(43)1
F.A.I. RT. 24 OVER LITTLE SALINE CREEK
F.A.I. RT 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00 (F.A.I. 24)

USER NAME = Misael Cordova	DESIGNED - MAC		REVISED -
	DRAWN - BLH		REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)
SCALE: | SHEET 29 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	110
		CONTRACT NO.		78912
		ILLINOIS	FED. AID PROJECT	

FILE NAME: L:\IDOT\190661OWO 18\IDraw\Structures\CADD Sheets\SN 044-0029 & 0030\0029 0029-0030 Existing Plans.dgn

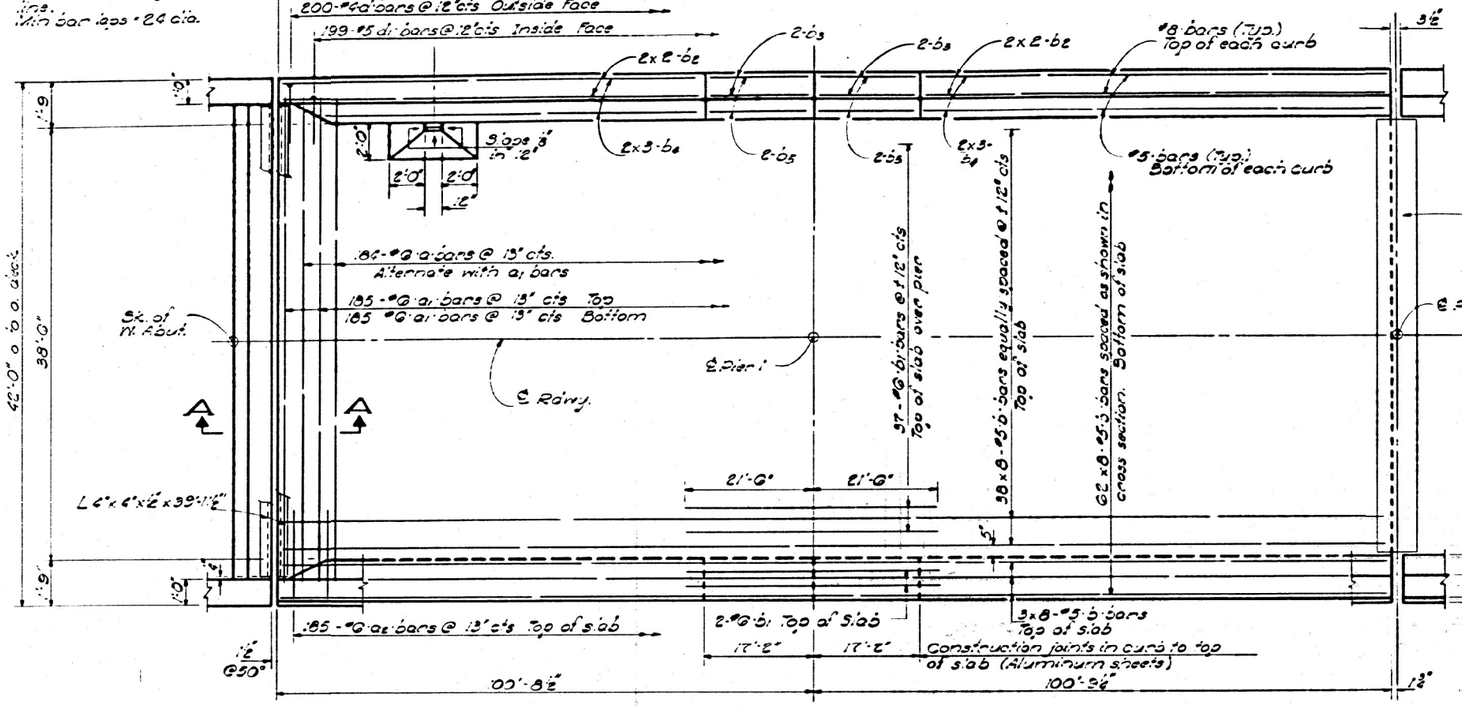
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-28	JOHNSON	109	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
34 SHEETS

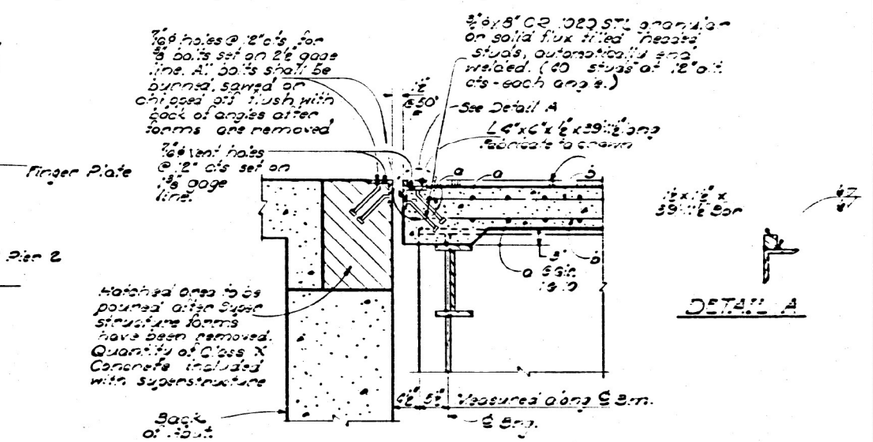
STATE OF ILLINOIS
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

Note:
Bars indicated thus 20x3-#5 e/a indicates 20 lines of bars with 3 lengths per line.
Min bar laps = 24 dia.

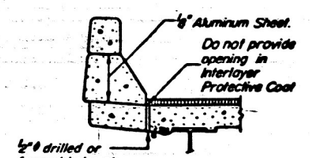


PLAN



DETAIL A

SEC. A-A

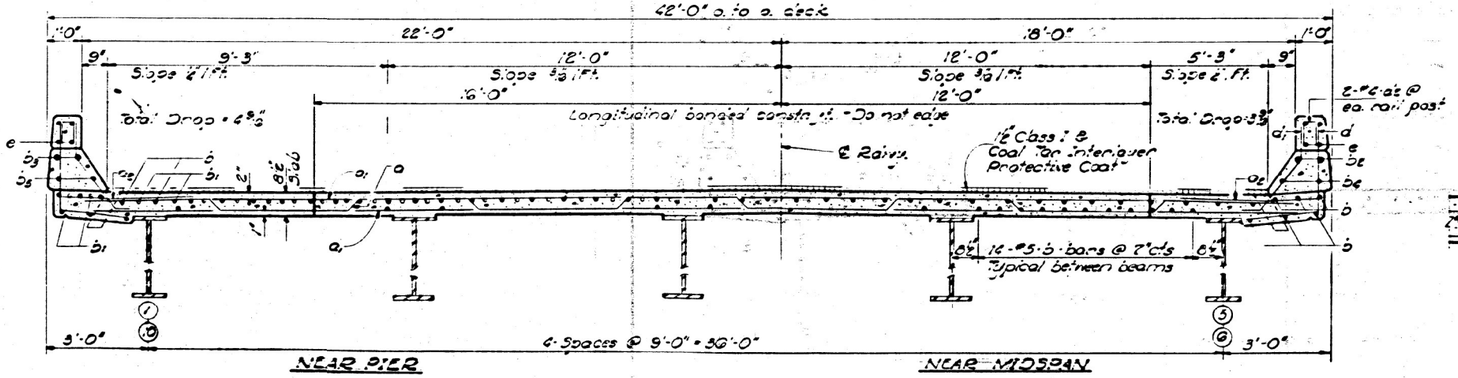


SECTION AT CURB JOINTS

TWO BRIDGES
BILL OF MATERIAL

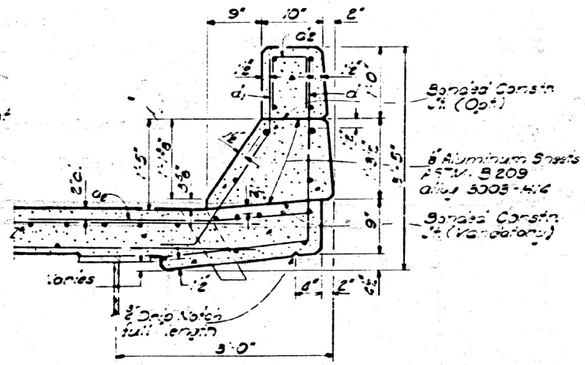
Bar	No.	Size	Length & Shape
a	328	#9	42'-6"
a1	170	#9	40'-3"
a2	740	#9	4'-0"
b	1638	#5	22'-5"
b1	72	#6	25'-0"
b2	32	#5	42'-9"
b3	16	#5	18'-..."
b4	68	#5	29'-9"
b5	16	#5	16'-..."
c	800	#4	4'-5"
c1	790	#5	3'-5"
c2	192	#4	2'-..."
Reinforcement Bars		Lbs.	32,650
Class X Concrete		Cu.Yds.	317.2

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapet are not included in above quantities. See sheet 11



NEAR PIER NEAR MIDSPAN

CROSS SECTION

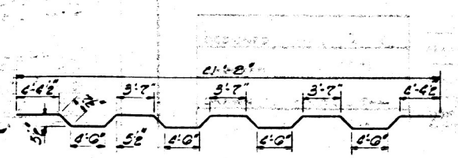


CURB SECTION

Cost of Aluminum Drains and sheets shall be incidental to Class X Concrete.

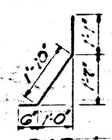
DESIGNED James Powell
CHECKED Ravi K Mathur
DRAWN J.SCHNELLER
CHECKED Ravi K Mathur

EXAMINED Dec. 17 1970
PASSED
APPROVED Richard H. Gilkerson

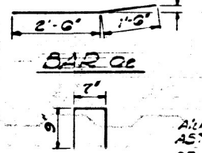


BAR a

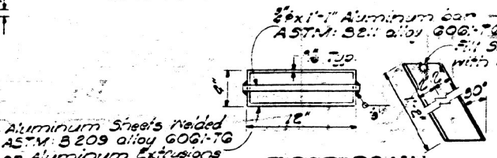
BAR d



BAR d1



BAR d2



FLOOR DRAIN

SUPERSTRUCTURE
SN 044-0029 E.B.
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:38:24 AM)	DATE - 03/03/2023	REVISED -	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 30 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	111
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

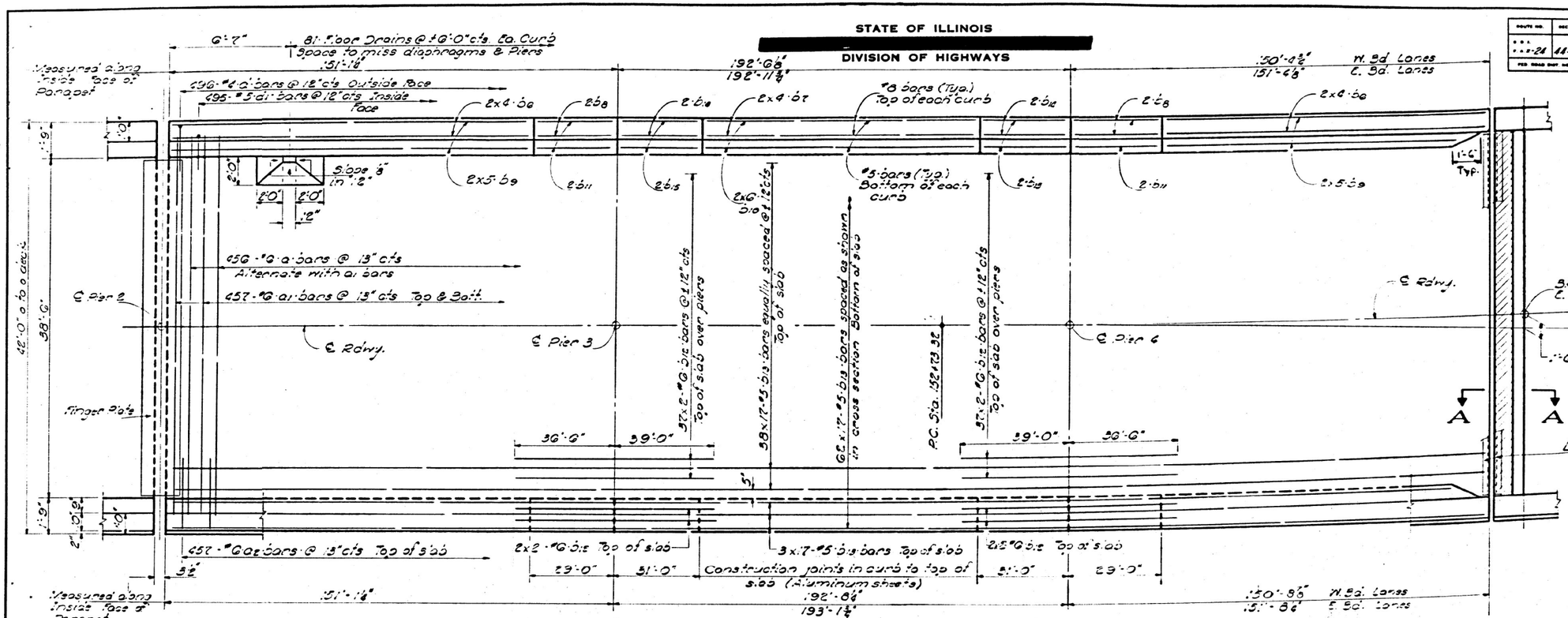
FILE NAME: L:\IDOT\190661\01WO 18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\0030_0029-0030 Existing Plans.dgn

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

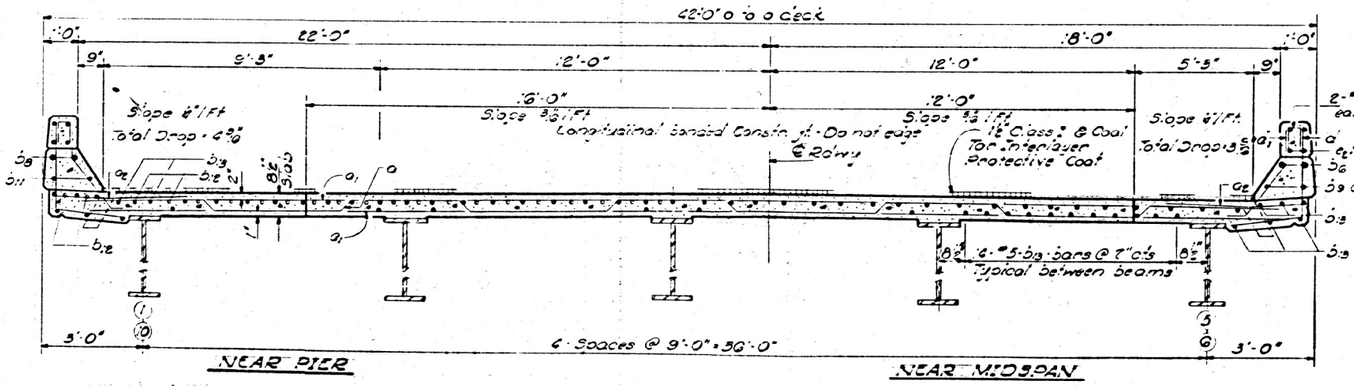
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1028-24	44-2B	JOHNSON	109	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
34 SHEETS

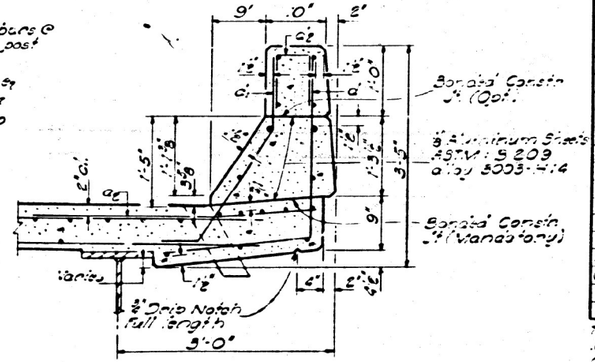
Note:
Bars indicated thus 10x8-#5 e.a. indicates 20 lines of bars with 8 lengths per line.
Min. bar lap = 24 dia.
For Pier drain detail & Sec. A-A. See sheet #9.



PLAN



CROSS SECTION



CURB SECTION

Cost of Aluminum Drains and sheets shall be incidental to Class X Concrete.

Note: For detail Section at Curb Joints See Sheet # 9.

FOR INFORMATION ONLY

TWO SPANS
BILL OF MATERIAL

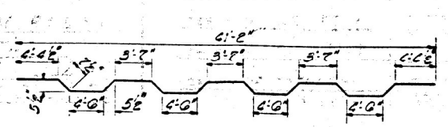
Bar	No.	Size	Length	Shape
a	912	#8	42'-6"	
a1	858	#8	40'-3"	
a2	1208	#3	4'-0"	
b2	64	#8	32'-6"	
b7	32	#8	34'-3"	
b9	76	#8	28'-9"	
b9	80	#5	25'-6"	
b10	68	#5	29'-0"	
b11	76	#5	26'-9"	
b12	1528	#6	38'-0"	
b13	3504	#5	30'-3"	
b14	76	#8	30'-9"	
b15	76	#5	30'-9"	
G	1984	#6	4'-5"	J
G1	1980	#5	3'-5"	J
G2	666	#6	2'-1"	⅂
Reinforcement Bars Lbs				36,280
Class X Concrete			Cu Yds	160.5

This lengths and quantities of longitudinal reinforcement and Class X Concrete in parapet are not included in above quantities. See Sheet # 11.

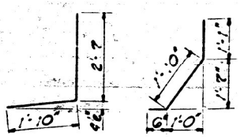
SUPERSTRUCTURE
SPANS 3, 4 & 5
RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

DESIGNED	James Power
CHECKED	Russ K Mathur
DRAWN	J. SCHNELLER
CHECKED	Russ K Mathur

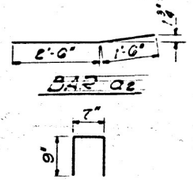
EXAMINED Dec. 17 1970
PASSED H. E. Bammann
APPROVED Richard H. Gutterman



BAR a



BAR d BAR d1



BAR a2 BAR d2

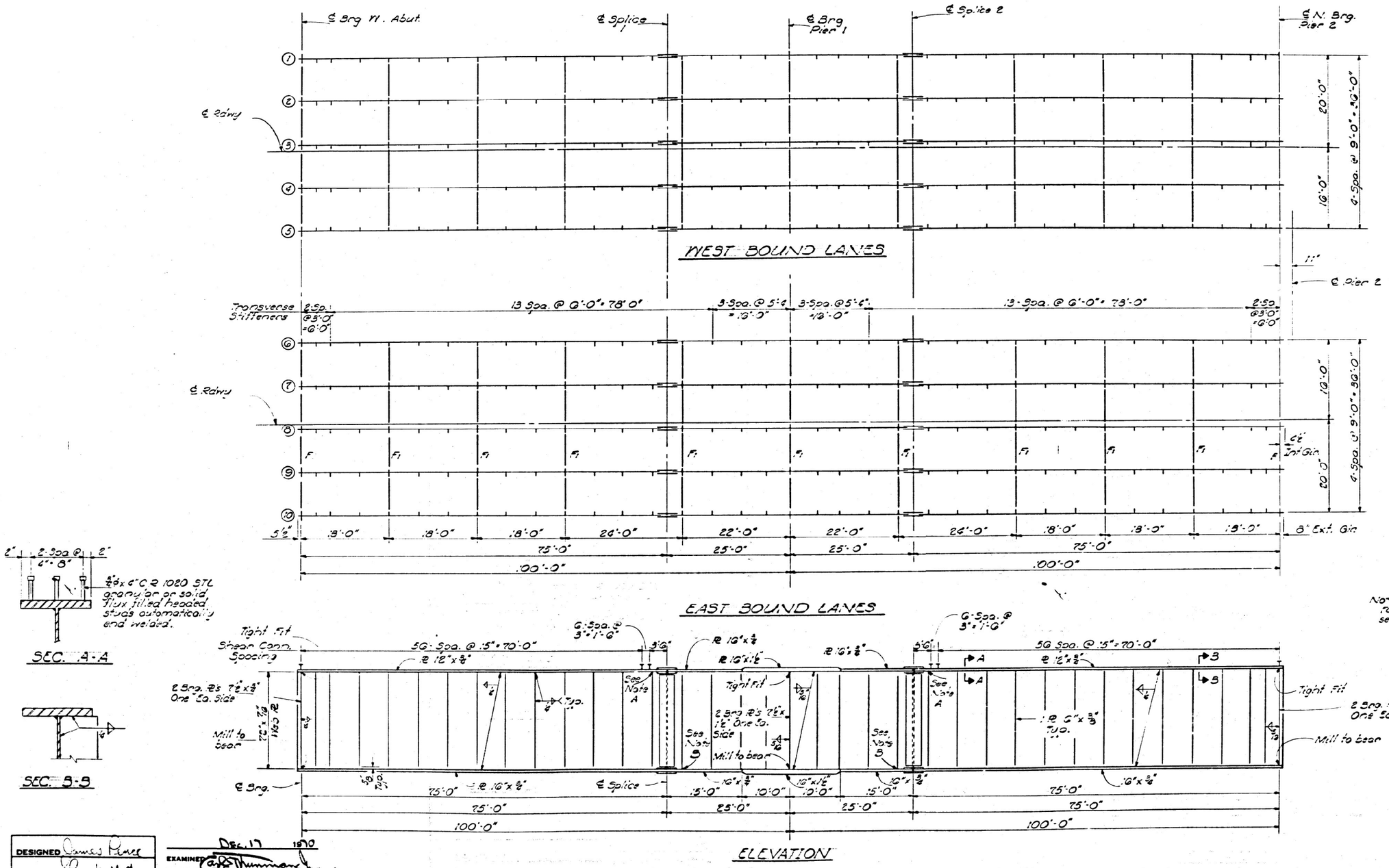
STATE OF ILLINOIS

DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-2B	JOHNSON	109	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 13

36 SHEETS



DESIGNED	James Rowe
CHECKED	Ravi K. Mathur
DRAWN	J. SCHNELLER
CHECKED	Ravi K. Mathur

EXAMINED Dec. 17 1970

PASSED

APPROVED

FOR INFORMATION ONLY

STRUCTURAL STEEL
SPANS 1 & 2
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

CMT	USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
License No. 184-000613		DRAWN - BLH	REVISED -
	PLOT SCALE = N/A	CHECKED - JTH	REVISED -
	PLOT DATE = 3/28/2023 (7:38:42 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 32 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	113
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

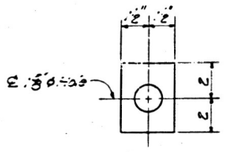
FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\032 0029-0030 Existing Plans.dgn

Note:
Structural steel requirements of equal section and strength may be substituted for the castings.

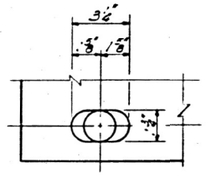
STATE OF ILLINOIS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-24	44-2B	JOHNSON	109	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

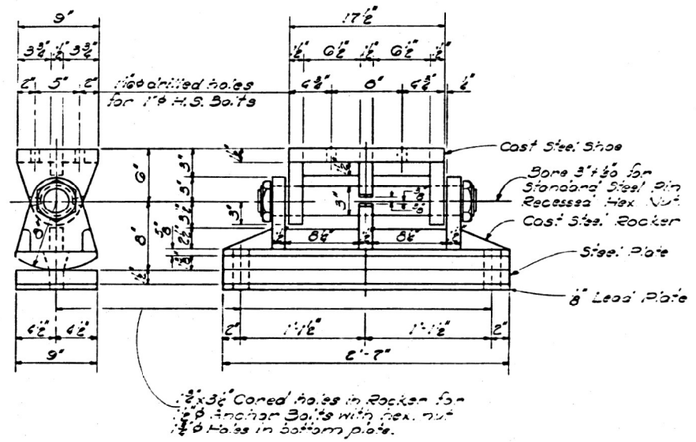
SHEET NO. 16
54 SHEETS



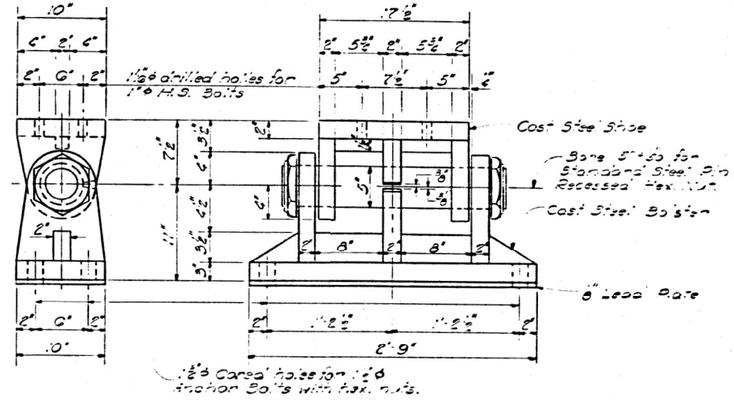
2" SLIDING 'E' FOR ROCKER



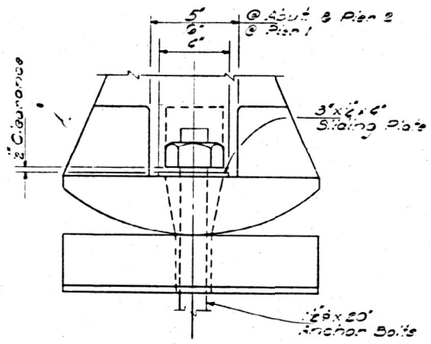
PLAN OF CORED HOLES



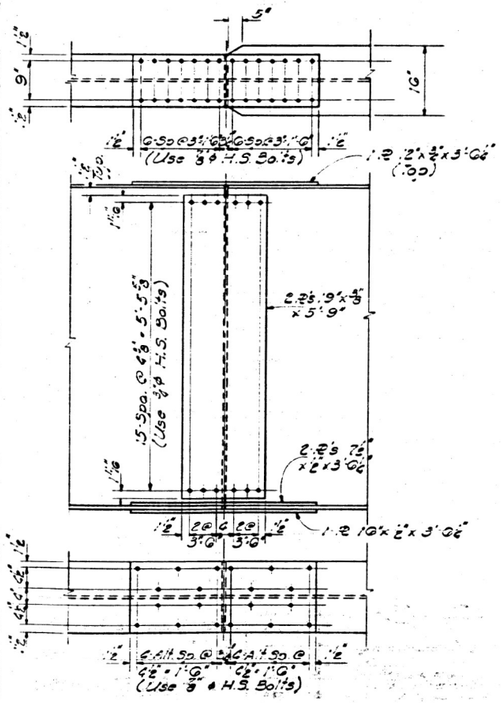
BEARING DETAIL WEST BEARING
PIER 2 & WEST ABUTMENT



BEARING DETAIL PIER 1



ROCKER END VIEW



SPLICE DETAIL
SPANS 1 & 2

TOP OF WEB ELEVATION

Loc. \ Grid	W. BD. LANES 1	2	3	4	5	E. BD. LANES 6	7	8	9	10
℄ Brg. W Abut	599.266	599.408	599.569	599.691	599.529	599.379	599.691	599.569	599.408	599.266
℄ Splice 1	598.533	598.715	598.855	598.977	598.819	598.819	598.977	598.855	598.715	598.533
℄ Pier 1	598.337	598.519	598.659	598.781	598.623	598.623	598.781	598.659	598.519	598.337
℄ Splice 2	598.141	598.323	598.463	598.585	598.427	598.427	598.585	598.463	598.323	598.141
℄ W Brg. Pier 2	597.979	597.861	598.002	597.924	597.768	597.768	597.924	598.002	597.861	597.979

FOR INFORMATION ONLY

BEARING DETAILS
SPANS 1 & 2
F.A.I. RT. 24 SEC. 66-2-3
JOHNSON COUNTY
STA. 15+450.00

DESIGNED	[illegible]		
CHECKED	Ravi K Mathur		
DRAWN	J. SCHNELLER		
CHECKED	Ravi K Mathur		

EXAMINED Dec. 17 1970
PASSED [illegible]
APPROVED [illegible]
Chief Highway Engineer

FILE NAME: L:\IDOT\190661\0WO - 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\0033 0029-0030 Existing Plans.dgn

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	DRAWN - BLH		REVISED -
PLOT SCALE = N/A	CHECKED - JTH		REVISED -
PLOT DATE = 3/28/2023 (7:38:52 AM)	DATE - 03/03/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

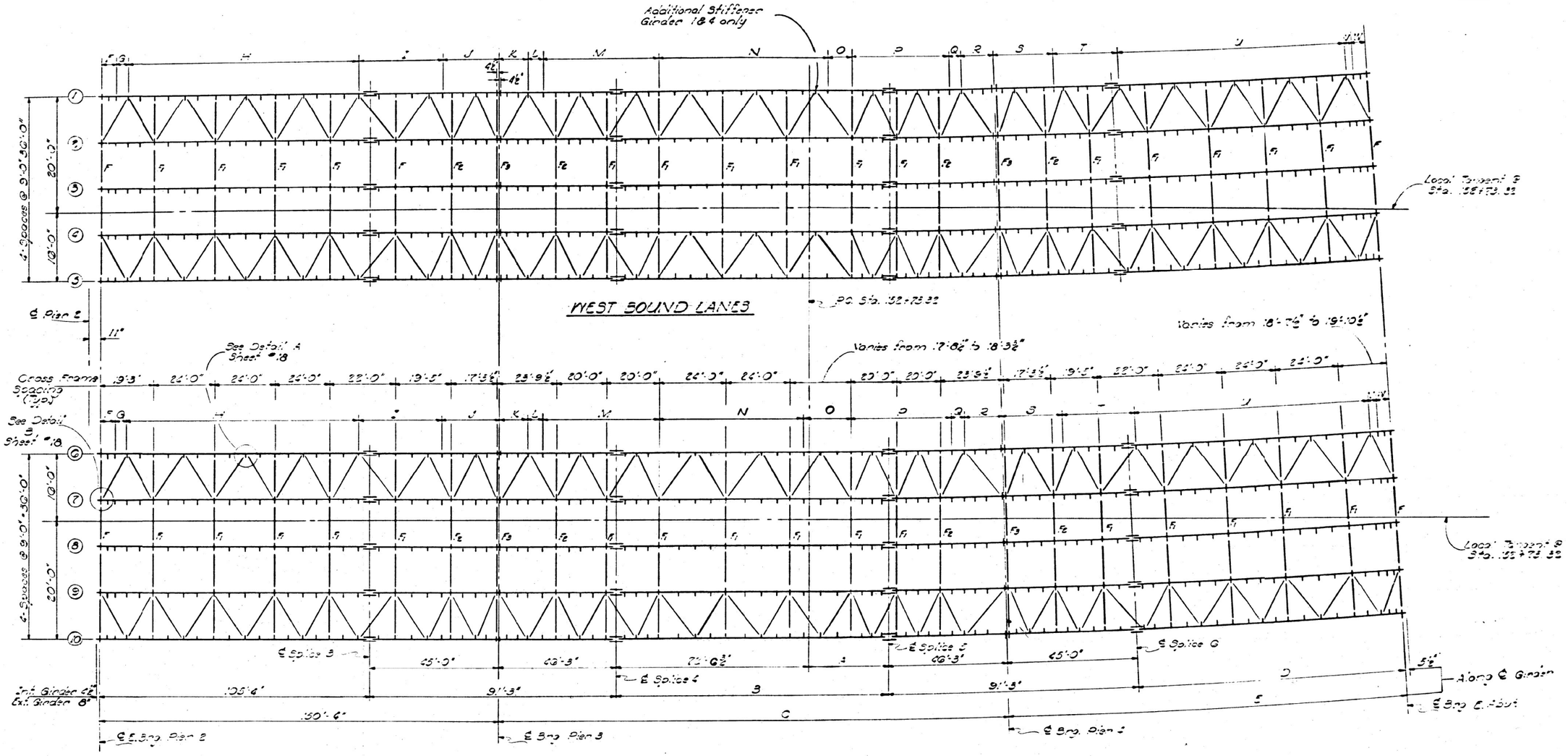
SCALE: | SHEET 33 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	114
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-28	JOHNSON	109	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 15
54 SHEETS



FOR INFORMATION ONLY

DESIGNED James Mucci
CHECKED Ravi K Matthur
DRAWN J SCHNELLER
CHECKED Ravi K Matthur

EXAMINED Dec. 17 1970
PASSED H C Bumpus
APPROVED Richard H. Gilbertson

DIMENSIONS

Girder	Radius	A	B	C	D	E
1	1711'-0.74	27°-5½"	100'-0½"	92'-6¼"	104'-8½"	149'-8½"
2	1725.74	27°-6"	100'-0⅝"	92'-6⅛"	104'-9⅛"	149'-9⅝"
3	1739.74	27°-6⅜"	100'-1⅛"	92'-7⅛"	104'-10⅛"	149'-10⅜"
4	1749.74	27°-6⅝"	100'-1⅝"	92'-7⅝"	104'-11⅛"	149'-11⅛"
5	1753.74	27°-7⅜"	100'-2⅛"	92'-8⅜"	105'-0⅛"	150'-0⅛"
6	1720.74	27°-11"	100'-5⅜"	92'-11½"	105'-7⅛"	150'-7⅝"
7	1723.74	27°-11⅜"	100'-6¼"	93'-0⅛"	105'-8⅛"	150'-8⅛"
8	1762.74	28'-0"	100'-6⅝"	93'-0⅝"	105'-9⅝"	150'-9⅝"
9	1725.74	28'-0⅛"	100'-7⅛"	93'-1⅛"	105'-10⅛"	150'-10⅛"
10	1726.74	28'-1"	100'-7⅝"	93'-1⅝"	105'-11⅛"	150'-11⅛"

STIFFENER SPACING

Girder	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	362'-5"	362'-5"	362'-6"	362'-5"	362'-5"	362'-5"	362'-7"	362'-8"	362'-5"	362'-5"	362'-5"	362'-5"	362'-8"	362'-7"	362'-5"	362'-5"	362'-5"	362'-2"	362'-2"	362'-2"
2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	45 @ 8"	↓	↓	↓	↓	↓	↓	↓	45 @ 8"	↓
3											45 @ 8⅛"								45 @ 8⅛"	
4											45 @ 8¼"								45 @ 8¼"	
5										360'-7"	44 @ 8⅜"								44 @ 8⅜"	
6										360'-0"	44 @ 8½"								44 @ 8½"	
7											44 @ 8⅝"								44 @ 8⅝"	
8											44 @ 8¾"								44 @ 8¾"	
9											44 @ 8⅞"								44 @ 8⅞"	
10	362'-5"	362'-5"	362'-6"	362'-5"	362'-5"	362'-5"	362'-7"	362'-8"	362'-5"	360'-0"	362'-1"	362'-5"	362'-5"	362'-7"	362'-5"	362'-5"	362'-5"	362'-2"	362'-2"	362'-2"

STRUCTURAL STEEL
SPANS 3, 4 & 5
F.A.I. RT. 24 SEC. 44-2 S
JOHNSON COUNTY
STA. 131+50.00

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\0034 0029-0030 Existing Plans.dgn

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	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:39:01 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 34 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	115
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

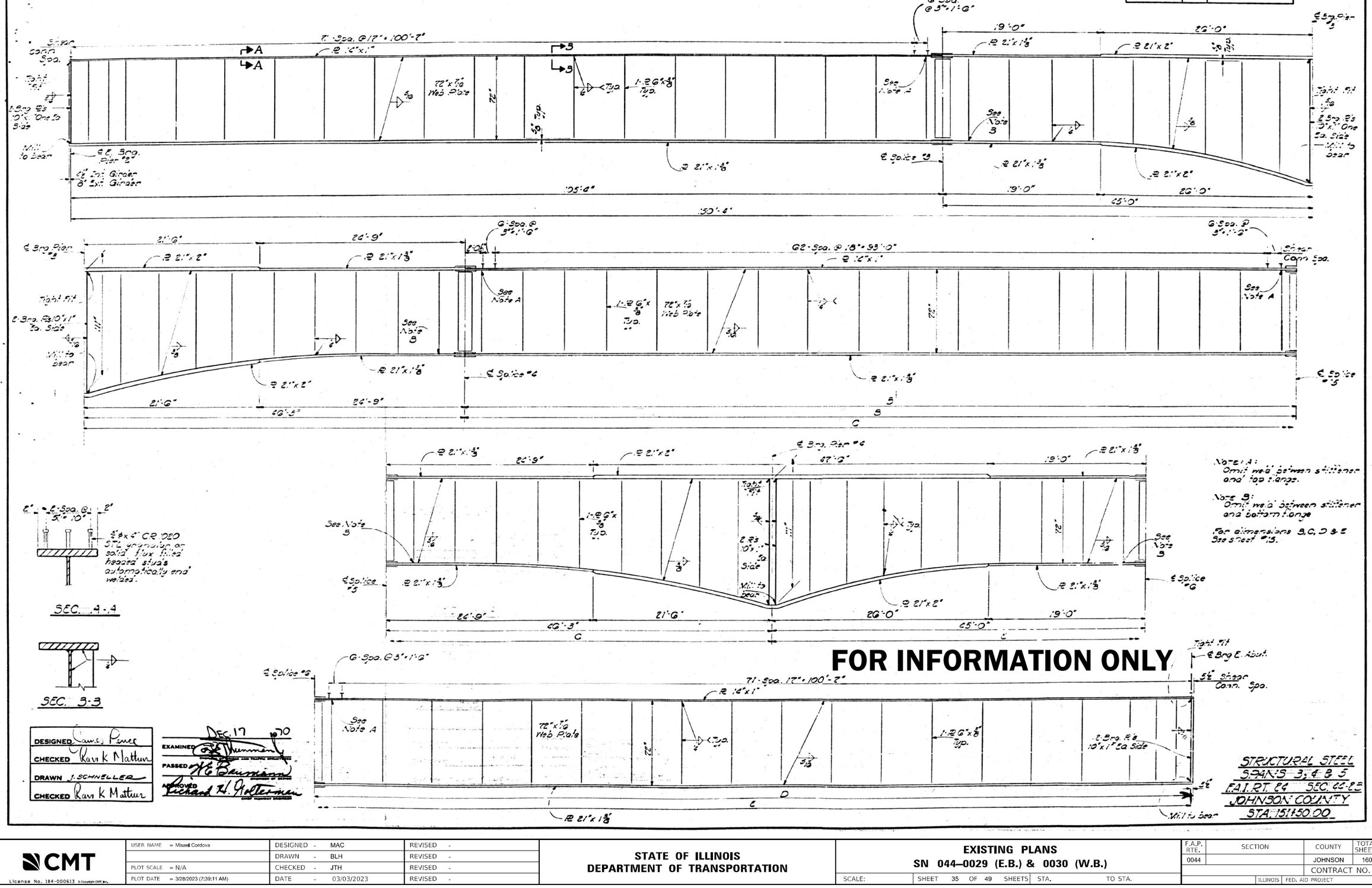
STATE OF ILLINOIS

DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-2B	JOHNSON	109	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 16

56 SHEETS



FOR INFORMATION ONLY

DESIGNED	Lars Pinee
CHECKED	Ravi K Mathur
DRAWN	J. SCHNELLER
CHECKED	Ravi K Mathur

DEC. 17 19 70

EXAMINED

PASSED

APPROVED

STRUCTURAL STEEL
SPANS 3, 4 & 5
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

CMT License No. 184-000613	USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
		DRAWN - BLH	REVISED -	
	PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
	PLOT DATE = 3/28/2023 (7:39:11 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 35 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	116
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\035 0029-0030 Existing Plans.dgn

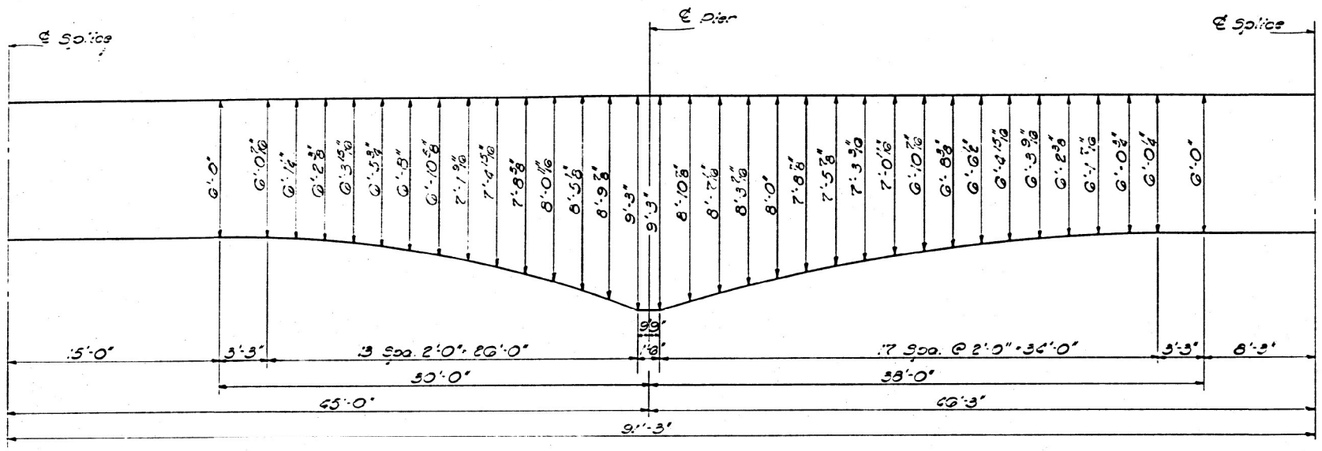
STATE OF ILLINOIS

DIVISION OF HIGHWAYS

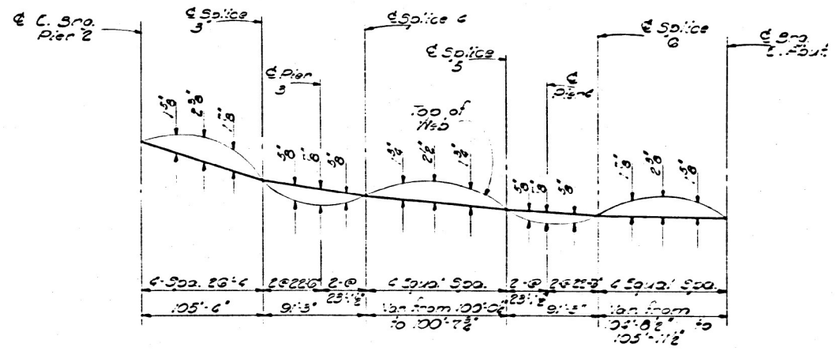
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...				
...-28	44-28	JOHNSON	109	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

SHEET NO. 17

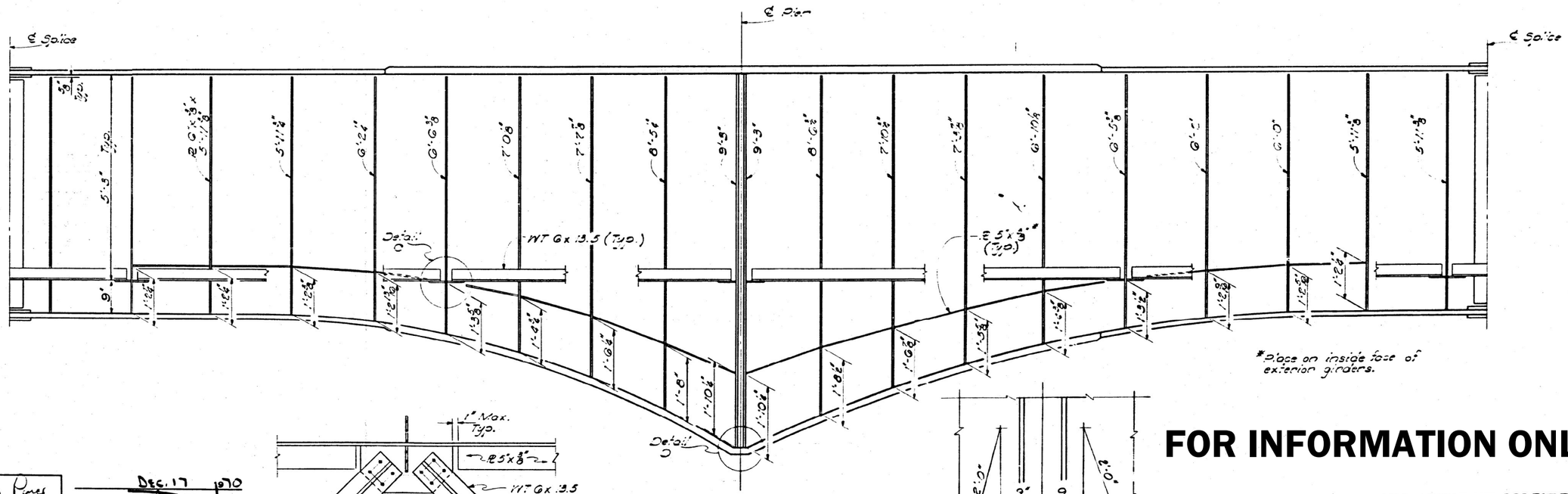
36 SHEETS

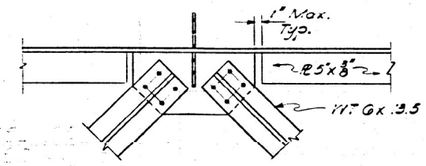


WEB PLATE TEMPLATE



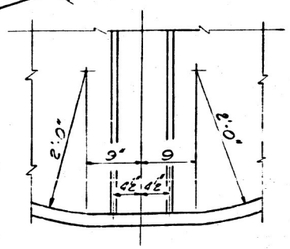
CAMBER DIAGRAM





DETAIL C

HAUNCH DETAILS



DETAIL D

FOR INFORMATION ONLY

STRUCTURAL STEEL DETAILS
SPANS 3,4 & 5
F.A.I. 27.24 — SEC. 44-2B
JOHNSON COUNTY
STA. 15+50.00

DESIGNED	James Pinel
CHECKED	Ravi K Mathur
DRAWN	J. SCHNELLER
CHECKED	Ravi K Mathur

EXAMINED Dec. 17 1970

PASSED W. E. Bamman

APPROVED Richard W. Hoffman

USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:39:23 AM)	DATE - 03/03/2023	REVISED -	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 36 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	117
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: L:\IDOT\190661\0\WO 18\Drawn\Structures\CADD Sheets\SN 044-0029 & 0030\0036 0029-0030 Existing Plans.dgn

STATE OF ILLINOIS

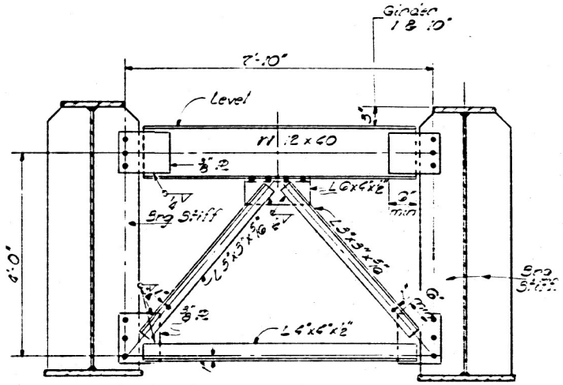
DIVISION OF HIGHWAYS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-2B	JOHNSON	109	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
34 SHEETS

TOP OF WEB ELEVATIONS
SPANS 3, 4, & 5

Loc. \ Gir.	W. Bd. LANES 1	2	3	4	5	E. Bd. LANES 6	7	8	9	10
℄ E. Brg. Pier 2	597.049	597.831	597.971	597.893	597.752	597.752	597.893	597.971	597.831	597.049
℄ Splice 3	597.021	597.203	597.343	597.265	597.104	597.104	597.265	597.343	597.203	597.021
℄ Pier 3	596.778	596.910	597.050	596.972	596.811	596.811	596.972	597.050	596.910	596.778
℄ Splice 4	596.591	596.773	596.913	596.835	596.674	596.674	596.835	596.913	596.773	596.591
℄ Splice 5	596.253	596.435	596.575	596.497	596.336	596.336	596.497	596.575	596.435	596.253
℄ Pier 4	596.079	596.261	596.401	596.323	596.162	596.162	596.323	596.401	596.261	596.079
℄ Splice 6	596.069	596.251	596.391	596.313	596.152	596.152	596.313	596.391	596.251	596.069
℄ Brg. E. Abut.	595.930	596.108	596.509	596.231	596.069	596.069	596.231	596.509	596.108	595.930



DETAIL CROSS FRAME F
32 Req'd

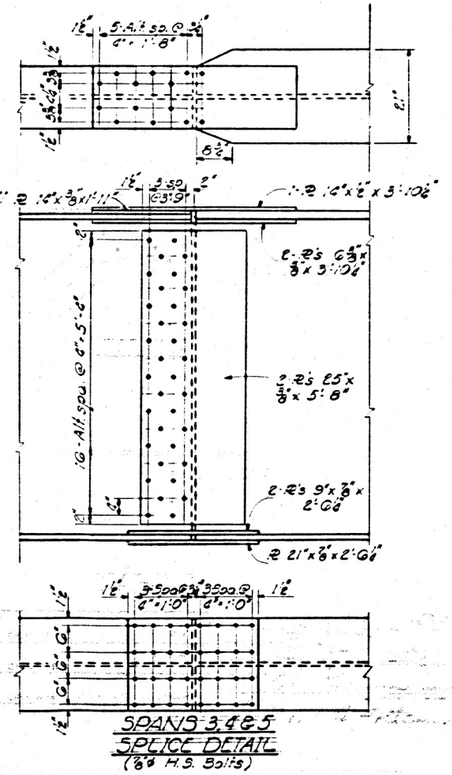
INTERIOR GIRDER MOMENT TABLE

	.4 Span 1 / .6 Span 2	Pier 2	.4 Span 2 / .6 Span 3	Pier 3 / Pier 4	.5 Span 4
Is (in⁴)	61186	78460	66970	58052	66970
Ic (in⁴)	98812		85567		85567
Ss (in³)	1188	2092	2229	2591	2229
Sc (in³)	1662		2368		2368
℄ (ft)	1.185	1.722	1.256	1.827	1.280
V+L (k)	750	2291	1236	6558	1326
fs ℄ (ksi)	7.0	13.1	9.8	13.8	7.2
S ℄ (k/ft)	.537		.537		.537
Ms ℄ (k)	607		790		820
M+L (k)	1040	850	1298	2340	1815
M+Lv (k)	231	187	305	388	285
Total (k)	1378	1037	2723	2728	2580
fs ℄ (ksi)	12.3	5.9	11.6	5.9	12.3
fs Total (ksi)	19.9	13.0	20.6	13.7	19.5
V2 (k)	699		791		791

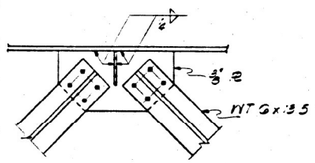
INTERIOR GIRDER REACTION TABLE

	W. Abut. / W. Brg. Pier 2	Pier 3	E. Brg. Pier 2 / E. Abut.	Pier 3 / Pier 4
R2 (k)	625	1521	658	2517
R1+R2 (k)	783	1503	805	2325
Imp. (k)	112	190	106	206
R Total (k)	1276	3214	1269	5048

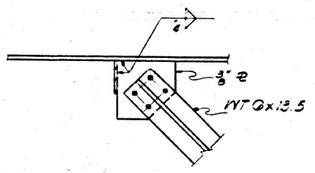
Is and Ss are the moment of inertia and section modulus of the steel section.
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs.
V+L is the maximum ℄ impact shear range in span.



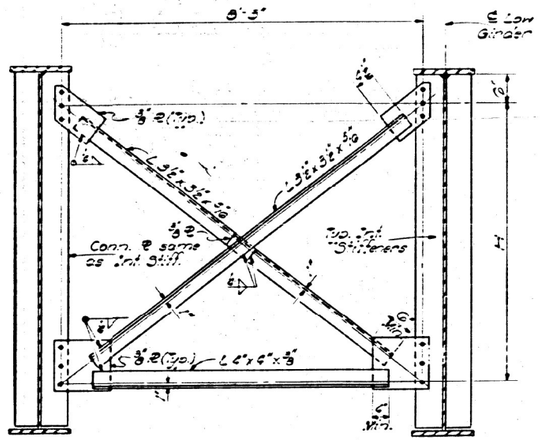
SPANS 3, 4 & 5
SPLICE DETAIL
(⅞ø H.S. Bolts)



DETAIL A



DETAIL B



DETAIL CROSS FRAME F1, F2 & F3

F1	200 Req'd
F2	32 Req'd
F3	16 Req'd

H DIM.

	H
F1	6'-5"
F2	5'-7"
F3	3'-4"

DESIGNED	James Price
CHECKED	Ravi K Mathur
DRAWN	J SCHNELLER
CHECKED	Ravi K Mathur

EXAMINED Dec. 17 1970
PASSED H.C. Baumann
APPROVED Richard H. Gotterman

FOR INFORMATION ONLY

STRUCTURAL STEEL DETAILS
F.A.I. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

FILE NAME: L:\DOT\1906610\WO_18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\037 0029-0030 Existing Plans.dgn

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	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:39:32 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 37 OF 49 SHEETS | STA. | TO STA.

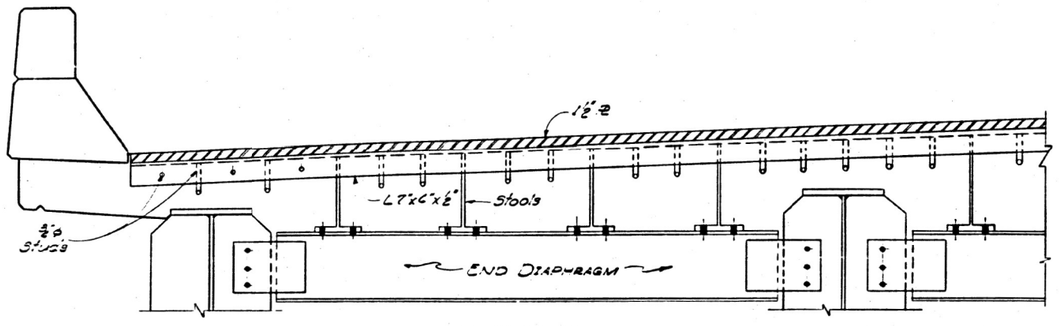
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	118
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS

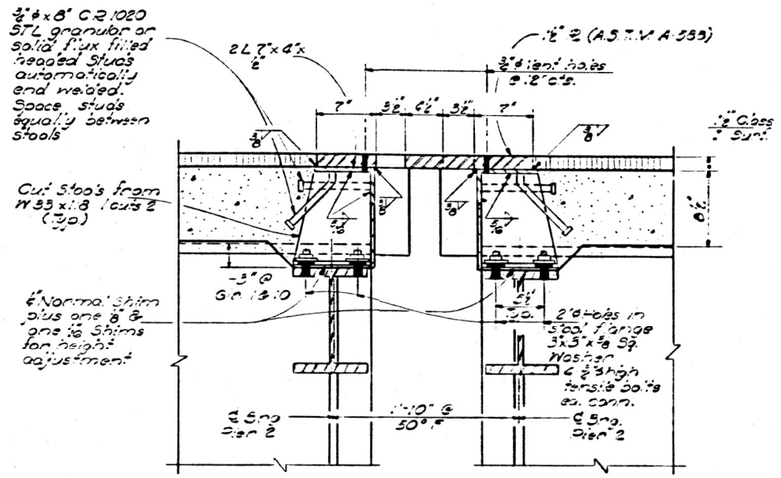
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 44-24	44-2B	JOHNSON	109	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

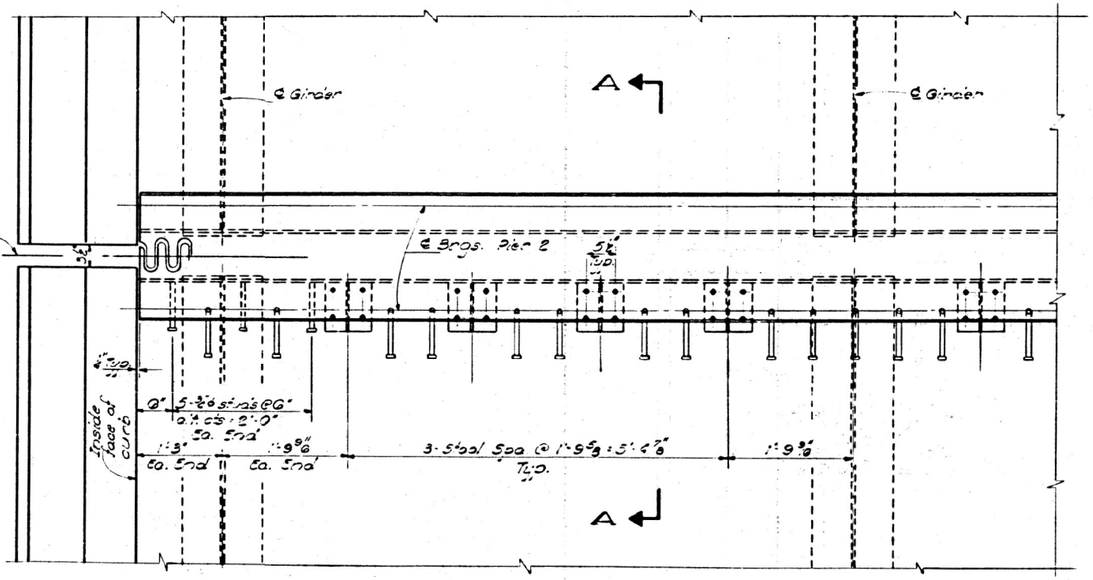
SHEET NO. 20
34 SHEETS



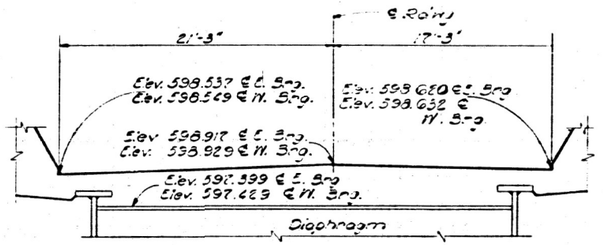
ELEVATION



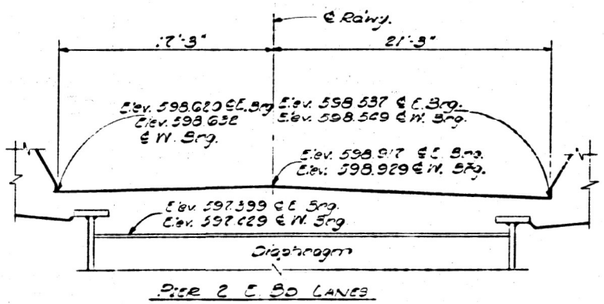
SECTION A-A



PLAN

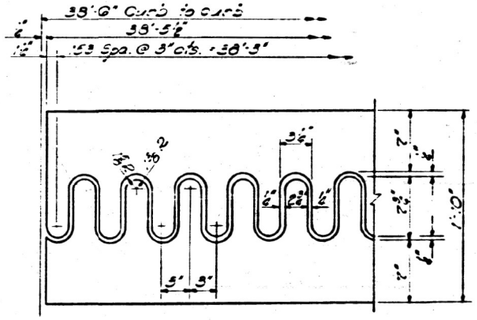


Pier 2 W. Bd. Lanes



Pier 2 E. Bd Lanes

ELEVATIONS TOP OF CLASS I SURFACING
looking East



FLAME CUT PLATE
Plate shall be matchmarked (A.S.T.M. A-588)

DESIGNED	James Hruz
CHECKED	Ravi K Mathur
DRAWN	J SCHNELLER
CHECKED	Ravi K. Mathur

EXAMINED Dec. 17 1970
PASSED H E Bammann
APPROVED Richard H Gutterman

NOTES:
Roadway expansion guards shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.
The roadway expansion plates shall be flame cut as provided in Article 507.06(1) of the Standard Specifications.

EXPANSION DEVICE - PIER 2
F.A.I. RT. 24 SEC. 44-2 B
JOHNSON COUNTY
STA. 15+50.00

FOR INFORMATION ONLY

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PLOT DATE = 3/28/2023 (7:39:42 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)

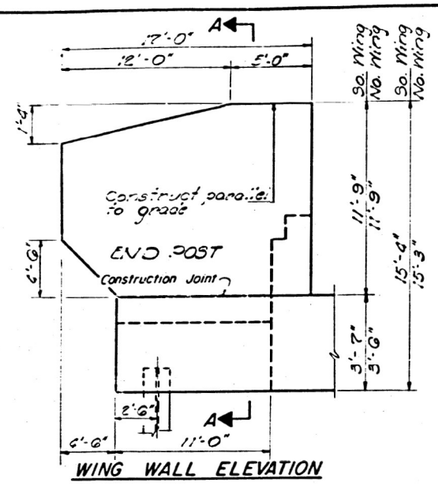
SCALE: | SHEET 38 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	119
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-2B	JOHNSON	109	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

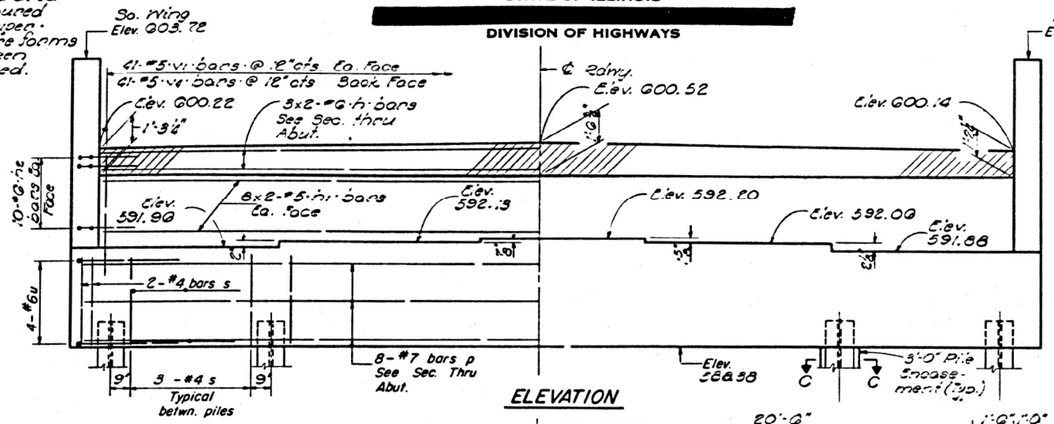
SHEET NO. 2 OF 54 SHEETS

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

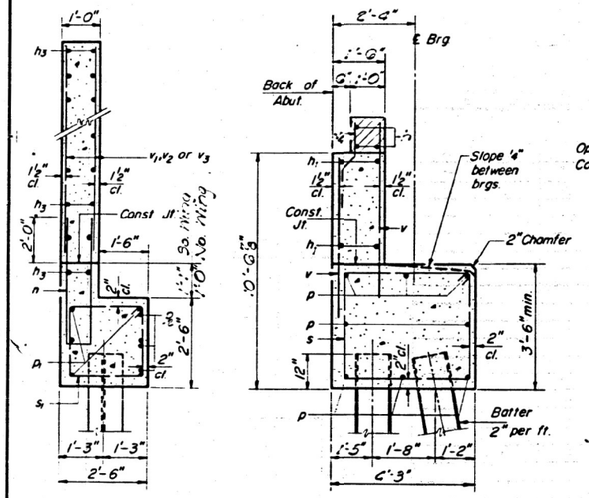


WING WALL ELEVATION

Hatched area to be poured after superstructure forms have been removed.

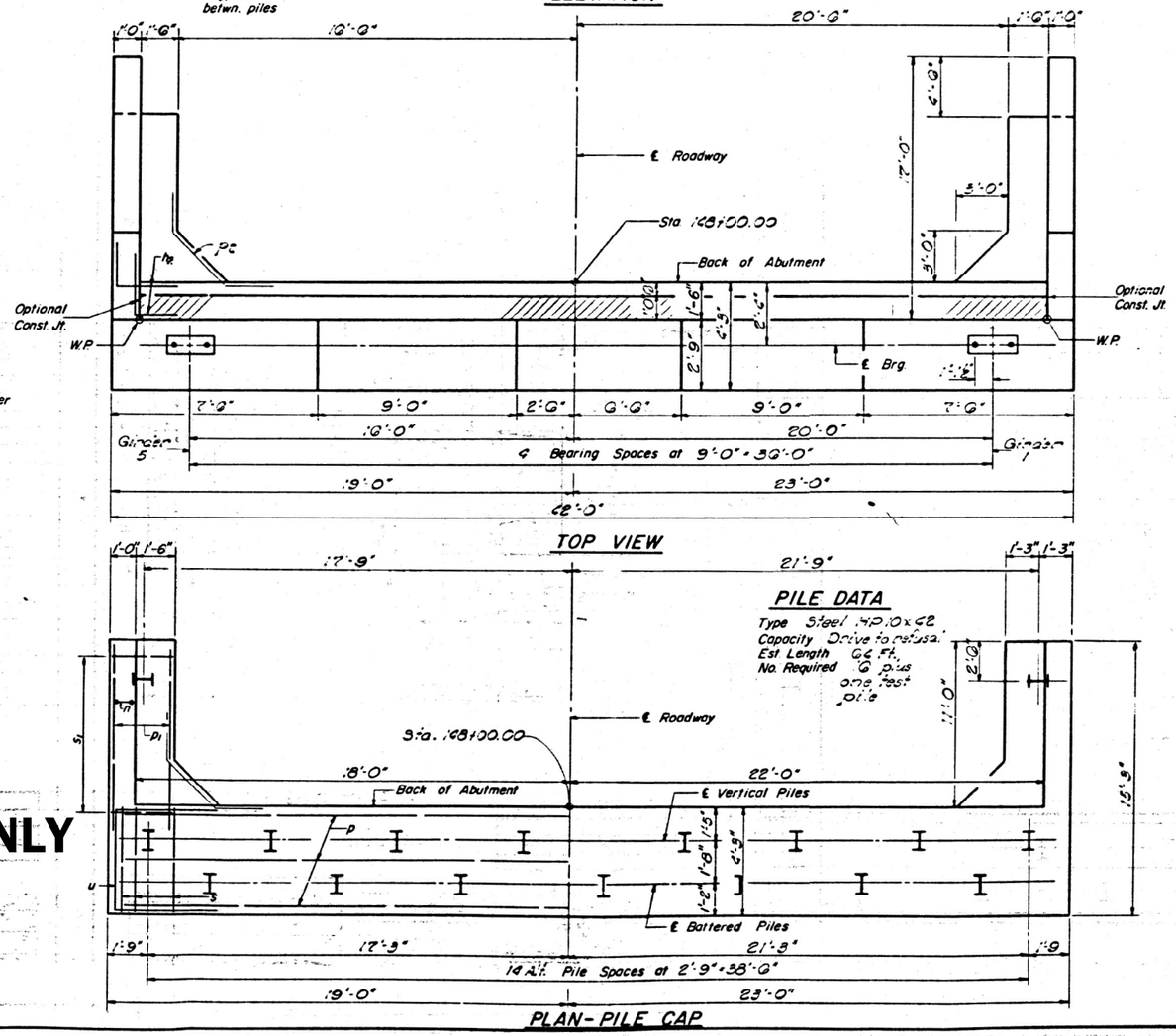


ELEVATION



SEC. A-A

SEC. THRU ABUT.

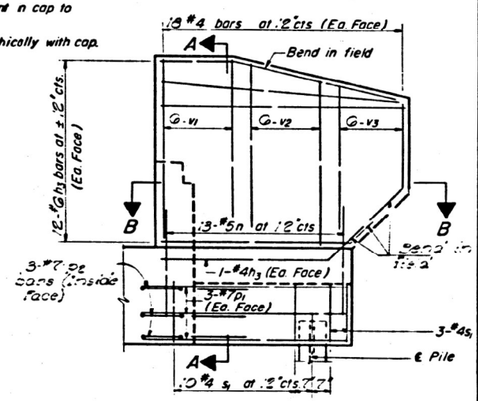


TOP VIEW

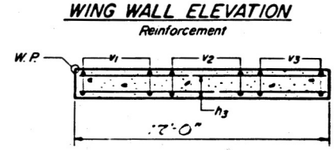
PLAN-PILE CAP

Space reinforcement in cap to miss anchor bolts.

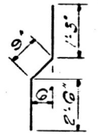
Pour steps monolithically with cap.



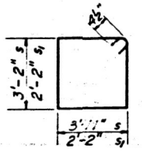
WING WALL ELEVATION
Reinforcement



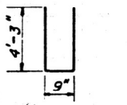
SEC. B-B



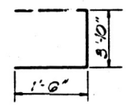
3-#2 ties



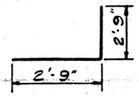
BARs s & s1



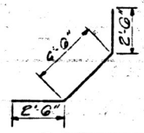
BAR n



BAR u



BAR h2



BAR p2

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	6	#6	20'-9"	
h1	52	#5	20'-9"	
h2	40	#6	5'-0"	
h3	52	#6	10'-9"	
n	26	#5	9'-3"	
p	8	#7	61'-9"	
p1	12	#7	13'-0"	
p2	6	#7	9'-6"	
s	62	#4	14'-11"	
s1	26	#4	9'-5	
u	8	#6	6'-10"	
v	82	#5	9'-6"	
v1	26	#4	11'-6"	
v2	26	#4	10'-9"	
v3	26	#4	10'-3"	
Vc	61	#2	6'-6"	
Class X Concrete			Cu. Yds.	39.8
Reinforcement Bars			Lbs.	6050
Steel Piling (HP 10x42)			Lin. Ft.	1022
Test Piles (HP 10x42)			Ea.	1

Note:
For Pile Encasement Detail See Sheet # 23.

FOR INFORMATION ONLY

DESIGNED	James Perez	
CHECKED	Ravi K Mathur	
DRAWN	J. SCHNELLER	
CHECKED	Ravi K Mathur	

EXAMINED Dec. 17 1970
PASSED W E Bamman
APPROVED Richard H. Holtzman

A-9

2-1-66, 8-1-70

WEST ABUTMENT
WEST BD LANES
F.A.P. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 157+50.00

FILE NAME: L:\DOT\190661\WO_18\Draw\Structures\CADD_Sheets\SN 044-0029 & 0030\039 0029-0030 Existing Plans.dgn

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	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:39:51 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 39 OF 49 SHEETS | STA. | TO STA.

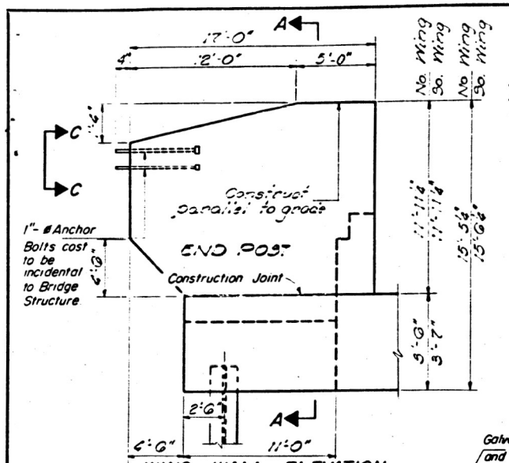
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	120
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

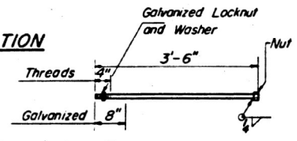
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 44-24	44-28	JOHNSON	109	87

SHEET NO. 22
34 SHEETS

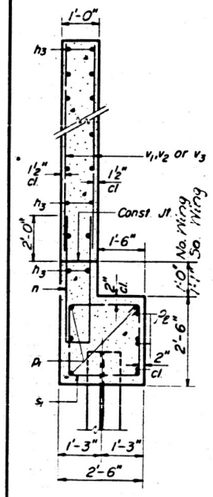
FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



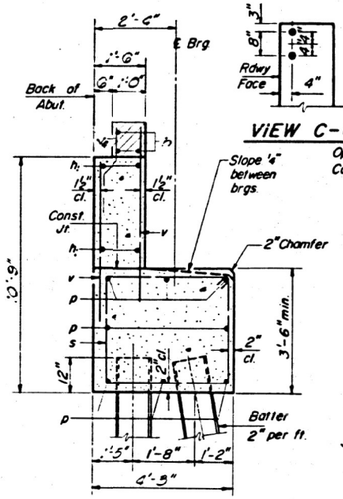
WING WALL ELEVATION



1" ø ANCHOR BOLT



SEC. A-A



SEC. THRU ABUT.

VIEW C-C

FOR INFORMATION ONLY

Note:
For Pile Encasement See Sheet # 23.

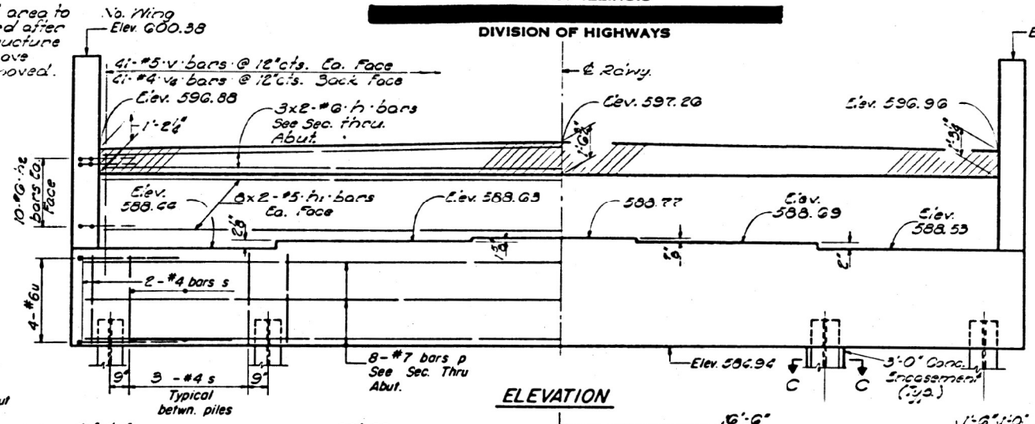
DESIGNED	James Ferell	
CHECKED	Rank Mathur	
DRAWN	J. SCHNELLER	
CHECKED	Rank Mathur	

EXAMINED Dec. 17 1970
PASSED H.E. Bammann
APPROVED Richard H. Gollmann

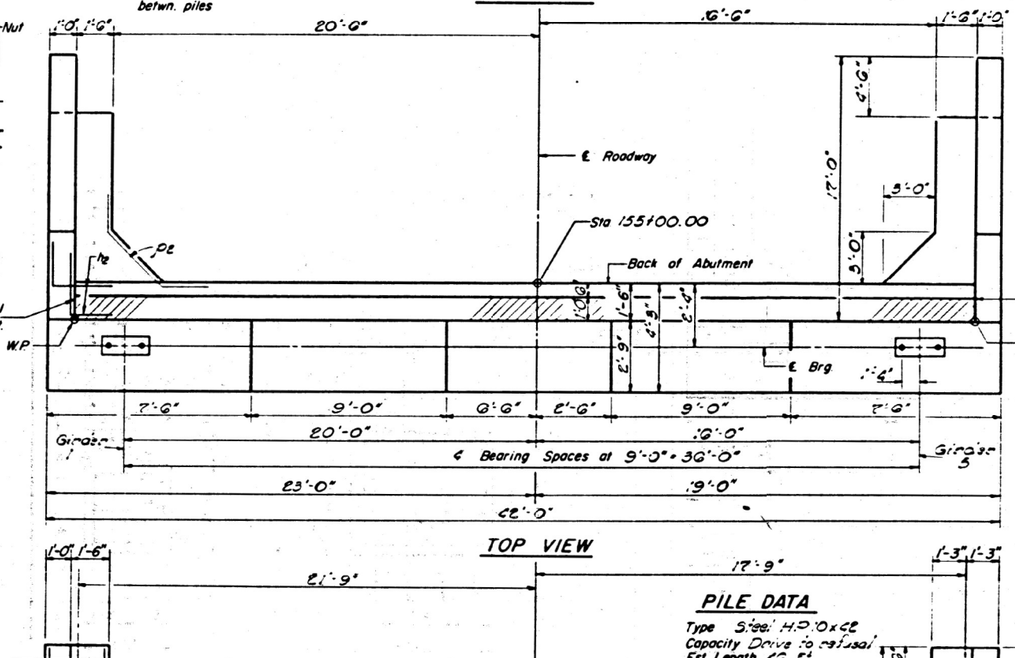
A-9

2-1-66, 8-1-70

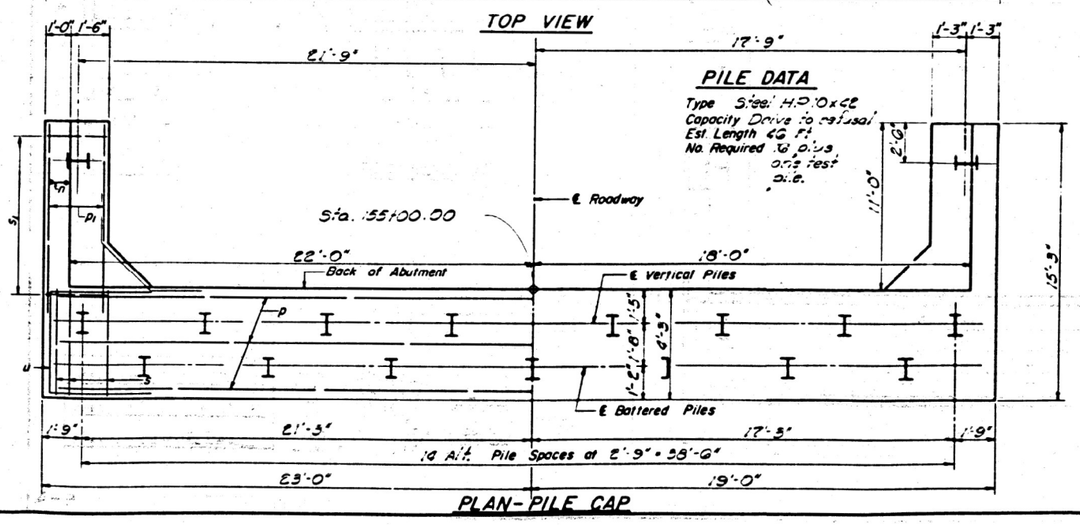
Marched area to be poured after superstructure forms have been removed.



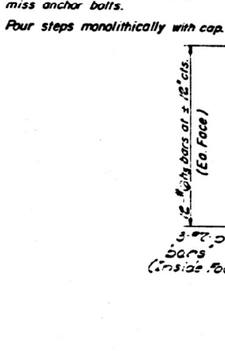
ELEVATION



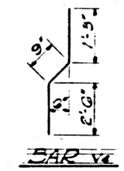
TOP VIEW



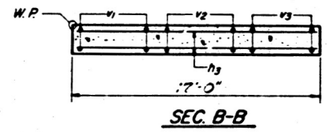
PLAN-PILE CAP



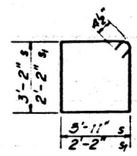
WING WALL ELEVATION
Reinforcement



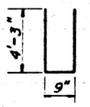
BAR v4



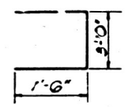
SEC. B-B



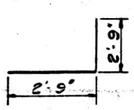
BARS s & s1



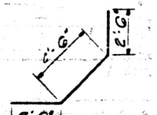
BAR n



BAR u



BAR h2



BAR p2

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	6	#6	20'-9"	
h1	32	#5	20'-9"	
h2	40	#6	5'-6"	
h3	32	#6	16'-9"	
n	26	#5	9'-3"	
p	8	#7	41'-9"	
p1	12	#7	15'-0"	
p2	6	#7	9'-6"	
s	46	#4	16'-11"	
s1	26	#4	9'-5"	
u	8	#6	6'-0"	
v	32	#5	9'-6"	
v1	24	#4	11'-6"	
v2	24	#4	10'-9"	
v3	24	#4	10'-3"	
v4	61	#4	6'-6"	
Class X Concrete			Cu. Yds.	60.6
Reinforcement Bars			Lbs.	6050
Steel Piles (14"P 10x42)			Lin. Ft.	936
Test Piles (Steel 14"P 10x42)			Ea.	1

EAST ABUTMENT
WEST 30 CANES
F.A.I. RT. 24 SEC. 44-23
JOHNSON COUNTY
STA. 151+50.00

FILE NAME: L:\IDOT\190661\0WO - 18\Dra\Structures\CADD Sheets\SN 044-0029 & 0030\040 0029-0030 Existing Plans.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:40:02 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 40 OF 49 SHEETS | STA. | TO STA.

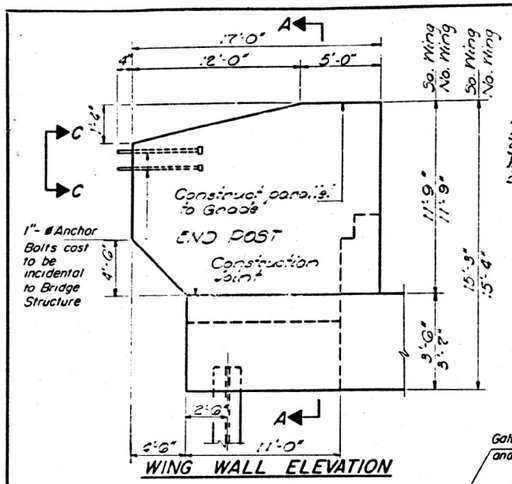
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	121
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

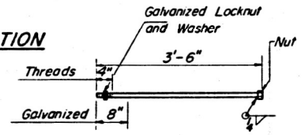
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	44-2B	JOHNSON	109	38
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2-3
34 SHEETS

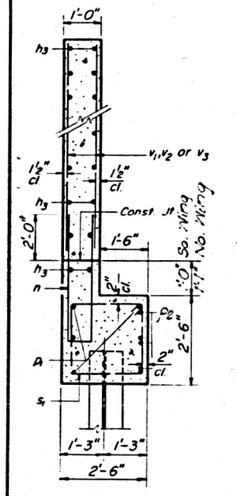
FOR INFORMATION ONLY



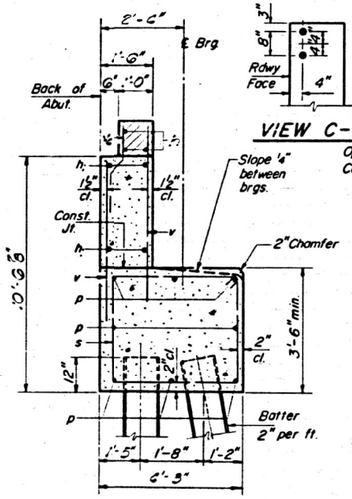
WING WALL ELEVATION



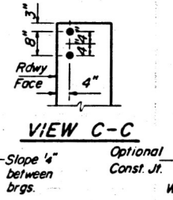
1" ø ANCHOR BOLT



SEC. A-A



SEC. THRU ABUT.

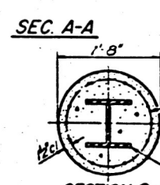


VIEW C-C

Slope ¼" between brgs.

Optional Const. Jt.

W.P.



SECTION C-C
3'-0" Concrete Encasement

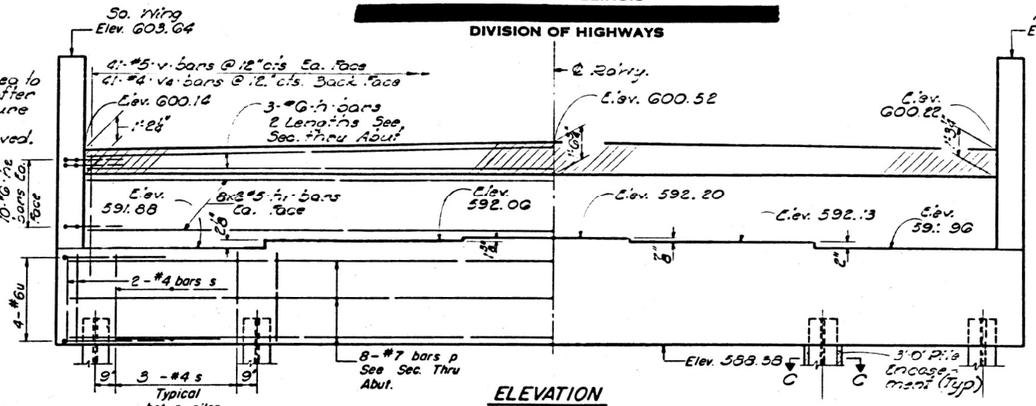
Welded wire fabric 6"x6 mesh #4 wire-weighing 58#/100 sq.ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

DESIGNED	James Piper
CHECKED	Ravi K. Mallur
DRAWN	J. SCHNELLER
CHECKED	Ravi K Mallur

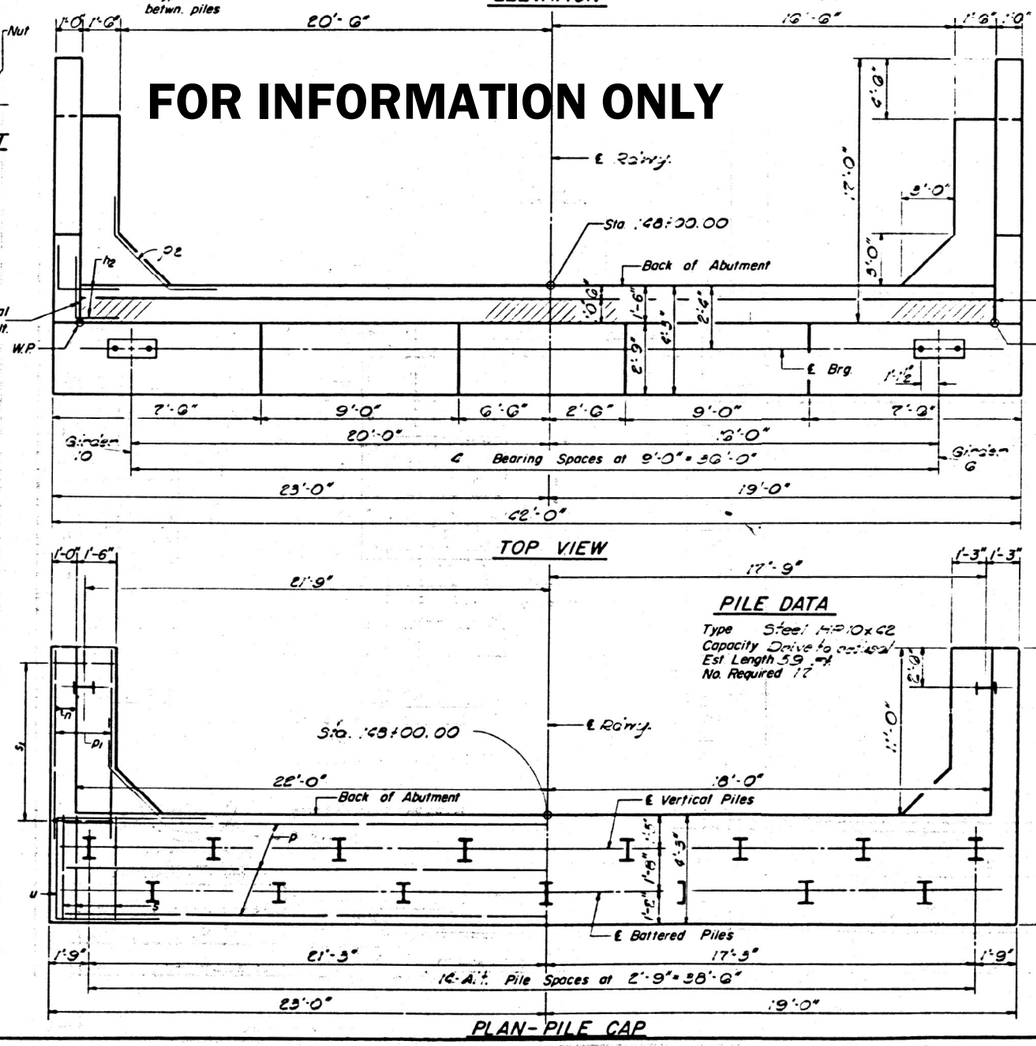
EXAMINED — Dec 17 1970
PASSED — H. B. Zumwalt, ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
APPROVED — Richard V. Mallur, CHIEF HIGHWAY ENGINEER

A-9

2-1-66, 8-1-70



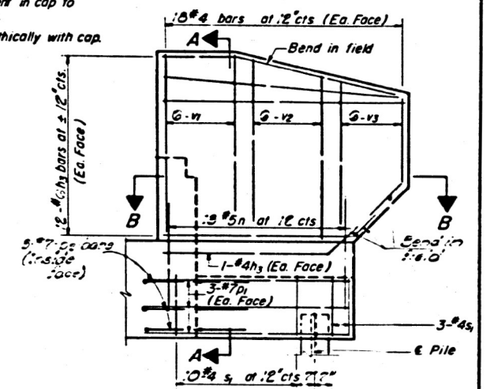
ELEVATION



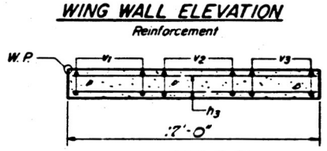
TOP VIEW

PLAN-PILE CAP

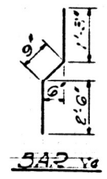
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.



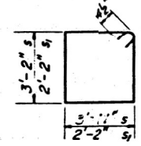
WING WALL ELEVATION
Reinforcement



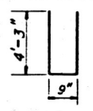
SEC. B-B



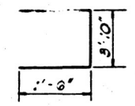
BAR v2



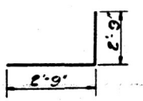
BAR s & s1



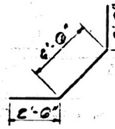
BAR n



BAR u



BAR h2



BAR p2

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1	52	#5	20'-9"	
h2	60	#6	5'-6"	
h3	52	#6	10'-9"	
n	26	#5	9'-5"	
p	8	#7	61'-9"	
p1	12	#7	13'-0"	
p2	6	#7	9'-6"	
s	66	#4	12'-11"	
s1	26	#4	9'-5"	
u	8	#6	6'-0"	
v	82	#5	9'-6"	
v1	26	#4	11'-6"	
v2	26	#4	10'-3"	
v3	26	#4	10'-5"	
v2	41	#6	6'-6"	
Class X Concrete			Cu. Yds.	59.3
Reinforcement Bars			Lbs.	6050
Steel Piles H-10x42			Lin. Ft.	1003

WEST ABUTMENT
EAST BD. LANES
F.A.I. RT. 24 SEC. 44-2,3
JOHNSON COUNTY
STA. 151+50.00

FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\041 0029-0030 Existing Plans.dgn

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	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:40:11 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 41 OF 49 SHEETS | STA. | TO STA.

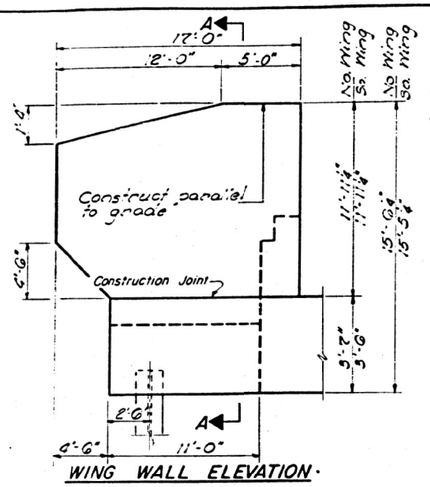
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	122
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 44-24	44-2B	JOHNSON	109	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 24
36 SHEETS

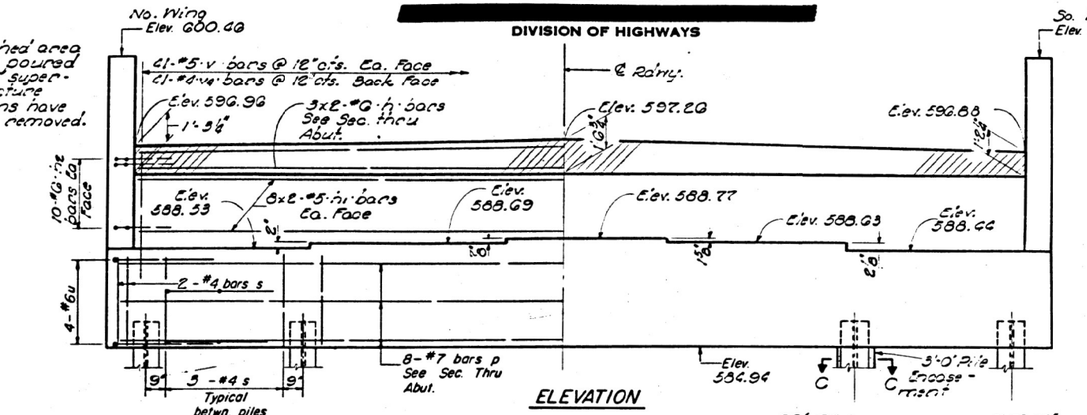
STATE OF ILLINOIS
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

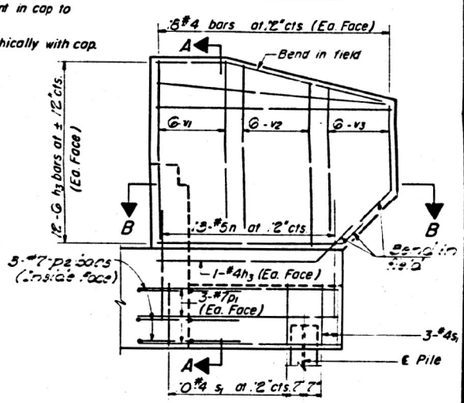


WING WALL ELEVATION

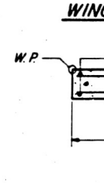
Matched area to be poured after superstructure forms have been removed.



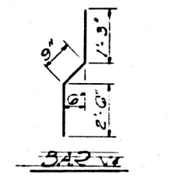
ELEVATION



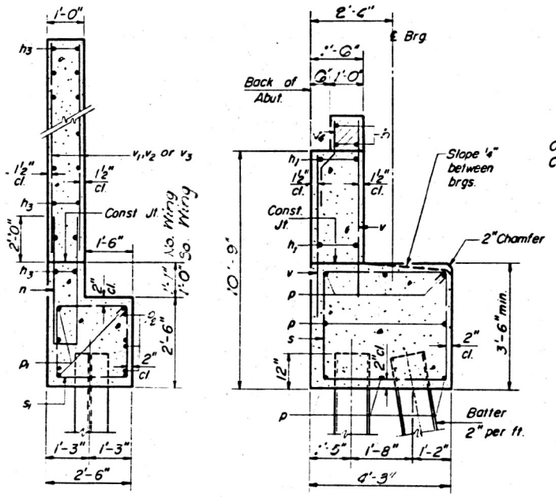
WING WALL ELEVATION
Reinforcement



SEC. B-B



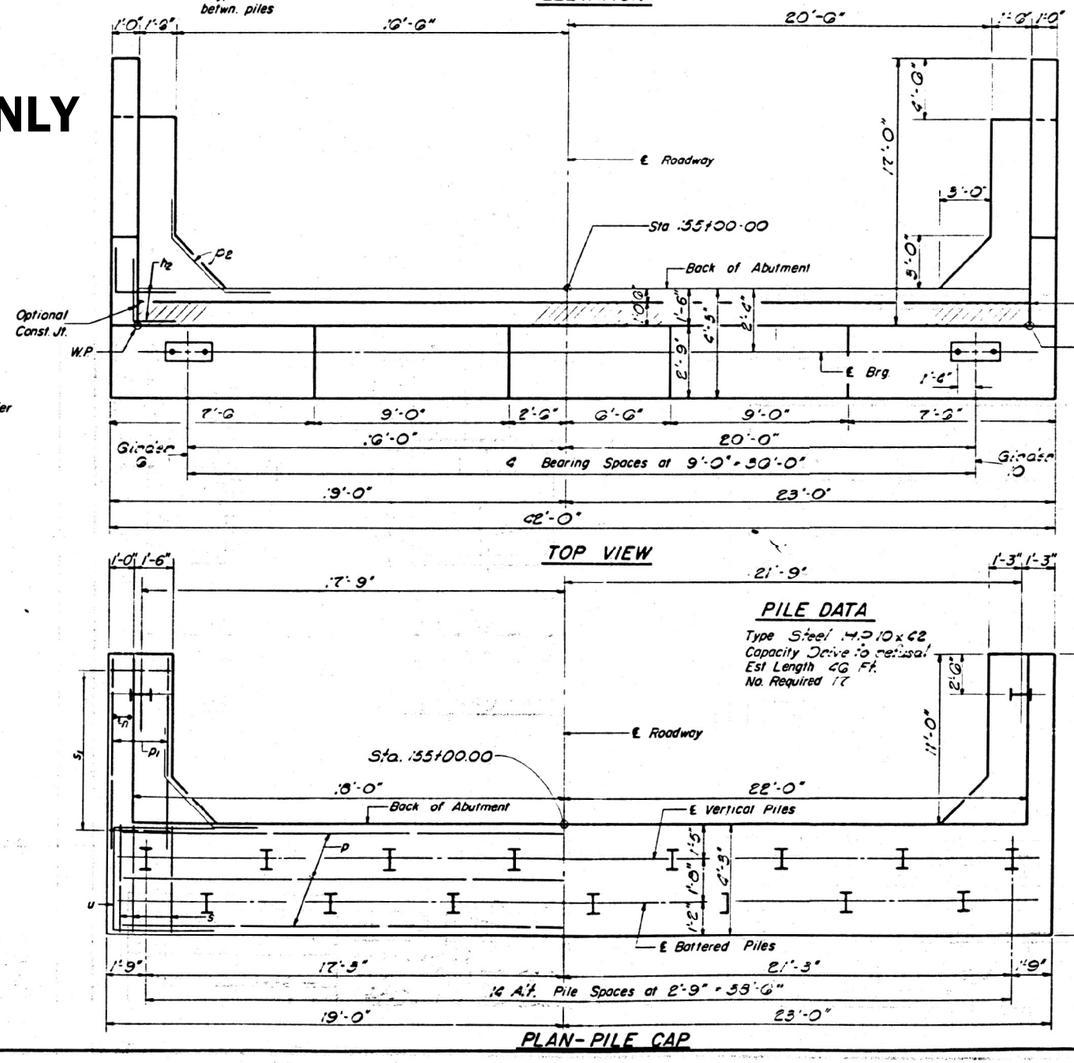
BAR v2



SEC. A-A

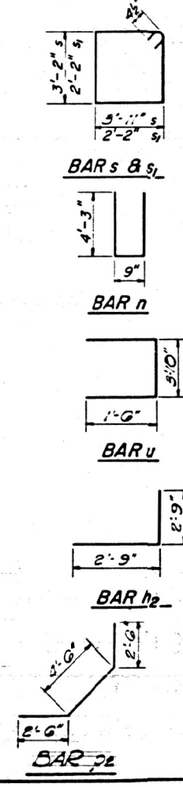
SEC. THRU ABUT.

Note:
For Pile Encasement Detail See Sheet # 23.



TOP VIEW

PLAN-PILE CAP



BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	6	#6	20'-9"	
h1	52	#5	20'-9"	
h2	40	#6	5'-6"	
h3	52	#6	12'-9"	
n	20	#5	9'-3"	
p	8	#7	41'-9"	
p1	12	#7	13'-0"	
pz	6	#7	9'-2"	
s	46	#4	16'-11"	
s1	20	#4	9'-5"	
u	9	#6	6'-10"	
v	82	#5	9'-6"	
v1	24	#4	11'-6"	
v2	24	#4	10'-3"	
v3	24	#4	10'-3"	
v4	41	#4	6'-6"	
Class X Concrete			Cu. Yds.	20.6
Reinforcement Bars			Lbs.	2050
Steel Piles (HP10x42)			Lin. Ft.	782

EAST ABUTMENT
EAST BD LANES
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 751+50.00

DESIGNED	James Pinet		
CHECKED	Ravi K Mathur		
DRAWN	J. SCHNELLER		
CHECKED	Ravi K Mathur		

EXAMINED Dec. 17 1970
PASSED H.G. Bammann
APPROVED Richard H. Gutterman

A-9 2-1-66, 8-1-70

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:40:22 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 42 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	123
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: L:\IDOT\190661\0WO 18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\0042 0029-0030 Existing Plans.dgn

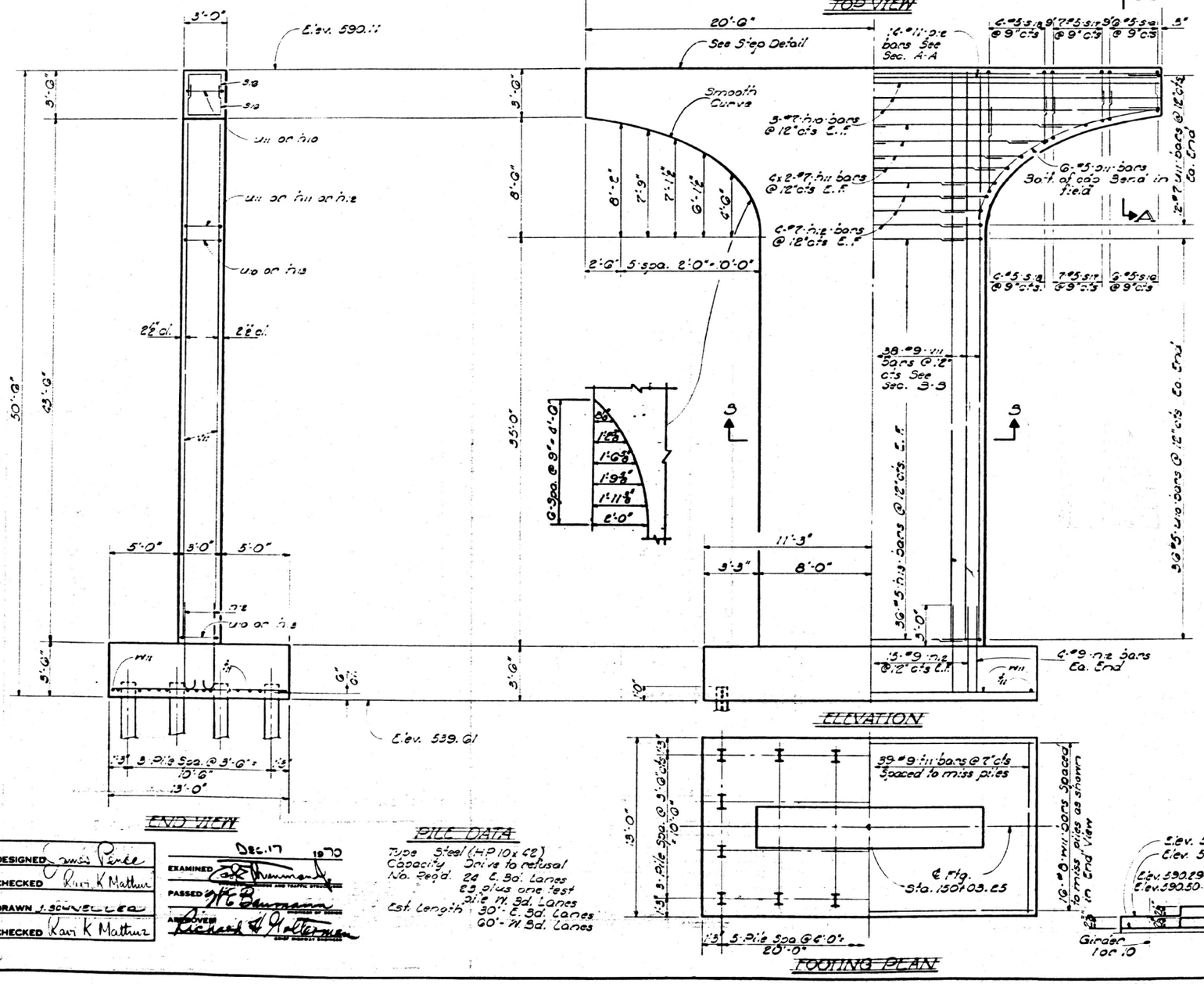
Notes:
Space reinforcement in cap to miss anchor bolts.
All bars shall have standard 45° chamfers except as noted.
Four sides monolithically with cap.

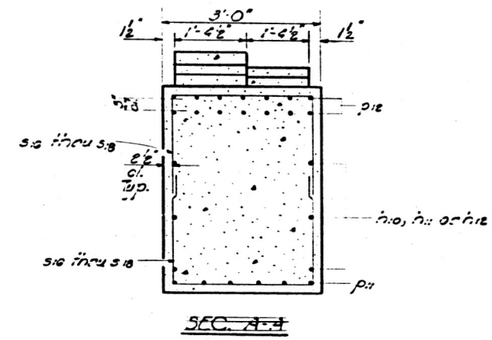
FOR INFORMATION ONLY

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 0044	44-28	JOHNSON	109	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 20
34 SHEETS





TWO PIERS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
h:6	12	#7	40'-8"	
h:11	32	#7	17'-9"	
h:12	10	#7	15'-0"	
h:13	124	#5	15'-0"	
n:2	76	#9	7'-3"	
p:1	24	#5	17'-0"	
p:2	28	#11	40'-8"	
S:6	48	#5	8'-1"	
S:7	56	#5	10'-3"	
S:8	32	#5	12'-7"	
t:1	78	#9	12'-3"	
U:5	124	#5	6'-3"	
U:11	68	#7	9'-5"	
V:11	76	#9	46'-9"	
W:11	32	#8	22'-2"	
Class X Concrete		Cu. Yds	276.7	
Reinforcement Bars		Lbs	32,010	
Steel Piles (H.P 10x42)		Lin. Ft.	2,100	
Test Piles (H.P 10x42)		Ea.	1	

DESIGNED Amir Peikar
CHECKED Ravi K Mathur
DRAWN J. SCHUELLER
CHECKED Ravi K Mathur

EXAMINED Dec. 17 1970
PASSED
APPROVED

BTCB C
F.A.I. RTE. 64 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

STATE OF ILLINOIS

DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 24	44-2B	JOHNSON	109	44

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT

SHEET NO. 29

34 SHEETS

COUNTY JOHNSON
Boring No. 1-S
Station 150+93
Offset 43 FEET RIGHT
Surface Water El. NONE
Groundwater El. at Completion - -
After - Hours -

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.9	0		
SOFT TO VERY SOFT VERY MOIST TO WET BROWN SILTY CLAY LOAM A-4(8)			
547.4	-5		
VERY SOFT WET BROWN MOTTLED GREY ORGANIC CLAY LOAM A-4(8)	2	0.2B	27
541.9	-10		
MEDIUM MOIST GREY ORGANIC CLAY -6(12)	4	0.8B	23
	6	0.7B	21
	5	0.8B	21
	-15		
	5	0.8B	21
	6	0.8B	20
	-20		
	7	0.8B	21
	-25		

(SEE PRECEDING COLUMN)

Elevation	N	Qu t/s.f.	w (%)
	7	0.9B	21
527.4	-30		
STIFF MOIST GREY ORGANIC CLAY TO CLAY LOAM A-6(9)	8	1.0B	21
524.9			
MEDIUM VERY MOIST DARK GREY CLAY A-7-6(15)	7	0.8B	24
522.4	-30		
MEDIUM VERY MOIST DARK GREY ORGANIC SILTY CLAY TO CLAY A-6(12) to A-7-6(13)	4	0.6B	33
519.9			
DENSE TO VERY DENSE MOIST BROWNISH GREY AND YELLOW WEATHERED BROKEN SANDSTONE WITH CLAY LOAM BINDER	33	-	20
	-35	100 in	2"
514.7		100 in	2"
HARD DRY GREY MOTTLED BROWN COARSE GRAINED SANDSTONE	-40	CORED 90% RECOVERY	
509.7			
BOTTOM OF HOLE = 43.2 FEET			
FREE WATER ENCOUNTERED AT 2.0 FEET	-45		

COUNTY JOHNSON
Boring No. 2-S
Station 150+21
Offset 50 FEET RIGHT
Surface Water El. NONE
Groundwater El. at Completion 550.3
After 24 Hours 551.3

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 553.3	0		
SOFT VERY MOIST BROWN SILTY CLAY LOAM A-4(8)			
550.3	-3		
SOFT WET BROWN MOTTLED GREY CLAY LOAM A-4(8)	3	0.1P	26
547.8	-5		
MEDIUM VERY MOIST BROWN MOTTLED GREY SANDY CLAY LOAM A-4(8)	4	0.8S	19
545.3	-10		
	4	0.6B	26
MEDIUM TO STIFF MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10)	-15		
	6	1.0B	19
537.8	-20		
	7	1.2B	18
	-25		
	5	0.7B	20
532.8	-30		
(SEE NEXT COLUMN)	4	0.5B	23

Elevation	N	Qu t/s.f.	w (%)
	5	0.6B	21
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10)	-25		
	6	0.7B	21
522.8	-30		
SOFT VERY MOIST ORGANIC GREY SILTY CLAY TO CLAY A-6(10-11)	5	0.3B	28
520.3			
MEDIUM VERY MOIST ORGANIC GREY SILTY CLAY TO CLAY LOAM A-6(10-11)	8	0.7B	25
517.8	-35		
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11)	8	0.9B	22
512.8	-40		
MEDIUM VERY MOIST GREY CLAY A-7-6(14-15)	7	0.7S	45
510.3			
DENSE TO HARD MOIST TO DAMP BROWNISH YELLOW AND GREY WEATHERED SANDSTONE	49	-	26
	-45	100 in 6"	
		100 in 5"	
504.8	-50		
BOTTOM OF HOLE = 48.5 FEET DURING DRILLING IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 5.0 FEET			

DESIGNED James Feree
CHECKED Ravi K. Mattu
DRAWN J. SCHNELLER
CHECKED Ravi K. Mattu

EXAMINED Dec. 17 1970
PASSED W. E. Bunsen ENGINEER OF DESIGN
APPROVED Richard H. Gutterman CHIEF HIGHWAY ENGINEER

N-Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 # hammer falling 30"

Qu-Unconfined Compressive Strength - t/sf

w-Water Content - percentage of oven dry weight - %

Type failure
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

COUNTY JOHNSON
Boring No. 3-S
Station 151+11
Offset 48 FEET RIGHT
Surface Water El. NONE
Groundwater El. at Completion 549.5
After - Hours -

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.5	0		
VERY SOFT VERY MOIST BROWN CLAY LOAM A-4(8-9)			
547.0	-5		
BLACK ROTTEN WOOD	15	-	-
544.5	-10		
STIFF TO MEDIUM MOIST GREY MOTTLED BROWN CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL	7	1.8B	19
	5	0.5B	21
	6	0.5B	17
	-15		
	6	0.5B	24
	-20		
	5	0.7B	18

Elevation	N	Qu t/s.f.	w (%)
529.5			
MEDIUM MOIST GREY MOTTLED BROWN SILTY CLAY LOAM A-6(8-9)	7	0.9B	20
527.0	-25		
MEDIUM MOIST GREY SILTY CLAY LOAM TO CLAY LOAM A-6(8-9) WITH SOME GRAVEL	1	0.2B	28
	6	0.7B	22
522.0	-30		
MEDIUM MOIST GREY SILT TO SILT LOAM A-4(8)	18	1.1B	21
519.5			
MEDIUM MOIST GREY SILTY CLAY LOAM TO CLAY LOAM A-6(8-9) WITH SOME GRAVEL	9	1.1B	16
517.0	-35		
VERY STIFF MOIST MIXED BROWN CLAY A-7-6(20+)	17	2.6B	19
514.5			
MEDIUM MOIST GREY CLAY LOAM TO SILTY CLAY LOAM A-6(8-9) WITH SOME GRAVEL	7	0.7B	20
	-40		
	8	0.7B	19
	-45		
	9	0.9B	17
	-50		
	5	0.7B	26
502.5	-55		
STIFF MOIST GREY CLAY LOAM TO SILTY CLAY LOAM A-6(8-9)	9	1.1B	20
	10	1.6B	18
497.0	-65		
STIFF MOIST GREY CLAY LOAM TO SILTY CLAY LOAM A-6(8-9) WITH SILT SEAMS	15	1.0P	19
494.5			
MEDIUM MOIST GREY SILTY CLAY LOAM A-4(8)	7	0.8B	20
492.0	-70		
	10	1.0B	19
MEDIUM TO STIFF MOIST GREY CLAY LOAM TO SILTY CLAY LOAM A-6(8-9)	9	1.3B	18
487.0	-85		
STIFF MOIST GREY CLAY A-6(12-13)	9	1.3B	20
484.5			
VERY SOFT WET GREY CLAY A-7-6(15+)	9	0.1P	31
482.0	-95		
MEDIUM TO VERY STIFF MOIST GREY CLAY TO CLAY LOAM A-6(12-13)	6	0.4B	23
478.5			
VERY STIFF WET GREY CLAY TO CLAY LOAM A-6(12-13)	11	1.9B	20
477.0	-105		
HARD WET ROTTEN SANDSTONE	100 in 6"		
476.5			
BOTTOM OF HOLE = 76.0 FEET			

COUNTY JOHNSON
Boring No. 4S
Station 151+83
Offset 60' RIGHT MEDIAN
Surface Water El. NONE
Groundwater El. at Completion 554.0
After - Hours -

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 554.0	0		
SOFT MOIST BROWN SILTY CLAY LOAM TO CLAY LOAM A-4(8)			
551.0	-3		
SOFT VERY MOIST BROWN MOTTLED GREY SILTY CLAY LOAM A-4(8)	4	0.3B	26
548.5	-5		
MEDIUM VERY MOIST TO WET BROWN MOTTLED GREY SANDY CLAY LOAM A-2-4(3)	5	0.4S	20
	3	0.4S	21
	-10		
SOFT WET GREY SANDY CLAY LOAM A-2-4(0) WITH SOME GRAVEL	5	0.3S	18
540.0	-15		
STIFF MOIST GREY TO OLIVE SILTY CLAY LOAM TO CLAY LOAM A-6(10) WITH SOME GRAVEL	15	1.3S	17
538.5			
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11)	5	0.5B	20
	4	0.5B	23
	-20		
STIFF VERY MOIST ORGANIC GREY SANDY CLAY LOAM WITH SOME GRAVEL	11	1.1S	14
531.0			
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11)	5	0.7B	20
528.5	-25		
MEDIUM MOIST ORGANIC GREY SILTY CLAY TO CLAY A-6(11-12)	4	0.7B	22
526.0			
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11)	6	0.9B	22
	-30		
	5	0.7B	20
	-35		
	6	0.6B	20
	-40		
	8	0.7B	18
516.0			
MEDIUM MOIST ORGANIC GREY CLAY A-6(12)	8	0.7B	25
513.5	-45		
STIFF MOIST ORGANIC GREY CLAY A-7-6(13-14) WITH SOME GRAVEL	7	1.1B	24
511.0			
STIFF VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10/11) WITH SOME GRAVEL MIXED	8	1.2B	18
	-65		

Elevation	N	Qu t/s.f.	w (%)
GROUNDWATER 554.0	0		
Ground Surface 515.5			
STIFF MOIST ORGANIC GREY CLAY A-7-6(13-14) WITH SOME GRAVEL	7	1.1B	24
511.0			
STIFF VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL MIXED	8	1.2B	18
-45	-5		
	10	1.2B	18
	-15		
	9	1.2B	19
503.5	-20		
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL	9	0.9B	18
	-30		
	10	0.9B	19
499.0	-35		
MEDIUM TO STIFF VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(10-11)	9	0.8B	19
	-40		
	10	1.2B	18
	-45		
	9	1.0B	19
MEDIUM VERY MOIST ORGANIC GREY CLAY LOAM TO CLAY WITH BROKEN SANDSTONE AND GRAVEL	14	0.8B	19
488.5	-55		
MEDIUM TO STIFF VERY MOIST ORGANIC GREY SILTY CLAY TO CLAY LOAM A-6(10) WITH SOME GRAVEL	11	0.9B	19
	-60		
	9	1.0B	20
483.5	-65		
STIFF TO VERY STIFF VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-6(11-12) WITH SOME SAND SEAMS	15	1.0B	20
	-70		
	16	1.6B	21
478.5	-75		
MEDIUM VERY MOIST ORGANIC GREY CLAY TO CLAY LOAM A-7-6(13) WITH MIXED ROTTEN SANDSTONE	14	0.5B	43
476.0			
VERY STIFF VERY MOIST ORGANIC DARK GREY CLAY LOAM A-6(10) WITH ROTTEN SANDSTONE	100	1.6S	15
	-80		
474.0	-85	100 in 5"	
HARD MOIST DAMP COARSE GRAINED ROTTEN SANDSTONE		CORED 25% RECOVERY	
469.5	-90		

FOR INFORMATION ONLY

BORING DATA
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 044-0029 (E.B.) & 0030 (W.B.)
	DRAWN - BLH	REVISED -		
PLOT SCALE = N/A	CHECKED - JTH	REVISED -		SCALE: SHEET 44 OF 49 SHEETS STA. TO STA.
PLOT DATE = 3/28/2023 (7:40:42 AM)	DATE - 03/03/2023	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	125
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

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FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\044 0029-0030 Existing Plans.dgn

STATE OF ILLINOIS

DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
044	44-28	JOHNSON	109	45

SHEET NO 30

34 SHEETS

COUNTY JOHNSON

Boring No. S-5

Station 151+61

Offset 48' LEFT

Ground Surface 554.0

Elevation	N	Qu t/s.f.	w (%)
	3	0.4S	28
548.5			
-5			
	4	0.4S	23
546.0			
	7	-	18
-10			
543.5			
	6	0.7B	21
	5	0.6B	22
-15			
	5	0.6B	18
	4	0.6B	19
-20			
533.5			
	6	0.7B	21

Surface Water El. NONE

Groundwater El. at Completion / After 72 Hours 552.0 / 547.5

Elevation	N	Qu t/s.f.	w (%)
	6	0.8B	17
-25			
	5	0.4B	22
-30			
	7	1.0B	20
-35			
	5	0.6B	25
	6	1.0B	20
-45			
	8	1.2B	18
-50			
	10	1.4B	17
	8	1.6B	28
-65			
503.5			
	9	1.3B	17
-70			
498.5			
	9	0.9B	19
	10	1.2B	17
-80			
	9	1.0B	17

SEE NEXT COLUMN

MEDIUM MOIST BROWN TO GRAY SILT LOAM TO SILTY CLAY LOAM A-4(8)

MEDIUM MOIST MOTTLED BROWN AND GRAY SILTY LOAM A-4(2)

LOOSE WET RED COARSE GRAINED SAND

MEDIUM MOIST BROWN TO GRAY SILT LOAM TO CLAY LOAM A-6(8-9)

SEE NEXT COLUMN

MEDIUM MOIST GRAY SILTY CLAY TO CLAY LOAM A-6(8-9)

SEE VERY STIFF MOIST GRAY CLAY A-6(12-13)

STIFF MOIST GRAY SILTY CLAY TO CLAY A-6(11-12)

STIFF VERY MOIST ORGANIC GRAY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL

STIFF MOIST GRAY SILTY CLAY TO CLAY A-6(10-12) WITH SOME GRAVEL

COUNTY JOHNSON

Boring No. S5

Station 151+93

Offset 48 FEET

Surface Water El. NONE

Groundwater El. at Completion / After 72 Hours 552.0 / 547.5

Elevation	N	Qu t/s.f.	w (%)
	9	0.6B	22
-65			
	9	1.3B	18
486.0			
	9	1.2B	20
-70			
	8	1.2B	21
	7	0.9B	21
-75			
	9	1.2B	20
476.0			
	20	1.6S	32
-80			
	100	BLOWS 0"	
-85			
		18" CORE RECOVERY	
-90			
		22" CORE RECOVERY	
461.7			

STIFF VERY MOIST GRAY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL

VERY STIFF MOIST GRAY CLAY A-7-6(18)

HARD MOIST COARSE GRAINED SANDSTONE (ROTTEN)

BOTTOM OF HOLE = 69.3 FEET

DURING DRILLING OPERATIONS IT WAS NOTED THAT FREE WATER WAS ENCOUNTERED AT 48.0 FEET

COUNTY JOHNSON

Boring No. S-6

Station 151+61

Offset 80 FEET LEFT

Ground Surface 556.0

Elevation	N	Qu t/s.f.	w (%)
	12	-	5
-5			
	14	-	10
547.0			
	22	0.5S	4
-15			
	9	0.8S	16
542.0			
	5	0.5B	30
539.5			
-15			
	5	0.8B	29
537.0			
	6	0.7B	23
534.5			
	7	1.0B	19

Surface Water El. NONE

Groundwater El. at Completion / After — Hours 523.0 / —

Elevation	N	Qu t/s.f.	w (%)
	10	1.2B	17
-25			
	10	1.0B	17
-30			
	11	1.0B	17
-35			
	13	1.0B	17
	14	2.0B	16
-45			
	16	1.6B	17
-50			
	12		
-65			
	11	1.0B	17
-70			
	9	1.0B	17
	15	1.8B	21
-80			
	14	1.6B	20
-85			
	13	1.1B	17
-90			
	11	1.0B	20
-95			
	41	1.5B	20

SEE PREVIOUS COLUMN

VERY STIFF TO STIFF MOIST GREY CLAY LOAM A-6(11-12) WITH SOME GRAVEL

MEDIUM VERY MOIST GREY CLAY LOAM A-4(7)

VERY STIFF MOIST GREY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL

SEE NEXT SHEET.

COUNTY JOHNSON

Boring No. S-6

Station 151+61

Offset 80 FEET LEFT

Ground Surface 470.0

Elevation	N	Qu t/s.f.	w (%)
	11	1.0B	30
472.0			
	41	1.5B	20
-85			
469.5			

STIFF DARK BROWN GREY CLAY LOAM TO SILTY CLAY LOAM WITH GRAVEL

MEDIUM DENSE DARK GREY BROWN SANDSTONE WITH CLAY SEAMS

BOTTOM OF HOLE = 469.5 FEET (REFUSAL)

DURING DRILLING IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 90.0 FEET

-90

Elevation	N	Qu t/s.f.	w (%)
	16	0.5S	17
	18	2.0B	16
-45			
509.5			
	11	1.1B	20
-70			
484.5			
	12	1.2B	21
-50			
504.5			
	10	0.9B	21
-75			
479.5			
	15	1.4B	19
-55			
	13	1.4B	16
-60			
	14	1.5B	18
-85			
472.0			
	13	1.2B	17
-90			

Surface Water El. NONE

Groundwater El. at Completion / After — Hours 523.0 / —

Elevation	N	Qu t/s.f.	w (%)
	12		
-65			
	11	1.0B	17
	9	1.0B	17
	15	1.8B	21
-80			
	14	1.6B	20
-85			
	13	1.1B	17
	95	1.3B	41
-90			
	11	1.0B	20
-95			
	41	1.5B	20

STIFF MOIST DARK GRAY SILTY CLAY A-6(10) WITH SOME GRAVEL

STIFF MOIST DARK GREY CLAY TO CLAY LOAM A-6(9-10)

STIFF MOIST DARK GREY SILTY CLAY A-6(10-11) WITH BROKEN SANDSTONE

SEE NEXT SHEET.

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Samplor 12" with 140 # hammer falling 30".

Qu-Unconfined Compressive Strength-t/sf

w-Water Content-percentage of oven dry weight-%.

Type failure
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

DESIGNED James Ponce

CHECKED Ravi K Mallu

DRAWN J. SCHNELLER

CHECKED Ravi K Mallu

EXAMINED DEC. 17 1970

PASSED R E Brunsma

APPROVED Fred H Hottenman

FOR INFORMATION ONLY

BORING DATA
F.A.I. RT. 24 SEC. 44-28
JOHNSON COUNTY
STA. 151+50.00

FILE NAME: L:\DOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\045 0029-0030 Existing Plans.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
	DRAWN - BLH	REVISED -
PLOT SCALE = N/A	CHECKED - JTH	REVISED -
PLOT DATE = 3/28/2023 (7:40:51 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 45 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	126
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS

DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-24	44-2B	JOHNSON	109	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 31

36 SHEETS

COUNTY JOHNSON

Boring No. 7 S
Station 150+30 (MED.)
Offset 60 FEET LEFT

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 554.5	0		
MEDIUM MOIST BROWN SILT LOAM A-4(8)			
	7	-	11
549.0	-5		
MEDIUM TO STIFF MOIST BROWN CLAY LOAM A-4(8)			
	13	0.5S	9
	13	1.2S	19
544.0	-10		
STIFF TO MEDIUM MOIST MOTTLED GREY TO GREY CLAY TO CLAY LOAM A-6(9-13)			
	8	1.0S	22
	6	0.6S	21
539.0	-15		
STIFF MOIST GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL			
	9	1.4S	16
	7	1.0S	20
	-20		
	8	1.0S	18

Surface Water El. NONE
Groundwater El. at Completion 538.5
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
SEE PREVIOUS COLUMN			
	10	1.0S	18
529.0	-25		
MEDIUM MOIST GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL			
	8	0.8S	19
	6	0.6S	19
	-35		
	6	0.6S	19
	-40		
STIFF MOIST GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL	8	1.1S	19
	8	1.0S	19
	-45		

COUNTY JOHNSON

Boring No. 7 S
Station 150+30 (MED)
Offset 60 FEET LEFT

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 514.0	0		
STIFF MOIST GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL	8	1.1S	19
	9	1.2S	19
-45			
	8	1.1S	21
-50			
	11	1.2S	18
	12	1.6S	18
-55			
	15	1.9S	16
476.5			
STIFF MOIST GREY CLAY A-7-6(15+)	11	1.4S	18
MEDIUM MOIST DARK GREY CLAY LOAM A-4(8-9)			
474.0			
HARD DRY DARK GREY SANDSTONE	11	1.3S	19
BOTTOM OF HOLE = 80.5 FEET			
-60			
	9	1.1S	19
-65			
	12	1.2S	18
-70			
	12	1.6S	18
-75			
	11	1.1S	18
-80			
	100 in 2"		
-85			

Surface Water El. NONE
Groundwater El. at Completion 538.5
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
	12	1.2S	18
	12	1.6S	18
	11	1.1S	18
	6	1.0S	20
	12	1.1S	19
	11	1.0S	16
	-	1.2S	20
	-	-	20

DESIGNED Chris Powell
CHECKED Ron Matthes
DRAWN J. SCHNELLER
CHECKED Ron Matthes

EXAMINED Dec. 17 1970
PASSED H.C. Beermann
APPROVED Richard W. Holterman

COUNTY JOHNSON

Boring No. 8 S
Station 149+80 (MED.)
Offset 60' LEFT CL. MEDIAN

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 553.5	0		
MEDIUM VERY MOIST BROWN SILTY CLAY LOAM A-6(8)			
	3	0.6B	29
548.0	-5		
MEDIUM TO SOFT VERY MOIST GREY MOTTLED BROWN CLAY LOAM A-4(8) WITH SOME ORGANIC MATTER			
	4	0.6B	23
	3	0.3B	23
543.0	-15		
MEDIUM MOIST GREY MOTTLED BROWN TO GREY CLAY LOAM A-4(8) WITH SOME ORGANIC MATTER			
	4	0.7B	24
	4	0.6B	32
538.0	-15		
MEDIUM MOIST TO VERY MOIST GREY SILTY CLAY LOAM TO CLAY LOAM A-4(8)			
	4	0.7B	21
	5	0.7B	21
530.0	-30		
MEDIUM VERY MOIST GREY SILTY CLAY A-6(11-12)			
	5	0.7B	21

Surface Water El. NONE
Groundwater El. at Completion 548.5
After 98 Hours 548.5

Elevation	N	Qu t/s.f.	w (%)
530.5			
MEDIUM WET GREY SANDY CLAY LOAM A-4(8) WITH SOME ORGANIC MATTER	15	0.7	
528.5	-25		
MEDIUM WET GREY SAND LOAM A-2-4(0)			
	24	0.7	
525.5			
MEDIUM WET GREY SAND LOAM AND GRAVEL	20	-	11
523.0	-30		
SOFT VERY MOIST GREY SILT LOAM A-4(8)	11	0.4	26
520.5			
MEDIUM MOIST GREY CLAY LOAM A-4(8)	8	1.4	16
518.0	-35		
MEDIUM MOIST GREY SILT LOAM A-6(9-10)	9	1.1	20
515.5			
MEDIUM MOIST GREY CLAY LOAM A-4(8) WITH SOME ORGANIC MATTER	9	1.3	20
	-40		
	6	1.1	
510.5			
MEDIUM MOIST TO VERY MOIST CLAY TO CLAY LOAM A-6(10-12)	9	0.9	22
	-45		

COUNTY JOHNSON

Boring No. 11 S
Station 148+40 (MED.)
Offset 52 FEET RIGHT

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 542.5	0		
BROWN SIL - OXIDIZED PARTICLES			
SPECIMEN #A-10S-1-S 542.0		.52	32
BROWN SIL-TOP 1" CHANGING TO SIOL-OXIDIZED	-25		
SPECIMEN #A-10S-2-S 517.5	-5	.51	34
MOTTLED GRAY SIC TO CLAY			
SPECIMEN #A-10S-3-S 514.0		1.02	21
MOTTLED GRAY-BROWN CLAY-FIRM FEW SILT STREAKS-FEW SMALL STONES	-30		
SPECIMEN #A-10S-4-S 512.5	-10		20
MOTTLED GRAY-BROWN CLAY FIRM			
SPECIMEN #A-10S-5-S 510.0		2.32	24
GREY CLAY- 1" SIL AT TOP	-35		
SPECIMEN #A-10S-6-S 507.5	-15	.69	29
GREY CLAY TOP 1" TO GREY-BROWN ORGANIC SIL BOTTOM			
SPECIMEN #A-10S-7-S 505.0			40
GREY SIL	-60		
SPECIMEN #A-10S-8-1 492.5	-20	.91	24
GREY SAND WITH SANDSTONE-POCKET GREY SAC			
SPECIMEN A-10S-9-S 530.0		.22	13
	-45		

Surface Water El. NONE
Groundwater El. at Completion 547.0
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
530.0			
DENSE TO VERY DENSE DAMP BROWN MOTTLED GREY BROKEN SANDSTONE	60	-	-
	-35		
527.0			
VERY STIFF MOIST BROWN MOTTLED GREY CLAY A-7-6(20) WITH GRAVEL SEAMS	27	3.7	21
524.5			
VERY STIFF DRY BROWN MOTTLED GREY CLAY SHALE	100 in 10"	4.0	12
513.7			
BOTTOM OF HOLE = 28.8 FEET (REFUSAL)	-30		
DURING DRILLING IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 23.0 FEET			

COUNTY

Boring No. 9 S
Station 147+10 (MED.)
Offset 52 FEET RIGHT

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.51	0		
BROWN SIL			
SPECIMEN #A-9S-1-S 550.01			25
GRAY BROWN SIL-SAND STREAKS OXIDIZED			
SPECIMEN #A-9S-2-S 547.51	-5	.42	23
MOTTLED GRAY-BROWN SIC-SOME OXIDATION			
SPECIMEN #A-9S-3-S 545.01		1.48	22
GRAY-BROWN CLAY	-10		
SPECIMEN #A-9S-4-S 542.51		3.27	21
GRAY CLAY - FEW ROCK PARTICLES			
SPECIMEN #A-9S-5-S 540.01		1.39	21
GRAY CLAY - FEW ROCK PARTICLES	-15		
SPECIMEN #A-9S-6-S 537.51		1.10	20
GRAY CLAY - FEW ROCK PARTICLES - FEW SMALL SILT POCKETS			
SPECIMEN #A-9S-7-S 535.01		1.37	21
GRAY CLAY - FEW ROCK PARTICLES	-20		
SPECIMEN #A-9S-8-S 532.51		1.41	20
GRAY CLAY - FEW ROCK PARTICLES			
SPECIMEN #A-9S-9-S 530.01		1.65	21

Surface Water El. —
Groundwater El. at Completion —
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
GRAY CLAY - FEW ROCK PARTICLES			
SPECIMEN #A-9S-10-3 527.51	25	1.18	19
GRAY CLAY - FEW SILT STREAKS - ROCK PARTICLES			
SPECIMEN #A-9S-11-S 525.01		1.92	22
GRAY CLAY - FEW SILT SPECKS			
SPECIMEN #A-9S-12-S 522.51	30	1.92	23
GRAY SILT - ORGANIC - WITH FEW CLAY STREAKS			
SPECIMEN #A-9S-13-S 520.01		2.22	32
MEDIUM MOIST GREY CLAY TO CLAY LOAM A-6(9-10)	-35		
DENSE MOIST BROWN MOTTLED GREY COARSE GRAINED SAND WITH SOME GRAVEL	32	—	-
	5"		
VERY DENSE DAMP BROWN MOTTLED GREY BROKEN SANDSTONE	100 in 4"		
BOTTOM OF HOLE = 37.9 FEET (REFUSAL)	-40		
WASHING PROCEDURE USED BETWEEN 34.0 and 35.5 FEET			
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 # hammer falling 30".

Qu-Unconfined Compressive Strength-t/s.f. w-Water Content-percentage of oven dry weight-%.

Type failure B-Bulge Failure S-Shear Failure E-Estimated Value P-Penetrometer

BORING DATA
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

FOR INFORMATION ONLY

FILE NAME: L:\DOT\190661\WO_18\Draw\Structures\CADD Sheets\SN 044-0029 & 0030\046 0029-0030 Existing Plans.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC		REVISED -
	DRAWN - BLH		REVISED -
PLOT SCALE = N/A	CHECKED - JTH		REVISED -
PLOT DATE = 3/28/2023 (7:41:01 AM)	DATE - 03/03/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0029 (E.B.) & 0030 (W.B.)

SCALE: | SHEET 46 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	127
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* * * * 6-24	44-28	JOHNSON	109	47

SHEET NO 3C
34 SHEETS

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

COUNTY ____

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. ____ Groundwater El. at Completion ____ After ____ Hours
Ground Surface 0				
GRAVEL AND TOPSOIL				
SPECIMEN #A-115-1-S 593.5				
BROWN SILTY SAND FINE SAND				
SPECIMEN #A-115-2-S 583.5 -5		.48	19	
GRAY SILTY SAND- GRAVEL CONTAINS SOME CLAY				
SPECIMEN #A-115-3-S 578.5				
BROWN AND TO GRAY - GRAVEL CLAY SEAMS - LAYERED				
SPECIMEN #A-115-4-S 563.5 -15	TR	4XT	19	
GRAY CLAY - FEW SILT SPECKS SAND STREAKS				
SPECIMEN #A-115-5-S 548.5 -20			23	
GRAY CLAY - FINE ROCK PARTICLES - LARGE ROCK				
SPECIMEN #A-115-6-S 543.5 -25		1.19	19	
GRAY CLAY - FINE ROCK PARTICLES				
SPECIMEN #A-115-7-S 538.5 -30		1.35	22	
GRAY CLAY - FINE ROCK PARTICLES				
SPECIMEN #A-115-8-S 533.5	TR	4XT	19	
GRAY CLAY - FINE ROCK PARTICLES				
SPECIMEN #A-115-9-S 528.5 -40		1.35	20	
GRAY CLAY - FINE ROCK PARTICLES - FEW SILT POCKETS				
SPECIMEN #A-115-10-S 523.5 -45		1.35	20	
GRAY CLAY - FINE ROCK PARTICLES - FEW SILT POCKETS - LARGE STONES				
SPECIMEN #A-115-11-S 518.5 -50		1.35	20	
GRAY SILT - FINE ROCK PARTICLES				
SPECIMEN #A-115-12-S 513.5 -55		1.35	21	
GRAY CLAY - FINE ROCK PARTICLES - FEW SILT POCKETS				
SPECIMEN #A-115-13-S 508.5 -60		1.35	21	
GRAY CLAY - FINE ROCK PARTICLES - FEW SILT POCKETS				
SPECIMEN #A-115-14-S 503.5 -65		1.35	21	
GRAY SILT - FINE ROCK PARTICLES - FEW SILT POCKETS				
SPECIMEN #A-115-15-S 498.5 -70		1.35	21	
MEDIUM TO STIFF MOIST GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL	10	0.9B	22	
	9	1.1B	21	
-60-25				
	10	0.9B	21	
492.0				
MEDIUM MOIST DARK GREY CLAY TO CLAY LOAM A-6(9-10) WITH SOME GRAVEL	10	0.6	21	
-65-25				
489.5				
MEDIUM MOIST DARK GREY SILTY CLAY LOAM TO CLAY LOAM A-6(8-9)	14	0.7E	20	
487.0				
DENSE MOIST BROWN MOTTLED GREY COARSE SAND WITH CLAY AND GRAVEL SEAMS	40	-	9	
-70-25				
484.5				
STIFF MOIST BROWN AND GREY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL	14	1.3B	16	
482.0				
MEDIUM MOIST GREY GRAVEL WITH CLAY LOAM BINDER	29	-	10	
-75-25				
479.5				
MEDIUM MOIST BROWN AND GREY CLAY LOAM A-6(9) WITH GRAVEL	40	0.6B	12	
477.0				
HARD DRY GREY CLAY SHALE		100 in	3"	
BOTTOM OF HOLE = 78.3 FEET (REFUSAL) -80-25				
DURING DRILLING IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 12.5 FEET				

COUNTY ____

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. ____ Groundwater El. at Completion ____ After ____ Hours
Ground Surface 0				
BROWN SILT - FEW ROOTS				
SPECIMEN #A-125-1-S 592.0		.30	17	
BROWN SILT				
SPECIMEN #A-125-2-S 587.0 -5		.66	14	
GRAY BROWN SILT WITH OXIDATION & SAND STREAKS			12	
SPECIMEN #A-125-3-S 582.0	TR	4XT		
GREY SAND GRADING TO SILT WITH SAND STREAKS BOTTOM HALF			9	
SPECIMEN #A-125-4-S 577.0 -15	TR	4XT		
GREY BROWN SILT TO SILT, WITH SILT POCKETS & STREAKS				
SPECIMEN #A-125-5-S 572.0		.85	23	
GREY SILT WITH SAND STREAKS BOTTOM HALF GRAY CLAY				
SPECIMEN #A-125-6-S 567.0 -25		1.25	21	
LIGHT GRAY CLAY SILT SPECKS SOME OXIDATION				
SPECIMEN #A-125-7-S 562.0		.69	20	
GRAY CLAY FEW SILT STREAKS ROCK PARTICLES				
SPECIMEN #A-125-8-S 557.0 -35		1.87	17	
GRAY CLAY				
SPECIMEN #A-125-9-S 552.0		1.26	22	

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. ____ Groundwater El. at Completion ____ After ____ Hours
GRAY CLAY - LARGE ROCK AT CENTER				
SPECIMEN #A-125-10-S 547.0 -45		1.25	18	
GRAY CLAY POCKETS AND STREAKS OF SILT				
SPECIMEN #A-125-11-S 542.0		.75	24	
GRAY CLAY SAND LAYERS & POCKETS				
SPECIMEN #A-125-12-S 537.0 -55		.76	16	
GRAY CLAY TO BOTTOM 1"				
SPECIMEN #A-125-13-S 532.0		.25	21	
GRAY CLAY FEW SILT LAYERS				
SPECIMEN #A-125-14-S 527.0 -65		1.97	19	
GRAY CLAY FEW ROCK FRAGMENTS				
SPECIMEN #A-125-15-S 522.0		2.22	19	
GRAY CLAY FEW ROCK PARTICLES				
SPECIMEN #A-125-16-S 517.0 -75		1.75	23	
GRAY CLAY FEW ROCK PARTICLES FEW SMALL SILT POCKETS				
SPECIMEN #A-125-17-S 512.0		2.22	19	
GRAY CLAY SILT SPECKES AND STREAKS				
SPECIMEN #A-125-18-S 507.0 -85		1.46	23	
SPECIMEN #A-125-19-S 502.0		1.32	19	
WOOD *				
SPECIMEN #A-125-20-S 497.0 -95			24	
GRAY CLAY				
SPECIMEN #A-125-21-S 492.0		1.12	23	
GRAY CLAY				
SPECIMEN #A-125-22-S 487.0 -105		1.62	21	
MEDIUM MOIST GREY CLAY TO CLAY LOAM A-6(10-11) WITH SOME GRAVEL	9	0.9B	20	
	9	0.85	18	
-62-25				
STIFF MOIST GREY SILTY CLAY TO CLAY A-7-6(12-13)	10	1.8D	21	
STIFF MOIST GREY CLAY TO CLAY LOAM A-6(9-10)	12	1.1E	18	
-65-25				
MEDIUM MOIST GREY SILTY CLAY TO CLAY A-7-6(12-13)	12	0.6E	21	
MEDIUM MOIST GREY CLAY A-7-6(15+) WITH ROTTEN WOOD	10	0.6E	32	
-90-25				
STIFF MOIST GREY SILTY CLAY TO SILTY CLAY LOAM A-6(8-9) WITH SAND SEAMS	11	1.5E	2	
HARD DARK GREY BROKEN SANDSTONE	10 in 2"			
BOTTOM OF HOLE = 73.0 FEET (REFUSAL) -95-25				
DURING DRILLING IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 70.5 FEET				

N-Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 # hammer falling 30"

Qu-Unconfined Compressive Strength - t/sf

w-Water Content - percentage of oven dry weight - %

Type failure
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

DESIGNED James Perez
CHECKED J Ram K Mallu
DRAWN J SCHEELER
CHECKED Ram K Mallu

EXAMINED Dec. 17 1970
PASSED H E Bruemmer
APPROVED Richard H. Gotterman

FOR INFORMATION ONLY

BORING DATA
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

STATE OF ILLINOIS

DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 24	44-2B	JOHNSON	109	48

SHEET NO. 53

54 SHEETS

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT

COUNTY JOHNSON
Boring No. A-1S
Station 144+65
Offset
City

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.9	0							
BROWN SIL								
SPECIMEN 1-S 550.4		1.44	25					
LIGHT GRAY SIL-OXIDIZED								
SPECIMEN 2-S 547.9	-5		23					
GRAY SAND LOAM WITH SEVERAL SIC STREAKS								
SPECIMEN 3-S 545.4			23					
GRAY CLAY TO SIC								
SPECIMEN 4-S 542.9	-15	1.43	21					
GRAY SIC FEW SILT STREAKS								
SPECIMEN 5-S 540.4		1.10	21					
GRAY CLAY FEW STONES								
SPECIMEN 6-S 537.9	-15	1.39	21					
GRAY SIC								
SPECIMEN 7-S 535.4		1.36	21					
SPECIMEN 8-S 532.9	-20	2.09	18					
GRAY SIC FEW STONES								
SPECIMEN 9-S 530.4			20					

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
				GRAY SIC LARGE POCKET SILT AT BOTTOM				
SPECIMEN 10-S 527.9	-25						1.43	23
				GRAY SIC FEW STONES				
SPECIMEN 11-S 525.4							1.92	22
				GRAY SIC FEW STONES				
SPECIMEN 12-S 522.9	-30						1.40	22
				GRAY CLAY				
SPECIMEN 13-S 520.4							1.26	27
				GRAY SICL				
SPECIMEN 14-S 517.9	-35						1.17	22
	-40							
	-45							

COUNTY JOHNSON
Boring No. A-1S
Station 154+00
Offset
City

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 553.0	0							
GRAY BROWN SIL OXIDATION								
SPECIMEN 1-S 550.5		.88	18					
GRAY BROWN SIL-1" POCKET OF GRAY SILT-OXIDATION			24					
SPECIMEN 2-S 548.0	-5	TRIAXIAL						
GRAY SIL-OXIDATION								
SPECIMEN 3-S 545.5		.88	21					
GRAY BROWN CLAY TILL								
SPECIMEN 4-S 543.0	-15	1.86	22					
BROWN CLAY FIRM								
SPECIMEN 5-S 540.5			19					
GRAY CLAY								
SPECIMEN 6-S 538.0	-15	1.14	19					
GRAY CLAY TILL			19					
SPECIMEN 7-S 535.5		TRIAXIAL						
GRAY CLAY TILL								
SPECIMEN 8-S 533.0	-20	1.51	21					
GRAY CLAY SILT SPECKS AND STREAKS			21					
SPECIMEN 9-S 530.5		TRIAXIAL						

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
				GRAY CLAY SILT STREAKS TOP HALF				
SPECIMEN 10-1 527.5	-25						1.37	26
				GRAY SAND FEW CLAY LAYERS				
SPECIMEN 10-S 525.5								19
				GRAY CLAY				
SPECIMEN 11-S 523.0	-30						1.10	27
				GRAY CLAY WITH ORGANICS AND LARGE ROCK AT CENTER				
SPECIMEN 12-S 520.5							.55	32
				LARGE ROCK WITH CLAY MIXTURE SAND BOTTOM 1 1/2"				
SPECIMEN 13-2 515.5	-35							29
	-40							
	-45							

COUNTY JOHNSON
Boring No. A-1S
Station 164+65
Offset
City

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.7	0							
BROWN SIL								
SPECIMEN 1-S 550.2		.46	25					
BROWN LOAM SANDY								
SPECIMEN 2-S 547.7	-5	.30	22					
GRAY-BROWN CLAY TILL								
SPECIMEN 3-S 545.2		.22	23					
GRAY CLAY TILL-CALCAREOUS PARTICLES								
SPECIMEN 4-S 542.7	-15	1.43	19					
GRAY CLAY TILL-LARGE ROCK								
SPECIMEN 5-S 540.2		2.48	18					
GRAY CLAY TILL								
SPECIMEN 6-S 537.7	-15	1.81	19					
GRAY CLAY TILL								
SPECIMEN 7-S 535.2		1.95	20					
GRAY CLAY TILL								
SPECIMEN 8-S 532.7	-30	1.69	23					
GRAY CLAY			60					
SPECIMEN 9-S 530.2		TRIAXIAL						

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
				DARK GRAY SIC				
SPECIMEN 10-S 527.7	-25						1.0	26
				GRAY SIC TO CLAY WITH STREAKS & POCKETS OF SAND				
SPECIMEN 11-S 525.2							.86	17
				YELLOW BROWN STIFF CLAY				
SPECIMEN 12-2 522.7	-30						4.50	23
	-35							
	-40							
	-45							

COUNTY JOHNSON
Boring No. A-1S
Station 154+00
Offset
City

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 550.0	0		
GRAY BROWN SIL SOME OXIDATION			
SPECIMEN 1-S 547.5			26
LIGHT GRAY SIL SOME OXIDATION			
SPECIMEN 2-S 545.0	-5	.72	27
LIGHT GRAY SIL SOME OXIDATION			
SPECIMEN 3-S 542.5		1.20	19
LIGHT GRAY SIL SIC STREAKS OXIDIZED BOTTOM SANDY			
SPECIMEN 4-S 540.0	-10	1.45	17
GRAY BROWN SAL WITH CLAY STREAKS ROCKS THROUGHOUT			
SPECIMEN 5-S 537.5			12

COUNTY JOHNSON
Boring No. A-1S
Station 164+00
Offset
City

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.0	0		
BROWN SILT			
SPECIMEN 1-S 549.5			28
BROWN SICL SOME OXIDATION		TRIAXIAL	
SPECIMEN 2-S 547.0	-5	1.47	26
BROWN SICL TO SIL FEW STREAKS SOME OXIDATION			
SPECIMEN 3-S 544.5		1.05	25
BROWN SIL WITH CLAY STREAKS SANDY AT BOTTOM FEW ROCKS			
SPECIMEN 4-1 542.0	-10	.68	19

COUNTY JOHNSON
Boring No. A-1S
Station 144+65
Offset
City

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 552.7	C							
GREY BROWN SIL WITH OXIDIZED PARTICLES								
SPECIMEN 1-S 550.2		1.51	21					
GREY BROWN SICL WITH SIL LAYERS OXIDIZED PARTICLES			36					
SPECIMEN 2-1 548.0	-5	TRIAXIAL						
GREY BROWN SIC WITH SAND STONE PARTICLES								
SPECIMEN 3-S 545.5		1.99	21					
GREY SIC								
SPECIMEN 4-S 543.0	-15	1.47	21					
GREY SILT WITH 1" CLAY LAYER BOTTOM-SMALL ROCKS								
SPECIMEN 5-S 540.5		1.22	24					
GREY SIC WITH ROCK PARTICLES								
SPECIMEN 6-S 538.0	-15	1.27	21					
GREY SIC WITH ROCK PARTICLES								
SPECIMEN 7-S 535.5		1.62	22					
GREY SIC WITH ROCK PARTICLES								
SPECIMEN 8-S 533.0	-20	1.22	23					
GREY CLAY WITH STREAKS AND POCKETS								
SPECIMEN 9-S 530.5		1.31	24					

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
				GREY SIC WITH ORGANICS PIECES AND SMALL ROCKS FEW CLAY & SIL POCKETS				
SPECIMEN 10-S 528.0	-25						1.47	24
				GREY BROWN SICL ORGANIC				
SPECIMEN 11-S 525.5							1.21	22
				GREY BROWN SICL				
SPECIMEN 12-2 523.0	-30						.80	24
				GREY BROWN CLAY WITH PIECES SAND STONES ROCKS AND SAND POCKETS THROUGHOUT				
SPECIMEN 13-2 520.5							1.22	24
BROWN SAND WITH SAND STONE AND ROCKS								23
SPECIMEN 14-1 520.0	-35							
	-40							
	-45							

COUNTY JOHNSON
Boring No. A-1S
Station 174+70
Offset 200' Rt. Const. Line

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 555.6	0							
BROWN LOAM WITH FEW ROOTS AND SIL POCKETS								
SPECIMEN 1-S 553.1		.50	10					
BROWN LOAM WITH FEW ROOTS AND SIL POCKETS								
SPECIMEN 2-1 550.6	-5		23					
BROWN SICL								
SPECIMEN 3-S 548.1		.39	29					
grey sicl some roots 1/2" SAND LAYER CENTER								
SPECIMEN 4-S 545.6	-10	.26	33					
GREY BROWN SIC SILT & SAND POCKETS & STREAKS								
SPECIMEN 5-S 543.1		1.22	24					
GRAY CLAY WITH SMALL ROCKS OXIDIZED HORIZONTAL LAYER TO SICL BOTTOM								
SPECIMEN 6-S 540.6	-15	.62	22					
GREY SIC SILT POCKETS								
SPECIMEN 7-S 538.1		1.17	24					
GREY SIC SMALL ROCKS								
SPECIMEN 8-1 535.6	-20		27					
GREY SIC SMALL ROCKS								
SPECIMEN 9-S 533.1		.74	22					

Elevation	N	Qu t/s.f.	w (%)	Surface Water El. / Groundwater El. at Completion / After Hours	Elevation	N	Qu t/s.f.	w (%)
				GREY SIC SMALL ROCKS				
SPECIMEN 10-S 530.6	-25						.26	21
				GREY SIC SMALL ROCKS				
SPECIMEN 11-S 528.1							.68	23
				GREY CLAY				68
SPECIMEN 12-S 525.6	-30						TRIAXIAL	
				GREY CLAY				
SPECIMEN 13-2 523.1							.55	49
				GRAY BROWN ORGANIC SILT				28
SPECIMEN 14-2 520.6	-35						TRIAXIAL	
				GRAY BROWN SAL WITH SIC POCKETS & LARGE PIECES OF SAND STONE				
SPECIMEN 15-S 518.1							.32	17

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 # hammer falling 30".

Qu-Unconfined Compressive Strength-t/sf
w-Water Content-percentage of oven dry weight-%.

Type failure
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

DESIGNED mes Perez
CHECKED Van K Mathur
DRAWN J. SCHNELLER
CHECKED Van K Mathur

EXAMINED Dec. 17 1970
PASSED H E Bamman
APPROVED Richard H. Goltermann

FOR INFORMATION ONLY

BORING DATA
F.A.I. RT. 24 SEC. 44-2B
JOHNSON COUNTY
STA. 151+50.00

STATE OF ILLINOIS

DIVISION OF HIGHWAYS

DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 24	44-28	JOHNSON	109	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

SHEET NO. 34

34 SHEETS

COUNTY JOHNSON
Boring No. A-21S
Station 149+35
Offset 51' Lt. C.L.

Surface Water El. ——
Groundwater El. at Completion ——
After —— Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 565.0	0		
GRAY BROWN SIL			
SPECIMEN 1-S 563.1		.75	22
GRAY BROWN OXIDIZED SIL			
SPECIMEN 2-S 560.6	-5	1.27	19
GRAY BROWN OXIDIZED SICL			
SPECIMEN 3-S 558.1		1.72	20
GRAY BROWN HEAVILY OXIDIZED FINE SACL			
SPECIMEN 4-S 546.6	-20	.70	17
YELLOW BROWN SACL WITH PIECES OF SAND STONE			
SPECIMEN 5-S 543.1		.89	11
	-15		
	-20		
	-25		
	-30		
	-35		
	-40		
	-45		

COUNTY JOHNSON
Boring No. A-21S
Station 149+35
Offset 51' Lt. C.L.

Surface Water El. ——
Groundwater El. at Completion ——
After —— Hours

Ground Surface	0			
BROWN SIL				
SPECIMEN 1-S		TRIAXIAL		22
GREY BROWN SICL OXIDIZED SILT POCKETS				
SPECIMEN 2-S	-5	TRIAXIAL		29
GREY BROWN ALTERNATING LAYERS OF SIC AND FINE SAND				
SPECIMEN 3-S		TRIAXIAL		24
GREY SAL				
SPECIMEN 4-S	-15	.12	18	
GREY BROWN SIC WITH SILT AND FINE SAL LAYERS AND POCKETS				
SPECIMEN 5-S		TRIAXIAL		23
GREY CLAY TILL SMALL ROCKS AND ORGANIC POCKETS FEW SILT POCKETS				
SPECIMEN 6-S	-25	1.02	20	
GREY CLAY TILL SMALL ROCKS				
SPECIMEN 7-S		1.72	19	
GREY CLAY TILL SMALL ROCKS				
SPECIMEN 8-S	-35	1.64	19	
GREY BROWN SACL LARGE ROCK				
SPECIMEN 9-S				8

Elevation	N	Qu t/s.f.	w (%)
GREY BROWN SAL WITH CLAY BINDER			
SPECIMEN 9-S	-35	.22	17
GREY BROWN SAL WITH CLAY BINDER			
SPECIMEN 9-S		.16	16
GREY CLAY WITH LARGE PIECE OF WOOD			
SPECIMEN 10-S	-30	.84	21
GREY CLAY FEW SMALL ROCKS			
SPECIMEN 11-S		1.17	22
GREY CLAY TILL SMALL ROCKS SILT POCKETS 1/2" SIC LAYER CENTER			
SPECIMEN 12-S	-35	1.15	21
GREY CLAY TILL SMALL ROCKS SMALL SILT POCKETS			
SPECIMEN 13-S		1.32	21
GREY CLAY TILL SMALL ROCKS FEW SMALL SILT POCKETS			
SPECIMEN 14-S	-40	.82	20
GREY CLAY TILL WITH SILT LAYERS AND POCKETS TO SIC BOTTOM 1/2"			
SPECIMEN 15-S		1.24	16
GREY CLAY WITH FEW SMALL STONES TOP			
SPECIMEN 16-S	-45	.50	20
BROWN CLAYEY SIL WITH PIECES OF ORGANICS			
SPECIMEN 17-S		.66	17
GREY SAL WITH SILT POCKETS AND LARGE ROCK CENTER			
SPECIMEN 18-S	-50	.41	15
BROWN SAL WITH SMALL SAL POCKETS AND ORGANICS			
SPECIMEN 19-S		.19	22

COUNTY JOHNSON
Boring No. A-21S
Station 149+35
Offset 51' Lt. C.L.

Surface Water El. ——
Groundwater El. at Completion ——
After —— Hours

Ground Surface	0		
GREY BROWN SICL WITH SILT POCKETS			
SPECIMEN 1-S	550.7		23
GREY BROWN SIL SILT POCKETS VERY SAL TRACES			
SPECIMEN 2-S	545.2 -5	.42	20
GREY BROWN SICL WITH OXIDIZED POCKETS SILT POCKETS			
SPECIMEN 3-S	540.7	1.49	21
GREY BROWN CLAY LARGE ROCK CENTER			
SPECIMEN 4-S	535.2 -15	1.60	24
GREY CLAY TILL SMALL STONES SILT POCKETS			
SPECIMEN 5-S	529.7	1.17	20
GREY CLAY TILL SMALL STONES SILT POCKETS			
SPECIMEN 6-S	524.2 -25	1.11	16
GREENISH GREY CLAY SIC POCKETS			
SPECIMEN 7-S	518.7	.55	27
GREY SIC FEW SMALL STONES			
SPECIMEN 8-S	513.2 -35	1.20	23
GREY SIC SMALL STONES SILT POCKETS THROUGHOUT			
SPECIMEN 9-S	507.7	1.47	19

Elevation	N	Qu t/s.f.	w (%)
GREY SIC SMALL STONES SILT POCKETS THROUGHOUT			
SPECIMEN 10-S	498.2 -45	1.32	23
GREY CLAY WITH FEW SMALL STONES			
SPECIMEN 11-S	496.7	1.13	23
GREY CLAY PIECES OF WOOD & ORGANIC POCKETS			
SPECIMEN 12-S	493.2 -50	.75	12
DARK BROWN SICL TO SIC BOTTOM HOLES THROUGHOUT			
SPECIMEN 13-S	490.7	TRIAXIAL	22

N-Standard Penetration Test – Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 # hammer falling 30".

Qu-Unconfined Compressive Strength – t/sf

w-Water Content – percentage of oven dry weight - %

Type failure
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

DESIGNED	James Pence	
CHECKED	Ravi K. Mathur	
DRAWN	[illegible]	
CHECKED	Ravi K. Mathur	

EXAMINED Dec. 11 1970
PASSED W. E. Baumann
APPROVED Richard H. Lotterman

FOR INFORMATION ONLY

BORING DATA
F.A.I. RT. 24 SEC. 44-28
JOHNSON COUNTY
STA. 151+50. CO

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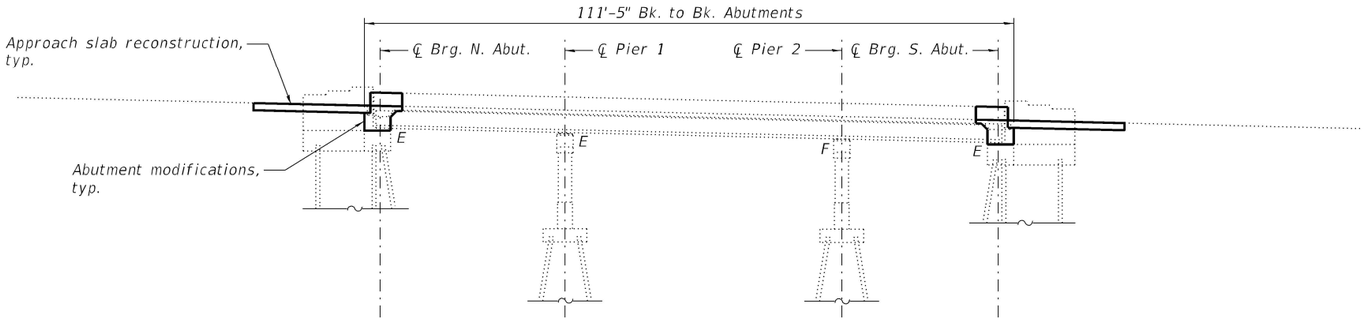
		DRAWN - BLH	REVISED -	
	PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
	PLOT DATE = 3/28/2023 (7:41:32 AM)	DATE - 03/03/2023	REVISED -	

EXISTING PLANS
SN 044–0029 (E.B.) & 0030 (W.B.)

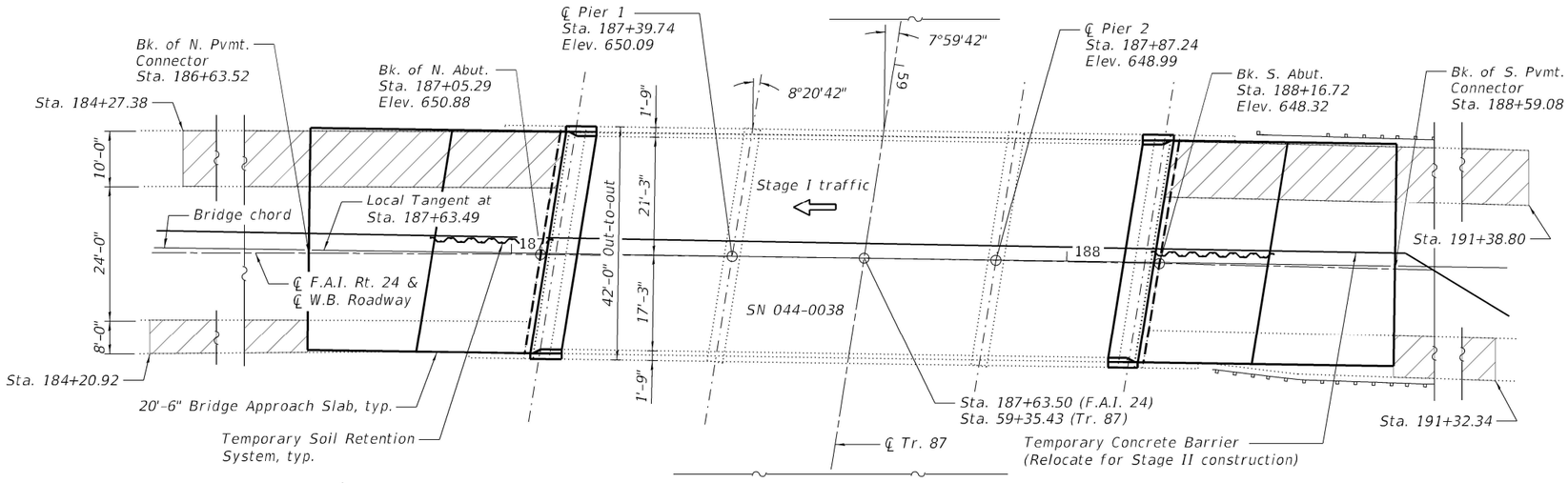
SCALE: | SHEET 49 OF 49 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	130
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

FILE NAME: L:\DOT\190661\WO_18\Drawl\Structures\CADD Sheets\SN 044-0029 & 0030\049 0029-0030 Existing Plans.dgn



ELEVATION



PLAN

SCOPE OF WORK

1. Perform required pre-stage work, including necessary shoulder work.
2. Remove existing 2¼" concrete wearing surface, and ¾" of existing deck.
3. Perform deck repairs as shown.
4. Perform concrete beam repairs.
5. Remove and replace bridge approach slabs and pavement connectors including removal of buried pile bent caps.
6. Convert existing stub abutments to integral abutments.
7. Perform concrete abutment cap repair.
8. Install new 3¼" latex concrete wearing surface and perform diamond grinding, longitudinal bridge deck grooving, and apply protective coat.

   Up to ¼" may be ground off the bridge deck.

INDEX OF SHEETS

1 - General Plan and Elevation
2 - General Data
3 - Stage Construction Details
4 - Deck Patching and Beam Repair Plan
5 - Temporary Concrete Barrier for Stage Construction
6 - Superstructure
7 - Diaphragms
8 - Diaphragm Details
9 - Beam Repairs
10 - Approach Slab Plan - SN 044-0037
11 - Approach Slab Details- SN 044-0037
12 - Approach Slab Plan - SN 044-0038
13 - Approach Slab Details- SN 044-0038
14 - Abutment Removal
15 - Bar Splicer Assembly and Mechanical Splicer Details
16-30 - Existing Plans

DESIGN STRESSES

FIELD UNITS

New Construction
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

Existing Structure, 2001 Rehabilitation
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

Existing Structure, 1971
fc = 1,200 psi (Superstructure)
fc = 1,400 psi (Substructure)
fs = 20,000 psi (Reinforcement)

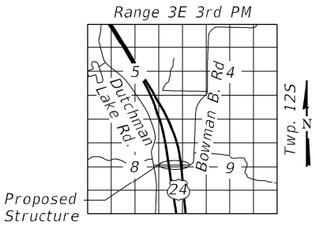
CURVE DATA

W.B. I-24
P.I. Sta. 172+61.16
Δ = 26° 16' 38" (RT)
D = 0° 40' 03"
R = 8,582.65'
T = 2,003.34'
L = 3,936.19'
E = 230.71'
S.E. = N/A
P.C. Sta. = 152+57.83
P.T. Sta. = 191+94.02

LICENSED STRUCTURAL ENGINEER
JOSEPH T. HEGER
081-008156
STATE OF ILLINOIS

5-5-23

Exp. Date 11/30/2023



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
I-24 OVER T.R. 87
F.A.I. 24, SECTION BRIDGE REPAIR 2023
JOHNSON COUNTY
STA. 151+50.00
SN 044-0037 & 044-0038

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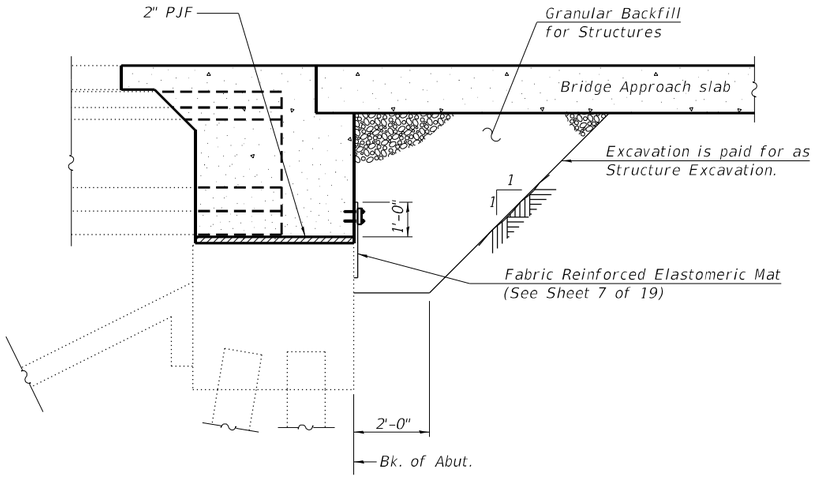
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 1 OF 30 SHEETS | STA. | TO STA.

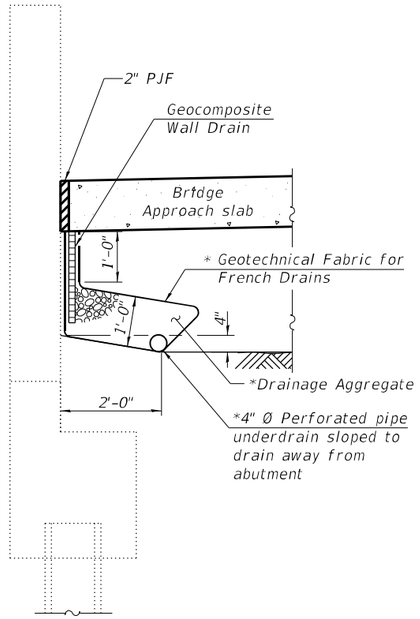
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	131
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\001 0037-0038 GPE.dgn



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. ∠'s)



SECTION THRU ABUTMENT WINGWALL

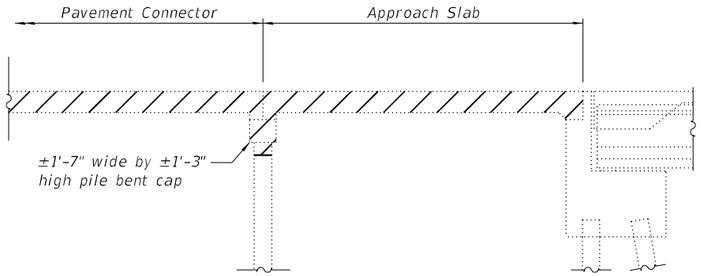
(Horiz. dim. @ Rt. ∠'s)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:
All drainage system components shall extend 2'-0" from the end of each wingwall except an outlet pipe shall wrap around and extend until intersecting with the side slope. The pipes shall drain into concrete headwalls.
(See Article 601.05 of the Standard Specifications and Highway Standard 601101).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SN 044-0037	SN 044-0038	TOTAL
Welded Wire Reinforcement	Sq. Yd.	200	199	399
Paved Shoulder Removal	Sq. Yd.	1,207	1,198	2,405
Portland Cement Concrete Shoulders 9 3/4"	Sq. Yd.	1,135	1,122	2,257
Concrete Removal	Cu. Yd.	32.7	32.4	65.1
Structure Excavation	Cu. Yd.	63	62	125
Concrete Structures	Cu. Yd.	24.5	24.5	49
Concrete Superstructure	Cu. Yd.	61.2	61.4	122.6
Protective Coat	Sq. Yd.	666	666	1332
Concrete Superstructure (Approach Slab)	Cu. Yd.	38.3	38.3	76.6
Reinforcement Bars, Epoxy Coated	Pound	36,980	36,980	73,960
Bar Splicers	Each	296	296	592
Temporary Soil Retention System	Sq. Ft.	48	48	96
Granular Backfill for Structures	Cu. Yd.	60	59	119
Geocomposite Wall Drain	Sq. Yd.	9	9	18
Concrete Headwalls for Pipe Drains	Each	4	4	8
Pipe Underdrains for Structures 4"	Foot	48	48	96
Temporary Concrete Barrier	Foot	440	440	880
Pinning Temporary Concrete Barrier	Each	8	8	16
Relocate Temporary Concrete Barrier	Foot	440	440	880
Impact Attenuators, Temporary (Non- Redirective), Test Level 3	Each	1	1	2
Impact Attenuators, Relocate (Non- Redirective), Test Level 3	Each	1	1	2
Raised Reflective Pavement Marker	Each	3	3	6
Raised Reflective Pavement Marker (Bridge)	Each	1	1	2
Barrier Wall Reflectors, Type B	Each	11	11	22
Raised Reflective Pavement Marker Removal	Each	4	4	8
Acrylic Coating	Sq. Yd.	0	7	7
Fiber Wrap	Sq. Ft.	0	31	31
Bridge Approach Pavement Connector (Special)	Sq. Yd.	200	199	399
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	402	402	804
Approach Slab Removal	Sq. Yd.	214	214	428
Bridge Deck Latex Concrete Overlay, 3 1/4 Inches	Sq. Yd.	422	422	844
Bridge Deck Scarification 3"	Sq. Yd.	422	422	844
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	112	0	112
Diamond Grinding (Bridge Section)	Sq. Yd.	839	839	1,678
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	5	4	9



APPROACH SLAB REMOVAL

Existing approach slab and pavement connector to be removed. Buried pile bent cap to be completely removed. Piles shall be removed to 2' below finished grade. Approach slab and pavement connector removal shall be paid for as Approach Slab Removal. Pile bent cap removal shall be paid for as Concrete Removal. Pile removal shall be included in the cost of Concrete Removal.

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Plan dimensions and details are relative to existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. Existing reinforcement bars extending into the removed area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
4. To retain the temporary concrete barrier for Stage II Traffic, the Contractor shall have the option of using either 2 (#5) bar splicers or 2 cast in place inserts at 6" centers at the mid-depth of the approach slab and pavement connector. The bar splicers or inserts shall have a minimum proof load of 5,000 pounds. Along with the anchoring devices the Contractor shall provide one steel retainer plate and 2 ½" diameter bolt and washers every 6' as shown on Detail II on Standard R-27 (Sheet 5 of 30) from Sta. 185+77.16 to Sta. 186+19.33 and Sta. 187+30.75 to Sta. 187+72.38 for SN 044-0037 and Sta. 186+63.66 to Sta. 187+05.29 and Sta. 188+16.72 to Sta. 188+58.94 for SN 044-0038 for Stage II traffic. This work shall be included in the cost of Temporary Concrete Barrier, no additional compensation shall be provided.

FILE NAME: L:\DOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\002 0037-0038 General Data.dgn

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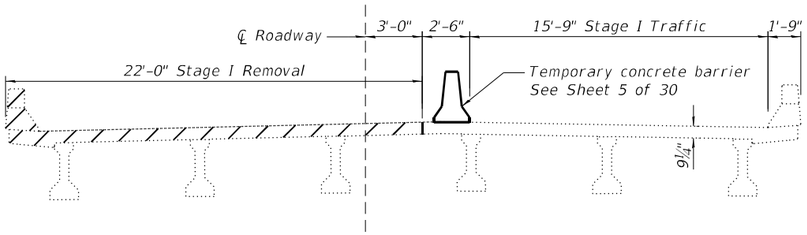
	DRAWN - MAC	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 5/8/2023 (7:57:03 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
SN 044-0037 (E.B.) & 0038 (W.B.)

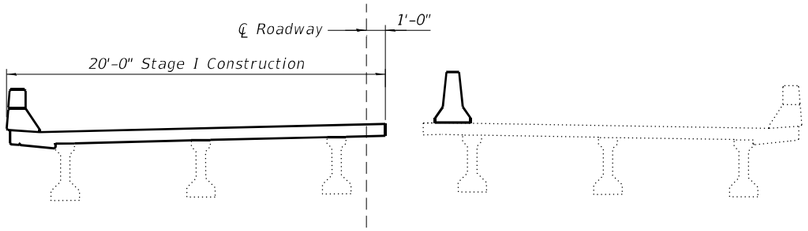
SCALE: | SHEET 2 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	132
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



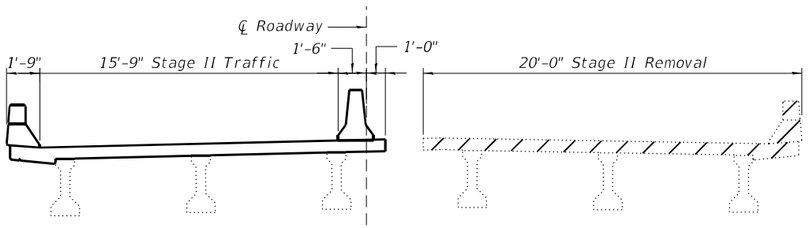
STAGE I REMOVAL

(Looking in the direction of traffic)



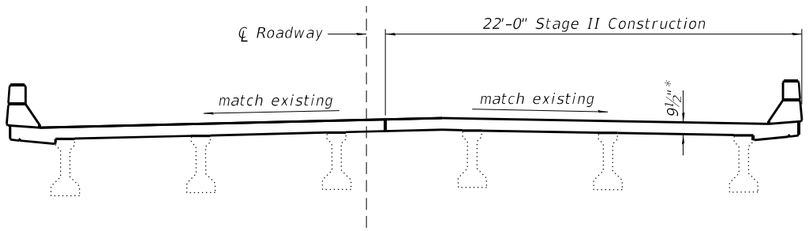
STAGE I CONSTRUCTION

(Looking in the direction of traffic)



STAGE II REMOVAL

(Looking in the direction of traffic)

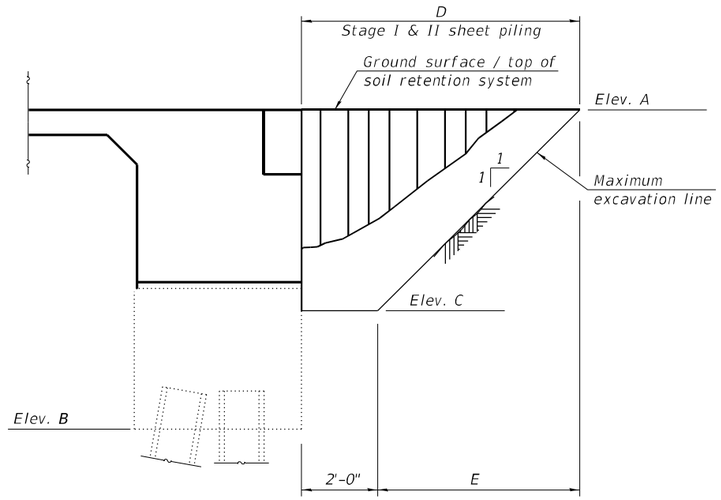


STAGE II CONSTRUCTION

(Looking in the direction of traffic)

* Prior to grinding

Stage Construction Notes:
1. Hatched area indicates, Concrete Removal at abutments
2. SN 044-0037 shown, SN 044-0038 is superelevated.



TEMPORARY SOIL RETENTION SYSTEM

Location	Elev. A	Elev. B	Elev. C	Dim. D	Dim. E
SN 044-0037 N. Abut.	680.66	672.90	675.40	7'-3⅛"	5'-3⅛"
SN 044-0037 S. Abut.	678.29	670.64	673.14	7'-1¾"	5'-1¾"
SN 044-0038 N. Abut.	650.88	643.17	645.67	7'-2½"	5'-2½"
SN 044-0038 S. Abut.	648.32	640.73	643.23	7'-1⅛"	5'-1⅛"

Temporary Soil Retention System Notes:
1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Elevations and dimensions shown are approximate based on existing plan data. Exact elevations and dimensions required shall be field verified by the Contractor.

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\003 0037-0038 Stage Construction Details.dgn

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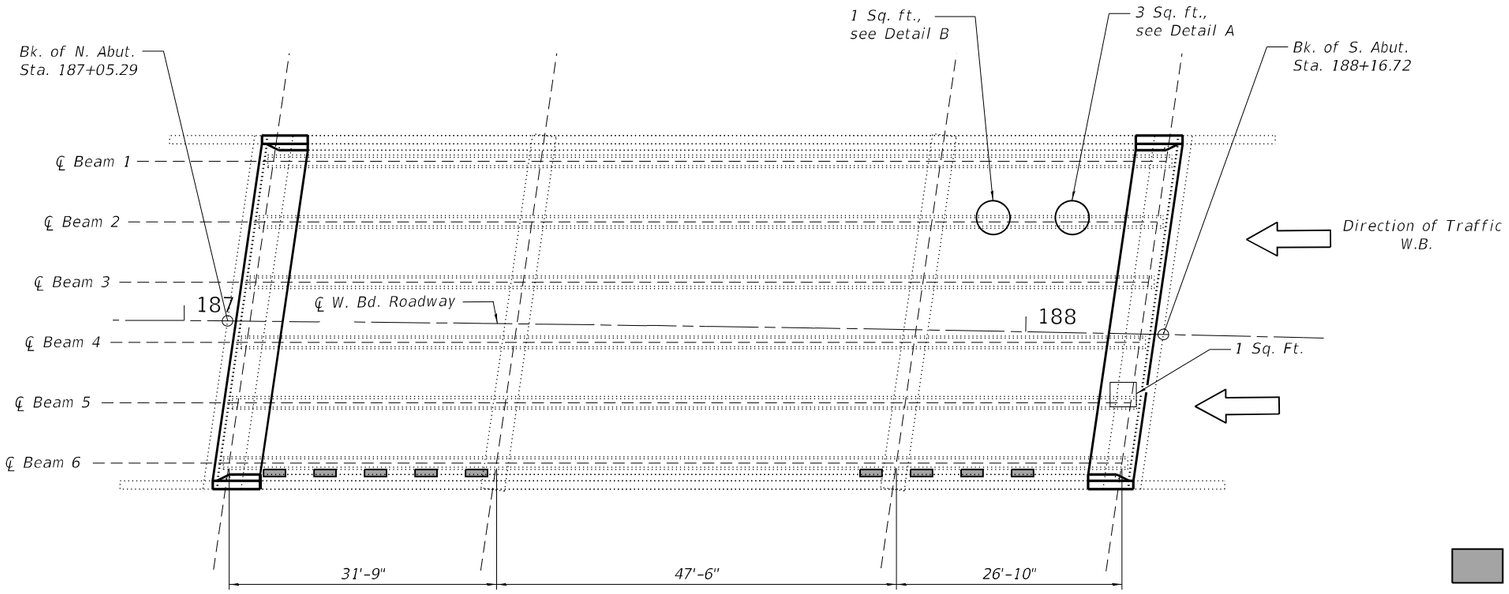
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 3 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	133
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



N

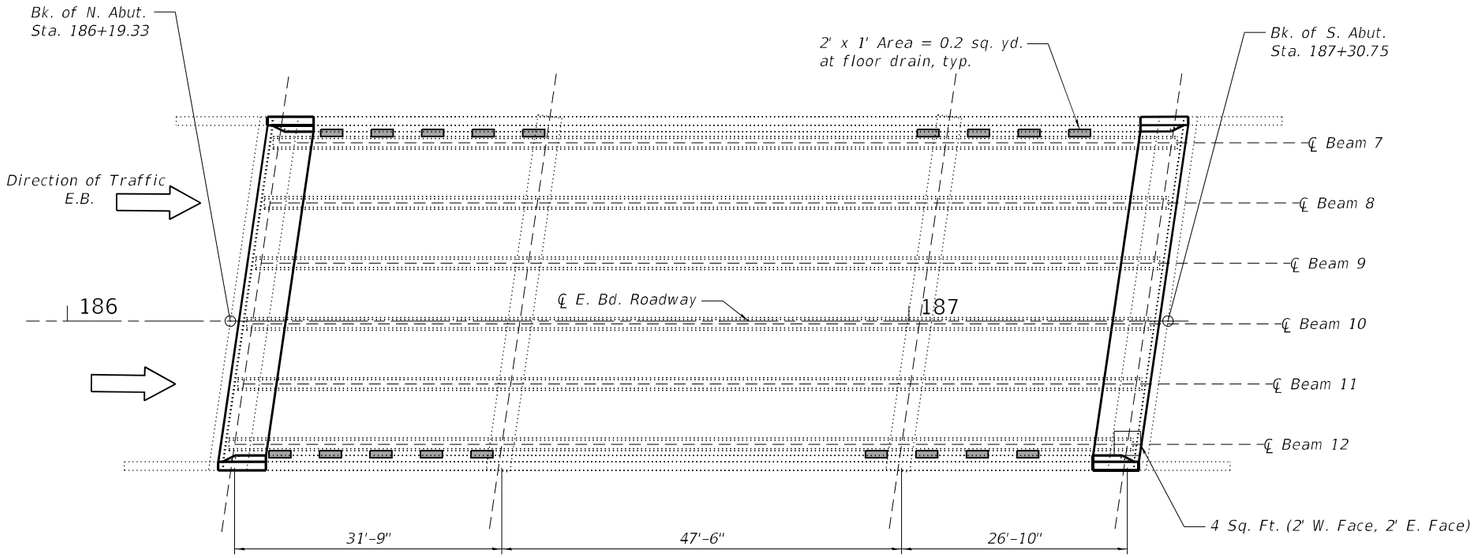
DECK PLAN
SN 044-0038

LEGEND

Concrete Deck Repairs, Full Depth, Type I

Precast Prestressed Concrete I-Beam Repair

Precast Prestressed Concrete I-Beam Repair with Fiber Wrap (See Sheet 9 of 30 for details)



DECK PLAN
SN 044-0037

Notes:
1. The Resident Engineer will determine final patch locations and quantities in the field after removal of the concrete wearing surface, before bridge deck patching operations begin.
2. The Engineer shall show actual locations of deck repairs on As-built Plans.
3. Existing floor drains shall be removed at each existing floor drain location. Cost for removal of existing floor drains included with Deck Slab Repair (Full Depth, Type 1).
4. See Sheet 9 of 30 for beam repair details and quantities.
5. For Detail A and B, see sheet 9 of 30.

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\004 0037-0038 Deck Patching and Beam Repair Plan.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PATCHING AND BEAM REPAIR PLAN
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 4 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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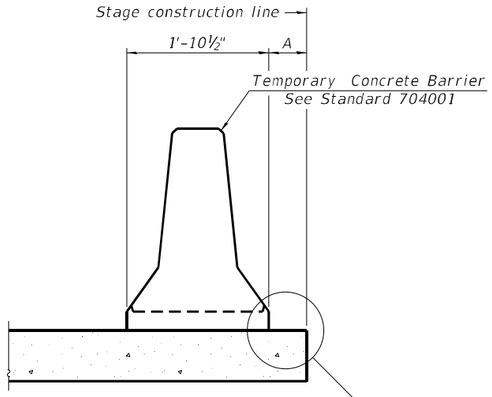
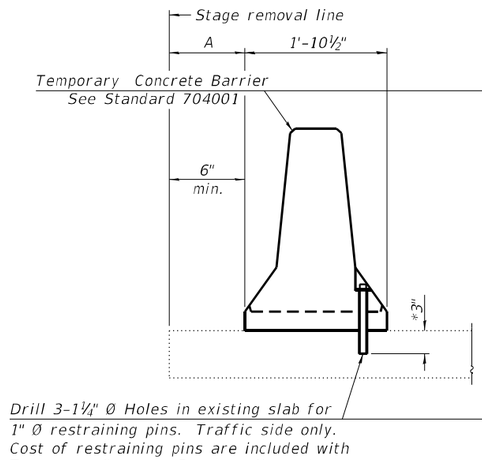
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	



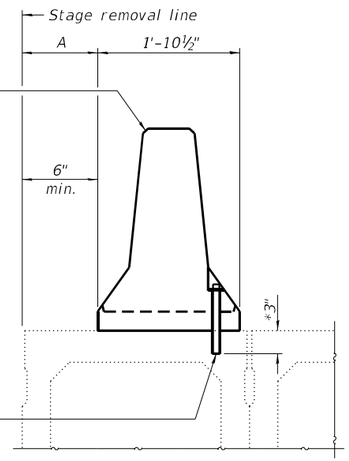
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

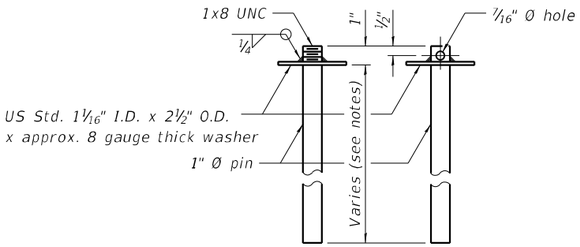
EXISTING SLAB



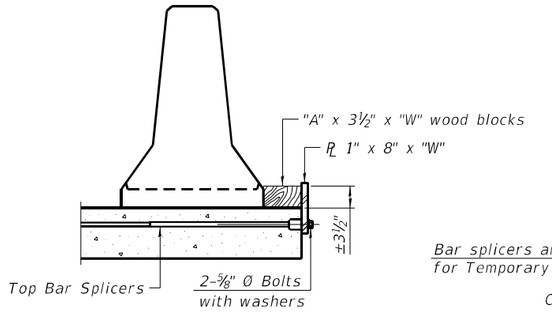
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

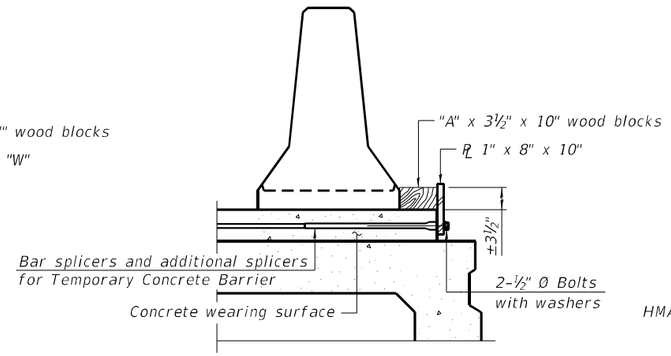
SECTIONS THRU SLAB OR DECK BEAM



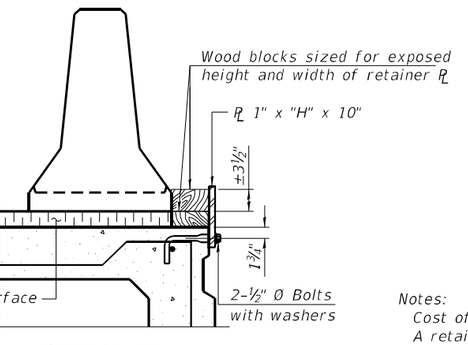
RESTRAINING PIN



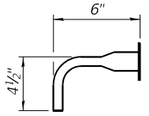
DETAIL I



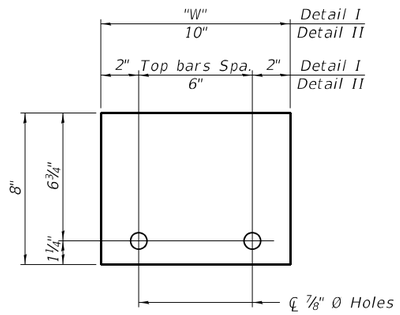
DETAIL II



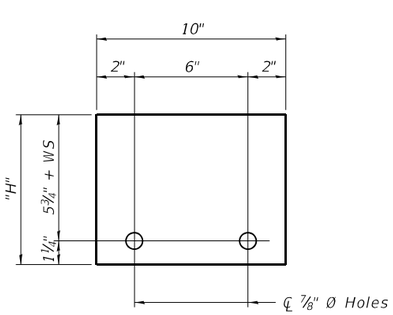
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

FILE NAME: L:\IDOT\190610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\005 0037-0038 Temporary Concrete Barrier for Stage Construction.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 5 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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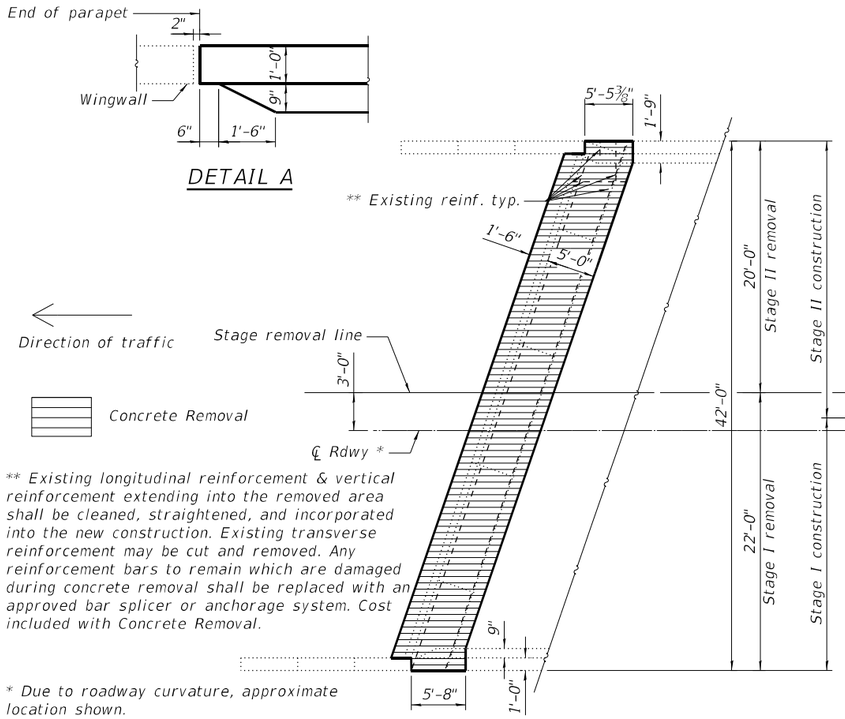
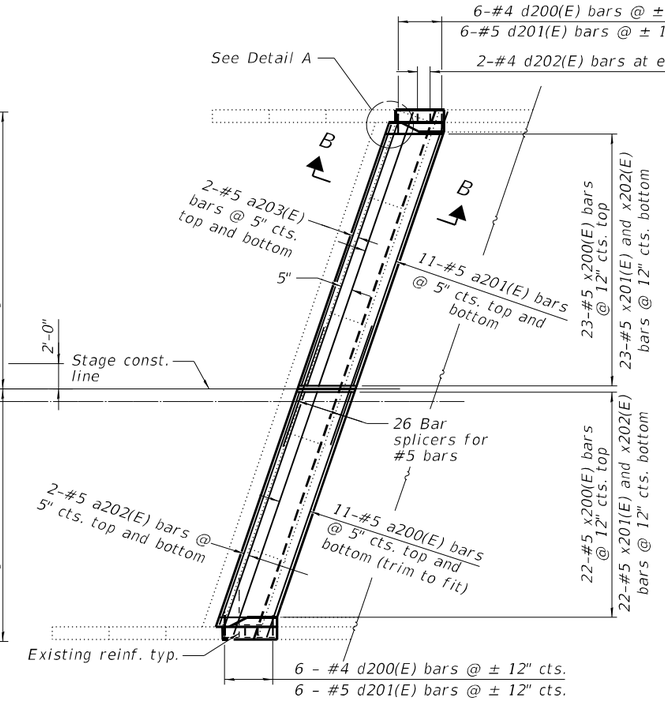
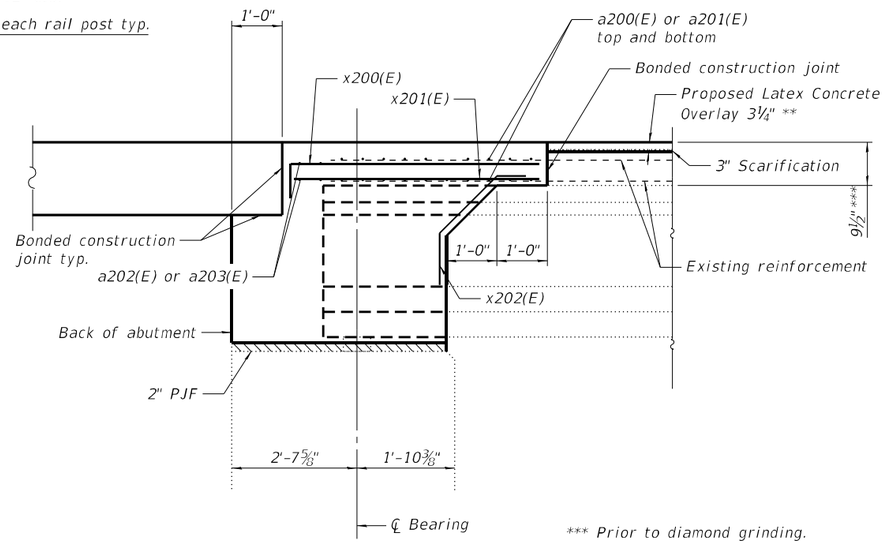
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ABUTMENT PLAN
SHOWING CONCRETE REMOVAL



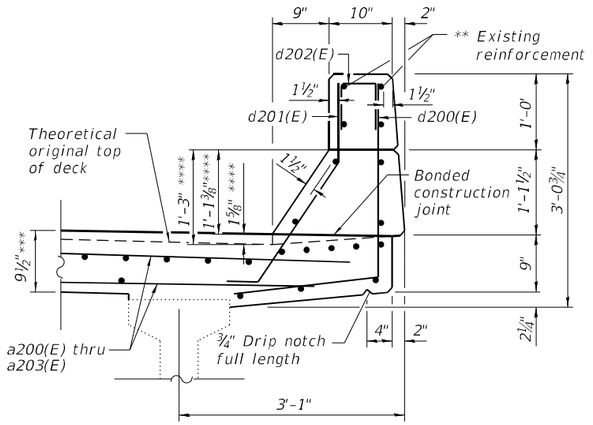
ABUTMENT PLAN
SHOWING CONCRETE REPLACEMENT



SECTION B-B
TYPICAL SECTION THRU REPAIRED EXISTING ABUTMENT
(Dimensions measured at right angles)
For section showing deck removal see Sheet 14 of 30.

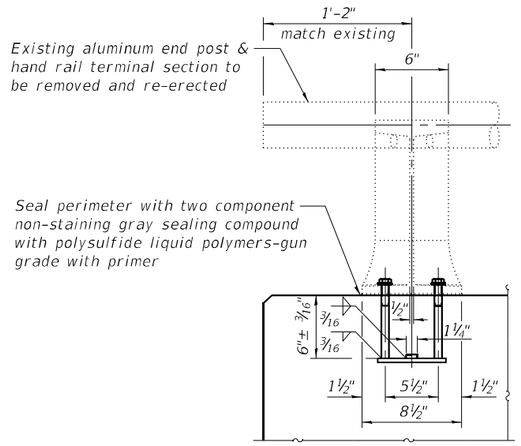
Note: d200(E) and d201(E) bars spaced at 12" cts.

SN 044-0037 south abutment shown, SN 044-0037 north abutment similar
SN 044-0038 north abutment shown, SN 044-0038 south abutment similar

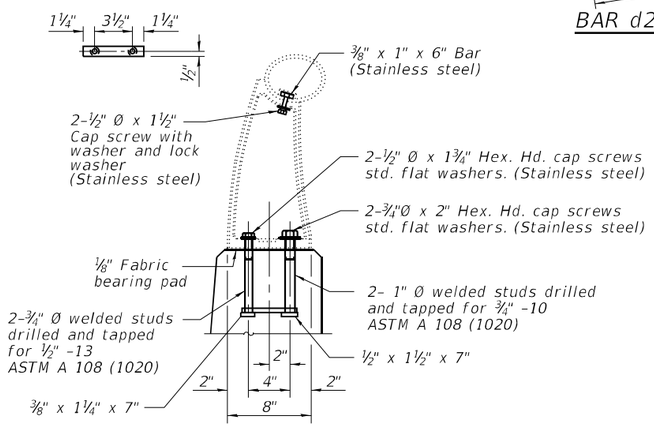


SECTION THRU PARAPET

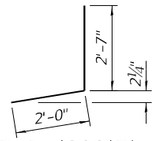
**** Dimensions based on original 7 1/2" deck. Proposed parapet section to align with existing parapet section.



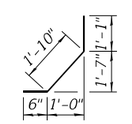
RAIL POST DETAILS



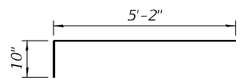
Notes:
1. The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PPC I-Beams or other structural elements not intended for removal shall be repaired at no additional cost to the Department.
2. Rail shall be removed and re-erected as necessary to allow structure modifications. Cost included in Concrete Removal.



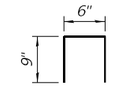
BAR d200(E)



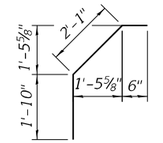
BAR d201(E)



BAR x200(E)



BAR d202(E)



BAR x202(E)

FOUR SUPERSTRUCTURE ENDS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	88	#5	19'-11"	
a201(E)	88	#5	21'-11"	
a202(E)	16	#5	18'-8"	
a203(E)	16	#5	20'-9"	
d200(E)	48	#4	4'-8"	
d201(E)	48	#5	3'-5"	
d202(E)	16	#4	2'-0"	
x200(E)	180	#5	6'-0"	
x201(E)	180	#5	5'-2"	
x202(E)	180	#5	4'-5"	
Concrete Removal			Cu. Yd.	27.9
Concrete Superstructure			Cu. Yd.	122.6
Reinforcement Bars, Epoxy Coated			Pound	7,780
Bar Splicers			Each	104

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\006 0037-0038 Superstructure.dgn

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DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 6 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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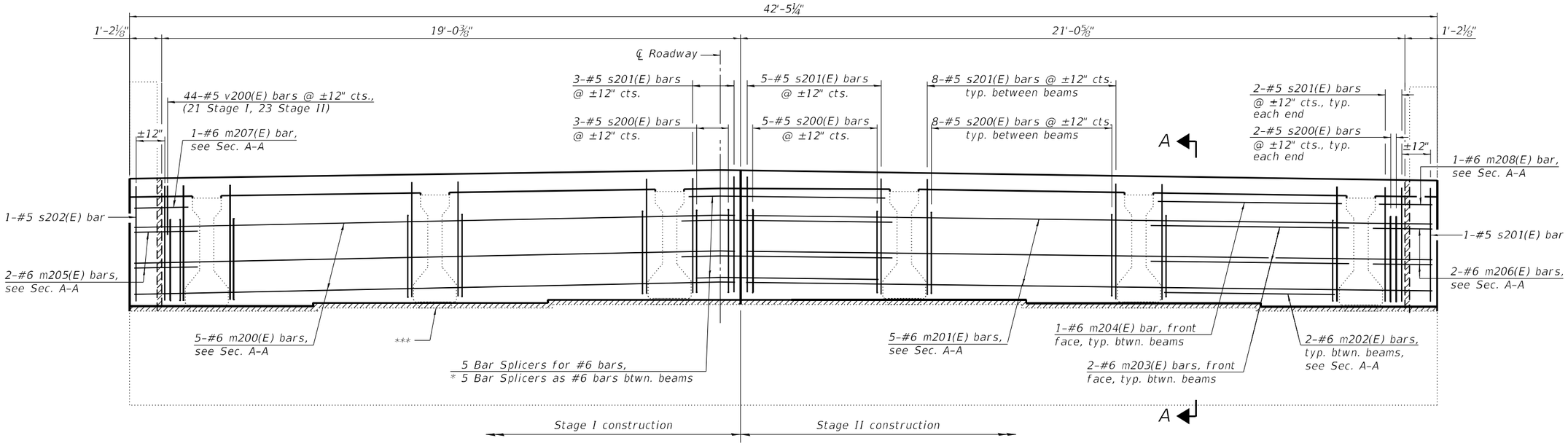
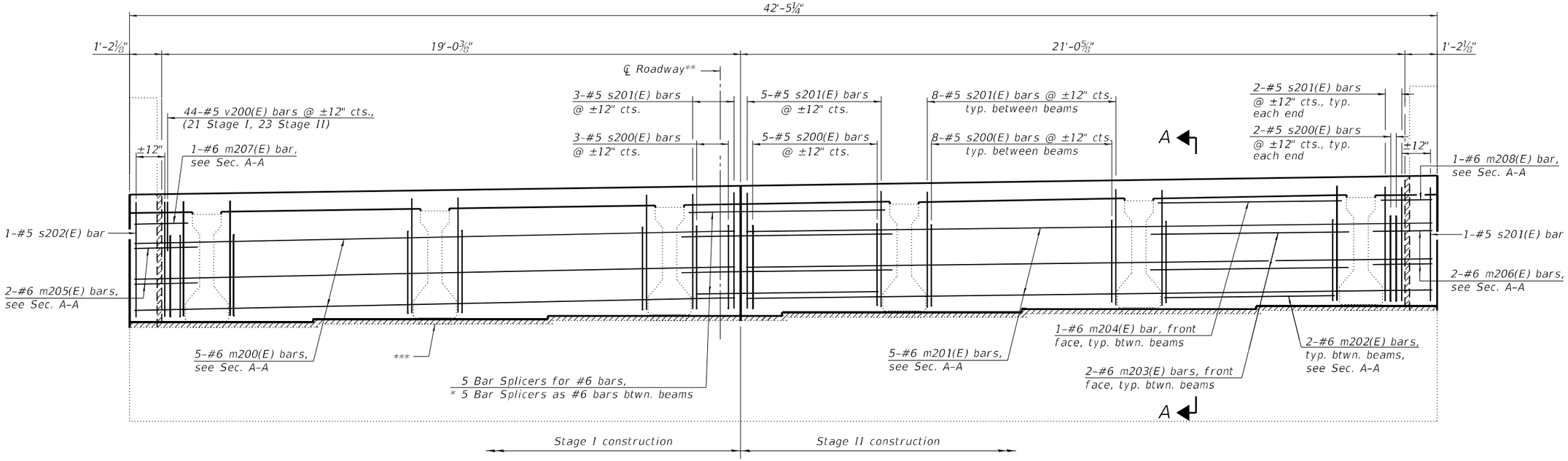
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM ELEVATION AT ABUTMENT SN 044-0037

SN 044-0037 south abutment shown, SN 044-0037 north abutment similar



DIAPHRAGM ELEVATION AT ABUTMENT SN 044-0038

SN 044-0038 north abutment shown, SN 044-0038 south abutment similar

* Bar splicers shall act as bars when length is less than required lap length. See sheet 15 of 30.
** Due to roadway curvature, approximate location shown.
*** 2" PJF shall be trimmed to fit up to the existing elastomeric bearing pads.

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\007 0037-0038 Diaphragmns.dgn

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DEPARTMENT OF TRANSPORTATION

DIAPHRAGMS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 7 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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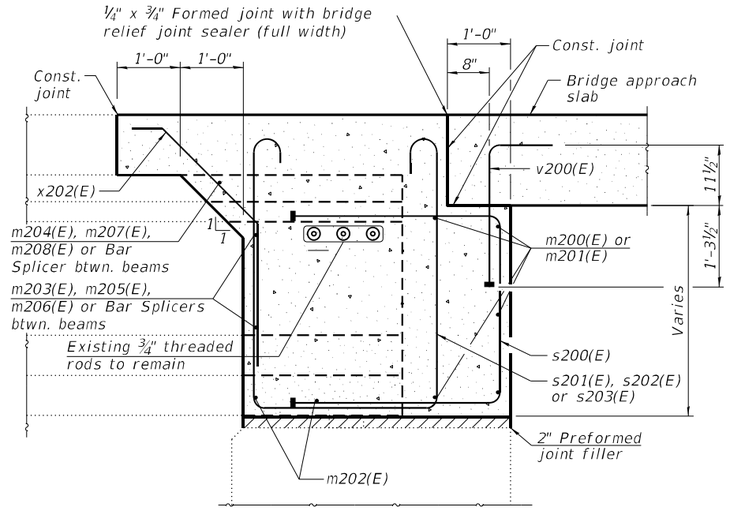
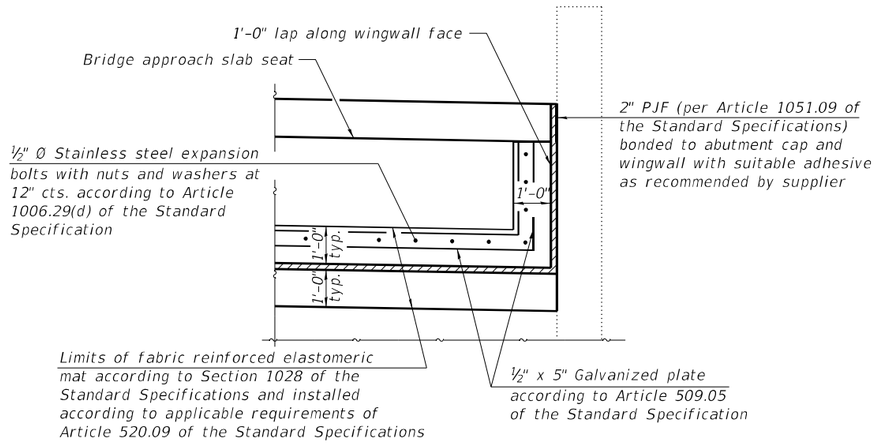
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



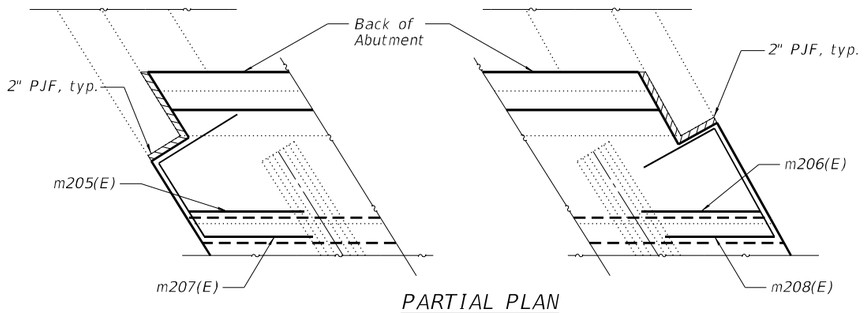
SECTION A-A

(Dimensions measured at right angles)

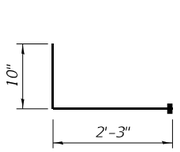


ELEVATION

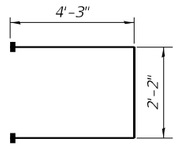
(Looking at back of abutment)



PARTIAL PLAN

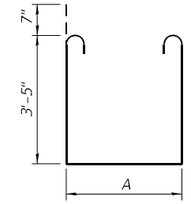


Bar v200(E)

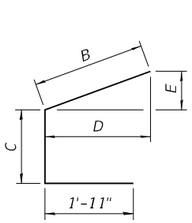


Bar s200(E)

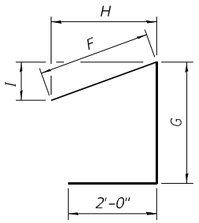
Bar	A
s201(E)	3'-2"
s202(E)	2'-11"



Bar s201(E) and s202(E)



Bar m205(E) and m207(E)



Bar m206(E) and m208(E)

Bar	B	C	D	E
m205(E)	2'-6"	2'-11"	2'-5 5/8"	4 3/8"
m207(E)	2'-3"	3'-11"	2'-3 3/4"	3 7/8"

Bar	F	G	H	I
m206(E)	2'-6"	3'-2"	2'-5 5/8"	4 3/8"
m208(E)	2'-3"	4'-2"	2'-2 3/4"	3 7/8"

FOUR DIAPHRAGMS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
m200(E)	20	#6	18'-8"	
m201(E)	20	#6	20'-9"	
m202(E)	40	#6	5'-4"	
m203(E)	40	#6	6'-4"	
m204(E)	20	#6	5'-10"	
m205(E)	8	#6	7'-4"	
m206(E)	8	#6	7'-8"	
m207(E)	4	#6	8'-1"	
m208(E)	4	#6	8'-5"	
s200(E)	88	#5	10'-8"	
s201(E)	90	#5	11'-2"	
s202(E)	2	#5	10'-11"	
v200(E)	176	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Pound	4,960
Bar Splicers			Each	40

Notes:
1. Cost of fabric reinforced elastomeric mat, galvanized plates, stainless steel expansion bolts with nuts and washers and installation are included in the cost of Concrete Superstructure.
2. Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
3. The s200(E), s201(E), s202(E), s203(E) and v200(E) bars are placed parallel to beams and spaced at right angles to beams.
4. Concrete Superstructure quantity included in quantity shown on Sheet 6 of 30.

FILE NAME: L:\IDOT\190661O\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\008 0037-0038 Diaphragm Details.dgn

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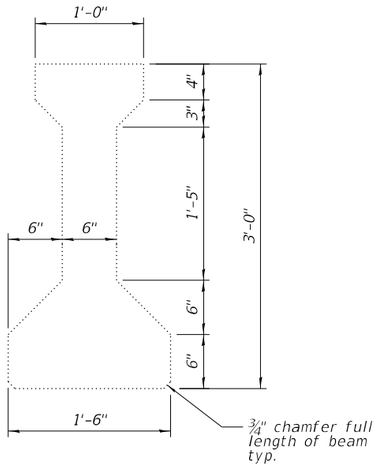
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

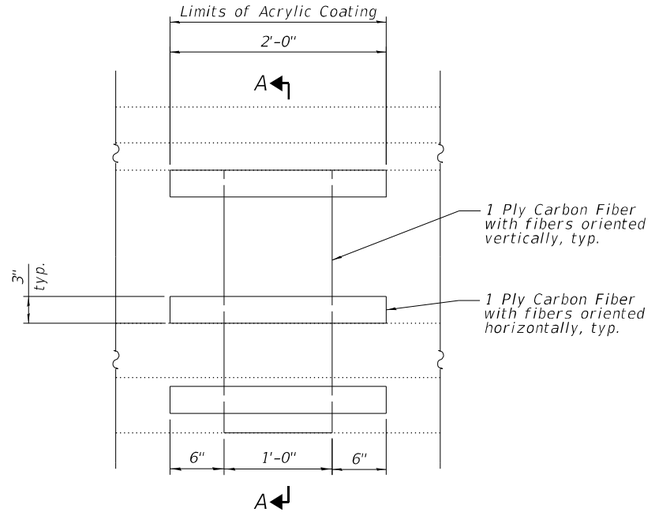
DIAPHRAGM DETAILS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 8 OF 30 SHEETS | STA. | TO STA.

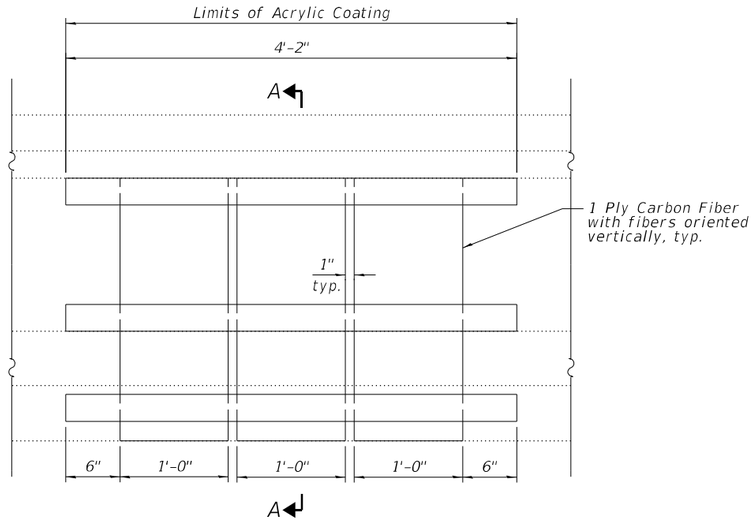
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	138
		CONTRACT NO. 78912		
	ILLINOIS FED. AID PROJECT			



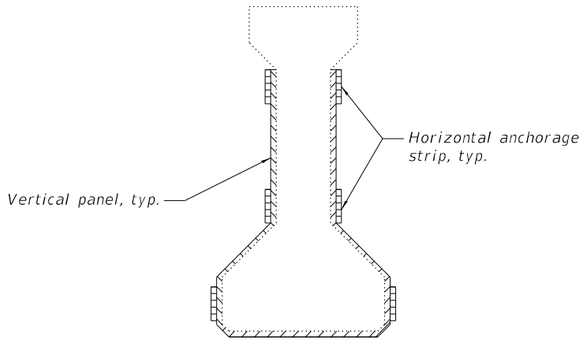
CROSS SECTION



DETAIL A
(1 required)



DETAIL B
(1 required)



SECTION A-A

PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR

SN	Location	Quantity
044-0038	Beam 2 - ± 10' N. of S. Abut., E. Face	1.0 Sq. Ft.
044-0038	Beam 2 - ± 25' N. of S. Abut., E. Face	3.0 Sq. Ft.
044-0038	Beam 5 - S. Abut., E. Face	1.0 Sq. Ft.
044-0037	Beam 12 - S. Abut., E. & W. Face	4.0 Sq. Ft.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Acrylic Coating	Sq. Yd.	6
Fiber Wrap	Sq. Ft.	37
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	9

Notes:
1. The existing concrete surface shall be cleaned and prepared in accordance with the Special Provisions.
2. See Special Provisions for "FRP Strengthening for PPC I-Beam Repairs".
3. See Special Provisions for "Precast Prestressed Concrete I-Beam Repair".
4. Acrylic Coating shall be placed over Fiber Wrap repairs. Two coats shall be applied.
5. Vertical panels must be between 10" and 12". Vertical panels shall extend beyond the repairs zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces. Vertical panels outside the bearing locations shall wrap under the bottom of the beam in a continuous strip up both sides of the beam.
6. Horizontal anchorage strips shall be 3" wide as shown and extend a minimum of 6" beyond the vertical panels. The horizontal strips shall be placed on top of the vertical panels.

FILE NAME: L:\IDOT\19066101WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\009 0037-0038 Beam Repairs.dgn

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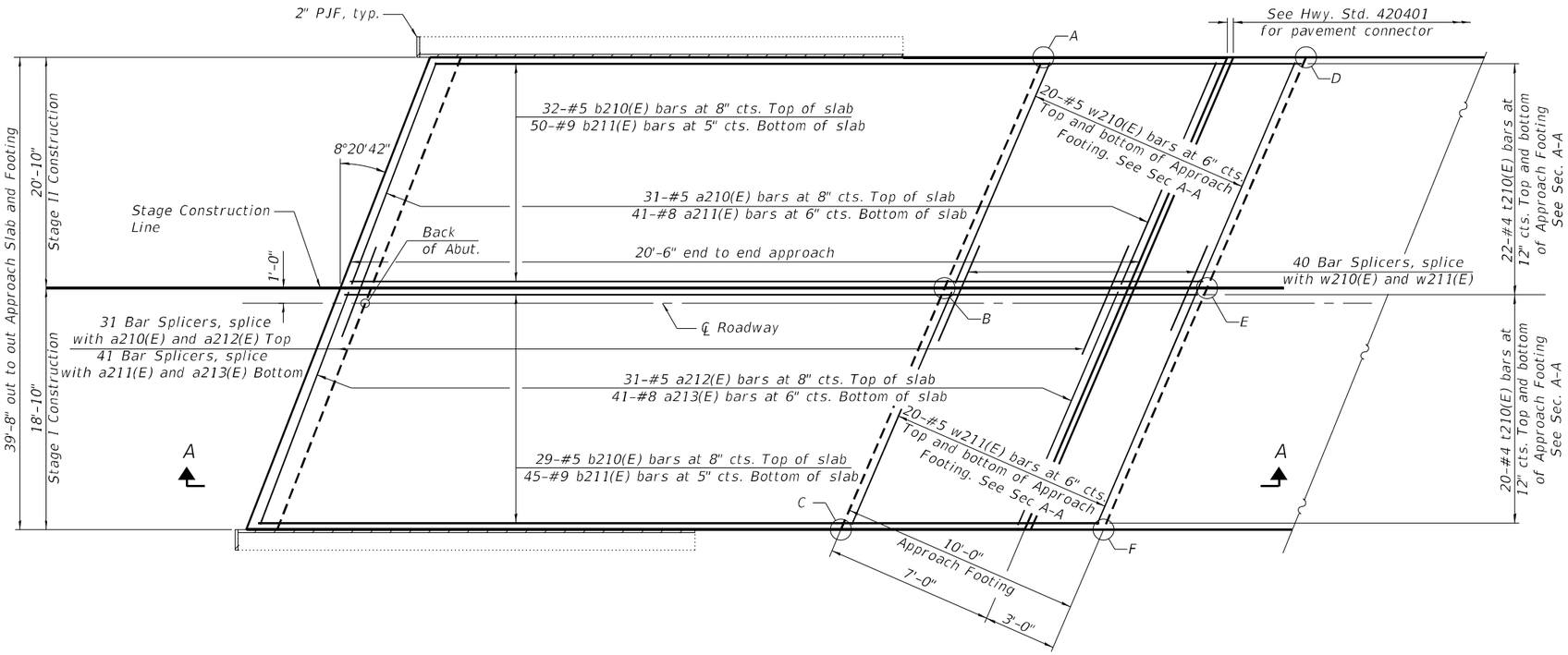
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM REPAIRS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 9 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	139
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



PLAN

SN 044-0037 south approach slab shown, north approach slab similar

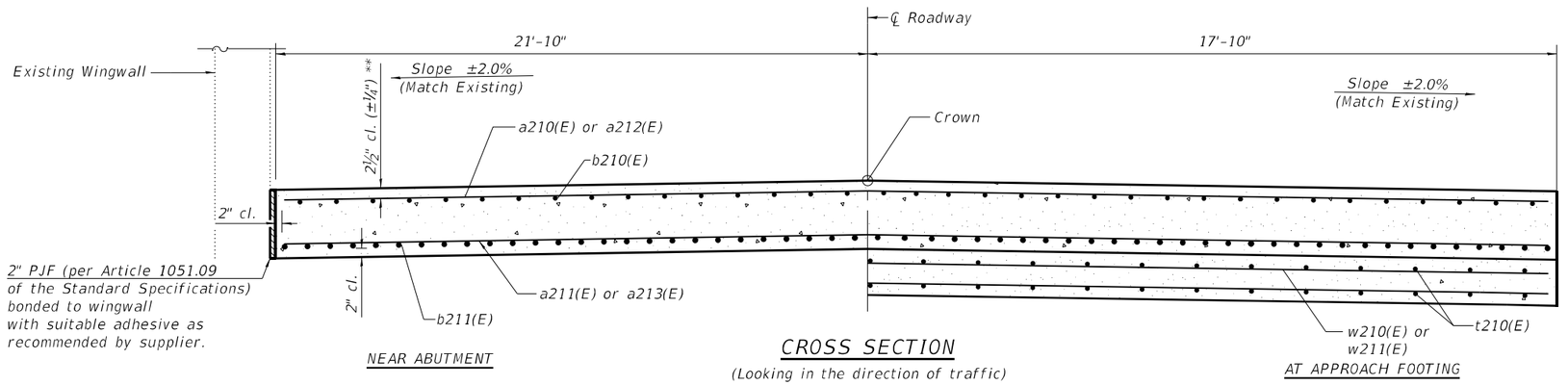
* Pavement connector shall be paid for as Bridge Approach Pavement Connector (Special). The pavement connector shall be constructed per Hwy. Std. 420401 except that the 15'-0" length shall be 19'-7¾". See Special provision for additional details.

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

S.N. 044-0037				
	North Approach		South Approach	
Point	Top	Bottom	Top	Bottom
A				
B				
C				
D				
E				
F				

1. The approach slab shall be placed to match existing elevations. The Contractor shall place the approach footing for the approach slabs to match existing elevations at grade. Adjustments for settlement of existing approach slabs shall be made as directed by the Engineer. Blank tables included for field notation.

2. See Section A-A on Sheet 11 of 30.



NEAR ABUTMENT

CROSS SECTION

(Looking in the direction of traffic)

AT APPROACH FOOTING

** Prior to diamond grinding

FILE NAME: L:\IDOT\190661010\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\010 0037-0038 Approach Slab Plan - SN 044-0037.dgn

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DEPARTMENT OF TRANSPORTATION

APPROACH SLAB PLAN – SN 044–0037
SN 044–0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 10 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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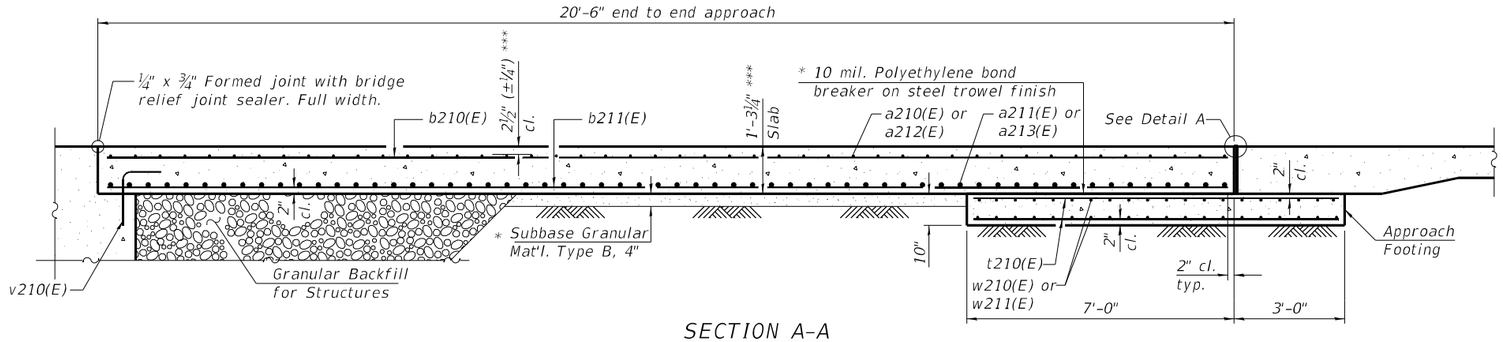
		CONTRACT NO. 78912		
ILLINOIS	FED. AID PROJECT			

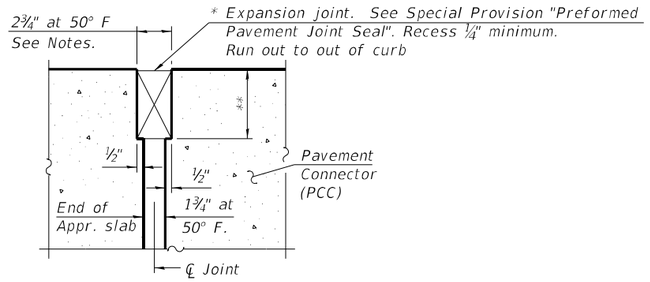


SECTION A-A

Notes:
1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this details is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
2. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid for as Concrete Structures.
4. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
5. Cost of excavation for approach footing included with Concrete Structures.
6. For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 30.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a210(E)	62	#5	20'-9"	———
a211(E)	82	#8	20'-9"	———
a212(E)	62	#5	18'-8"	———
a213(E)	82	#8	18'-8"	———
b210(E)	122	#5	20'-2"	———
b211(E)	190	#9	20'-2"	———
t210(E)	84	#4	9'-9"	———
w210(E)	80	#5	20'-9"	———
w211(E)	80	#5	18'-8"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	38.3
Concrete Structures			Cu. Yd.	24.5
Reinforcement Bars, Epoxy Coated			Pound	30,610
Bar Splicers			Each	224



DETAIL A
(at Rt. ℄'s)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding.

FILE NAME: L:\DOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0037 & 0038\011 0037-0038 Approach Slab Details - SN 044-0037.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS – SN 044–0037
SN 044–0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 11 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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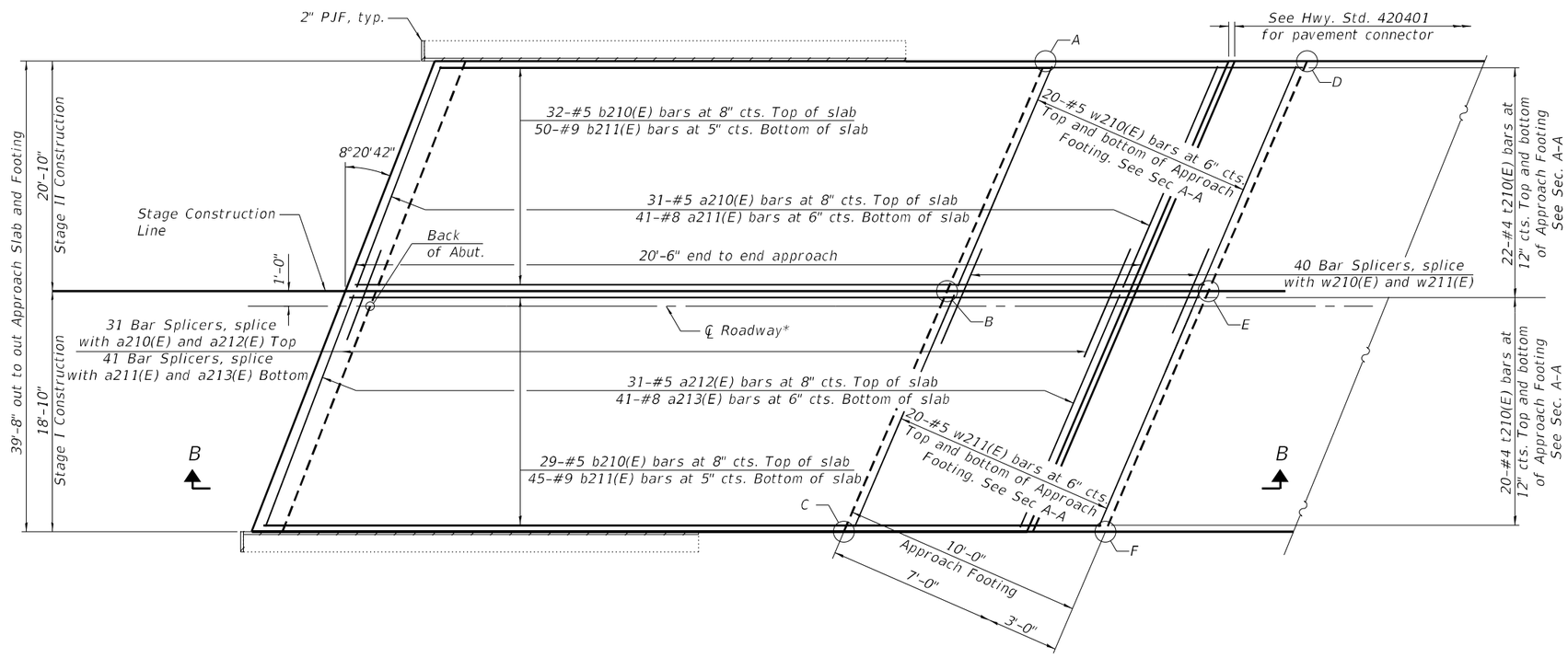
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



PLAN

SN 044-0038 south approach slab shown, north approach slab similar

* Pavement connector shall be paid for as Bridge Approach Pavement Connector (Special). The pavement connector shall be constructed per Hwy. Std. 420401 except that the 15'-0" length shall be 19'-7⅝" for the north pavement connector and 19'-7¾" for the south pavement connector. See Special provision for additional details.

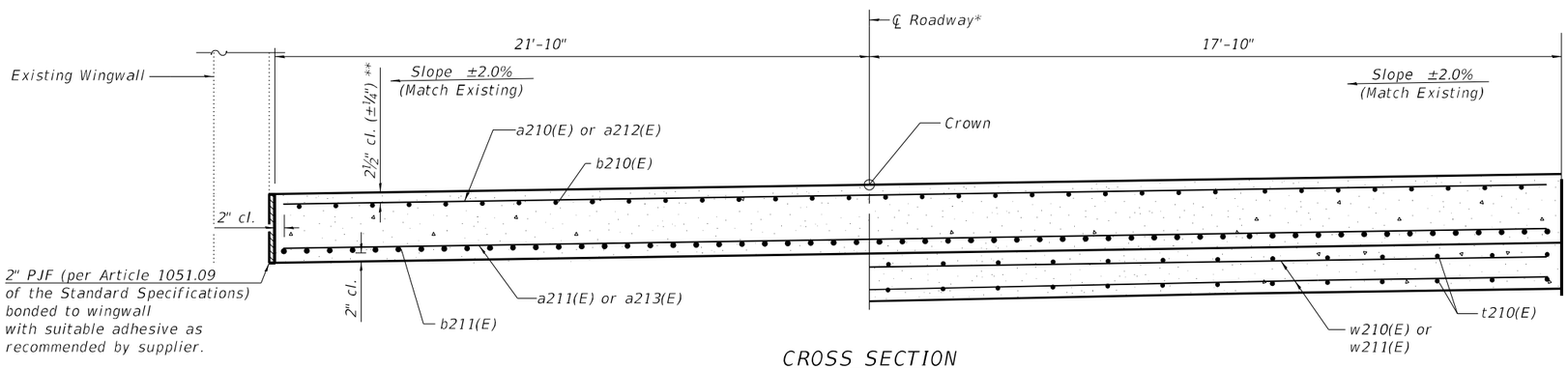
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

S.N. 044-0038				
	North Approach		South Approach	
Point	Top	Bottom	Top	Bottom
A				
B				
C				
D				
E				
F				

1. The approach slab shall be placed to match existing elevations. The Contractor shall place the approach footing for the approach slabs to match existing elevations at grade. Adjustments for settlement of existing approach slabs shall be made as directed by the Engineer. Blank tables included for field notation.

2. See Section B-B on Sheet 13 of 30.

N



NEAR ABUTMENT

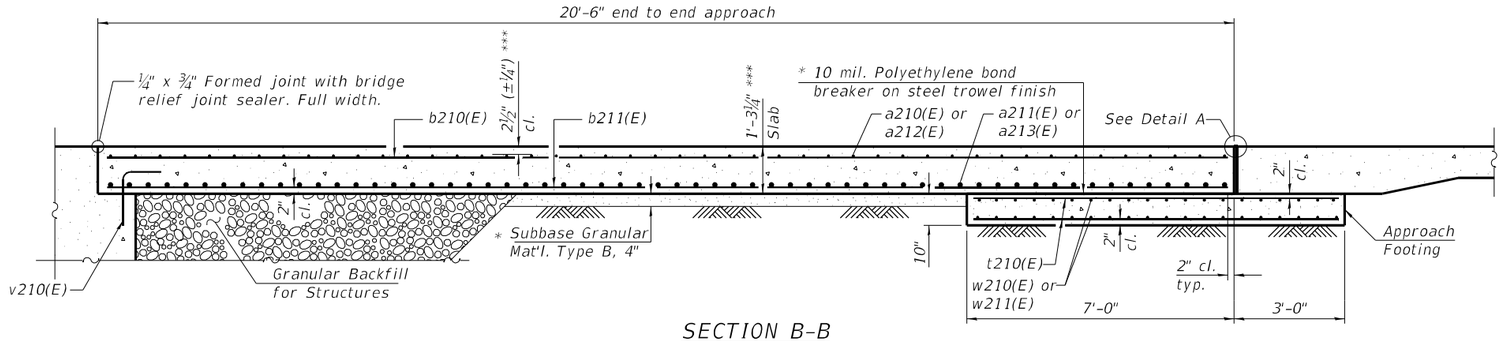
CROSS SECTION

(Looking in the direction of traffic)

AT APPROACH FOOTING

* Due to roadway curvature, approximate location shown

** Prior to diamond grinding

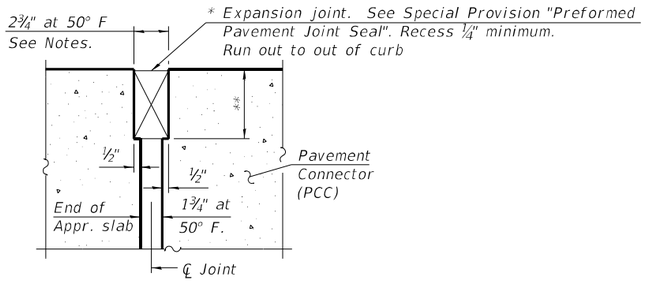


SECTION B-B

Notes:
1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
2. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid for as Concrete Structures.
4. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
5. Cost of excavation for approach footing included with Concrete Structures.
6. For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 30.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a210(E)	62	#5	20'-9"	———
a211(E)	82	#8	20'-9"	———
a212(E)	62	#5	18'-8"	———
a213(E)	82	#8	18'-8"	———
b210(E)	122	#5	20'-2"	———
b211(E)	190	#9	20'-2"	———
t210(E)	84	#4	9'-9"	———
w210(E)	80	#5	20'-9"	———
w211(E)	80	#5	18'-8"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	38.3
Concrete Structures			Cu. Yd.	24.5
Reinforcement Bars, Epoxy Coated			Pound	28,960
Bar Splicers			Each	224



DETAIL A
(at Rt. ℄'s)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding.

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DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS – SN 044–0038
SN 044–0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 13 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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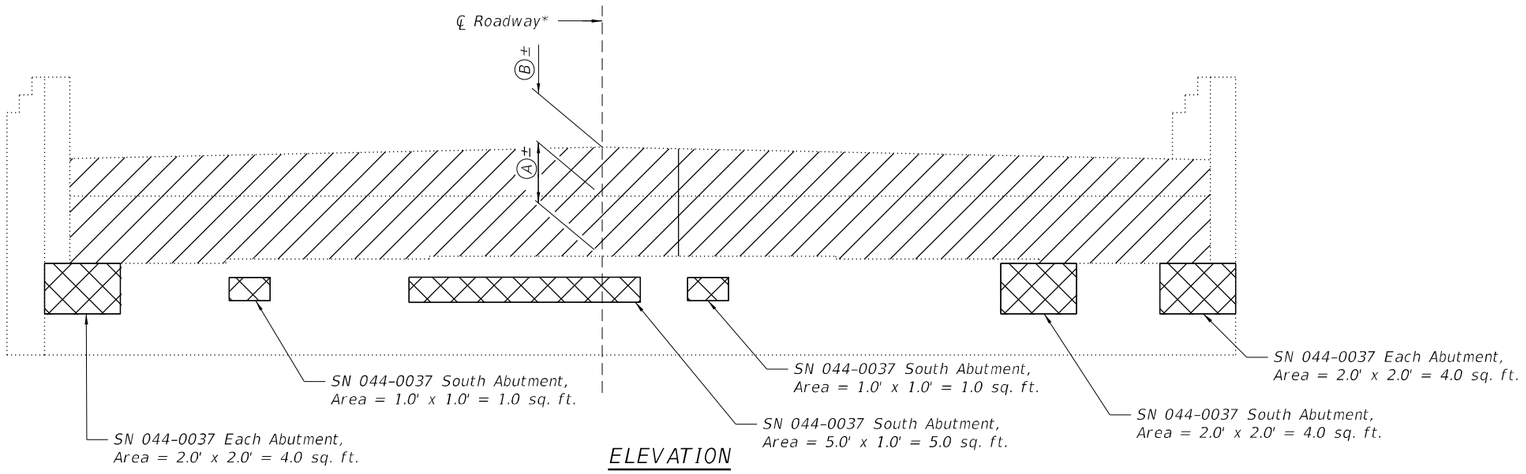
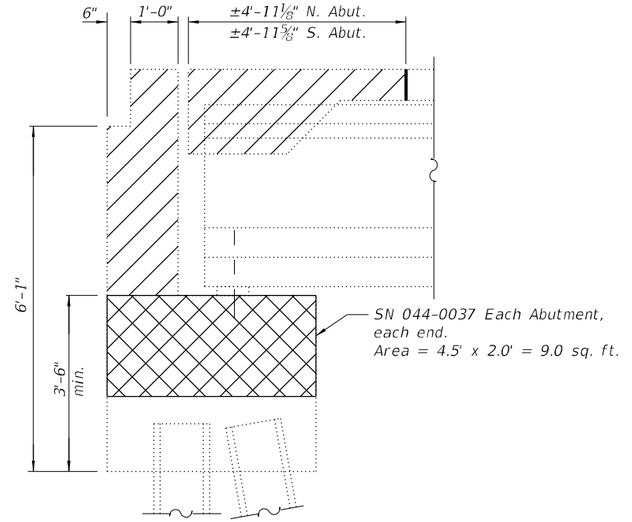
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

SN 044-0037 south abutment shown, SN 044-0037 north abutment similar
SN 044-0038 north abutment shown, SN 044-0038 south abutment similar

Location	Dim. A	Dim. B
044-0037 - North Abutment	2'-4"	1'-8½"
044-0037 - South Abutment	2'-4"	1'-6⅞"
044-0038 - North Abutment	2'-4⅛"	1'-6⅜"
044-0038 - South Abutment	2'-4⅛"	1'-6⅛"



SECTION THRU ABUTMENT

PLAN

SN 044-0037 south abutment shown, SN 044-0037 north abutment similar
SN 044-0038 north abutment shown, SN 044-0038 south abutment similar

* *Due to roadway curvature, approximate location shown for SN 044-0038*

LEGEND

Concrete Removal

Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	37.2
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	112

Notes:
1. *A nominal quantity of 25 sq. ft. per bridge of Structural Repair of Concrete (Depth Equal to or Less than 5 Inches) is included for additional repairs in the field as determined by the Engineer.*
2. *Pile Bent Cap quantity included in Bill of Material.*
3. *The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PPC I-Beams or other structural elements not intended for removal shall be repaired at no additional cost to the Department.*

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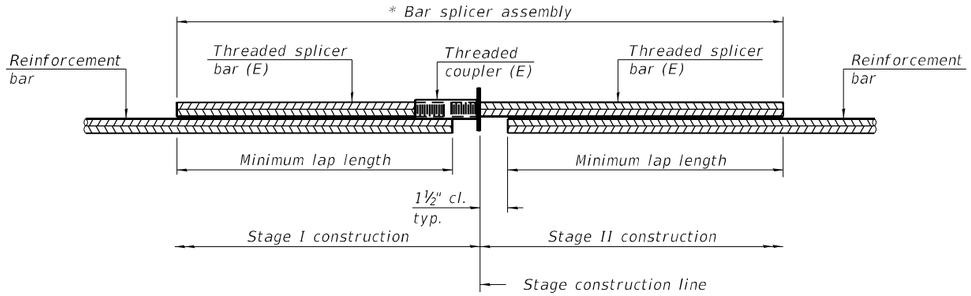
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 14 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	144
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY PLAN

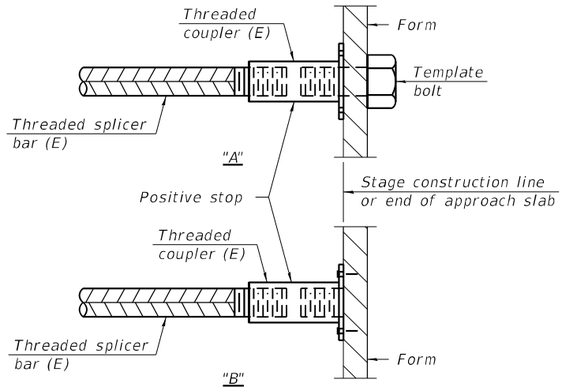
(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1½" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

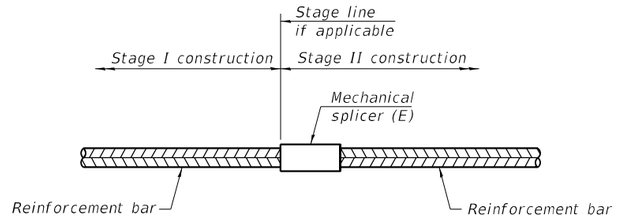
Location	Bar size	No. assemblies required	Minimum lap length
044-0037 N. Abut. Superstructure	#5	26	3'-6"
044-0037 N. Abut. Diaphragm	#6	5	4'-4"
044-0037 N. Abut. Diaphragm	#6	2	**
044-0037 N. Abut. Diaphragm	#6	2	***
044-0037 N. Abut. Diaphragm	#6	2	****
044-0037 N. Approach Slab	#5	31	3'-6"
044-0037 N. Approach Slab	#8	41	4'-9"
044-0037 N. Approach Slab Footing	#5	40	3'-6"
044-0037 S. Abut. Superstructure	#5	26	3'-6"
044-0037 S. Abut. Diaphragm	#6	5	4'-4"
044-0037 S. Abut. Diaphragm	#6	2	**
044-0037 S. Abut. Diaphragm	#6	2	***
044-0037 S. Abut. Diaphragm	#6	2	****
044-0037 S. Approach Slab	#5	31	3'-6"
044-0037 S. Approach Slab	#8	41	4'-9"
044-0037 S. Approach Slab Footing	#5	40	3'-6"
044-0038 N. Abut. Superstructure	#5	26	3'-6"
044-0038 N. Abut. Diaphragm	#6	5	4'-4"
044-0038 N. Abut. Diaphragm	#6	2	**
044-0038 N. Abut. Diaphragm	#6	2	***
044-0038 N. Abut. Diaphragm	#6	2	****
044-0038 N. Approach Slab	#5	31	3'-6"
044-0038 N. Approach Slab	#8	41	4'-9"
044-0038 N. Approach Slab Footing	#5	40	3'-6"
044-0038 S. Abut. Superstructure	#5	26	3'-6"
044-0038 S. Abut. Diaphragm	#6	5	4'-4"
044-0038 S. Abut. Diaphragm	#6	2	**
044-0038 S. Abut. Diaphragm	#6	2	***
044-0038 S. Abut. Diaphragm	#6	2	****
044-0038 S. Approach Slab	#5	31	3'-6"
044-0038 S. Approach Slab	#8	41	4'-9"
044-0038 S. Approach Slab Footing	#5	40	3'-6"

** 1'-9" minimum lap on Stage I side, 3'-10" bar on Stage II side.
*** 2'-0" minimum lap on Stage I side, 4'-1' bar on Stage II side.
**** 1'-6" minimum lap on Stage I side, 3'-7' bar on Stage II side.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:
1. Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
2. All reinforcement shall be lapped and tied to the splicer bars.
3. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
4. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-1-2020

FILE NAME: L:\IDOT\190610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\015 0037-0038 Bar Splicer Assembly and Mechanical Splicer Details.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 044-0037 (E.B.) & 044-0038 (W.B.)

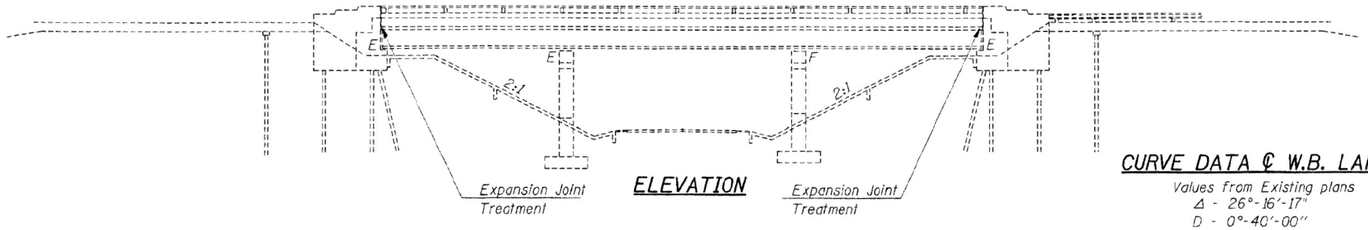
SCALE: | SHEET 15 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	145
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

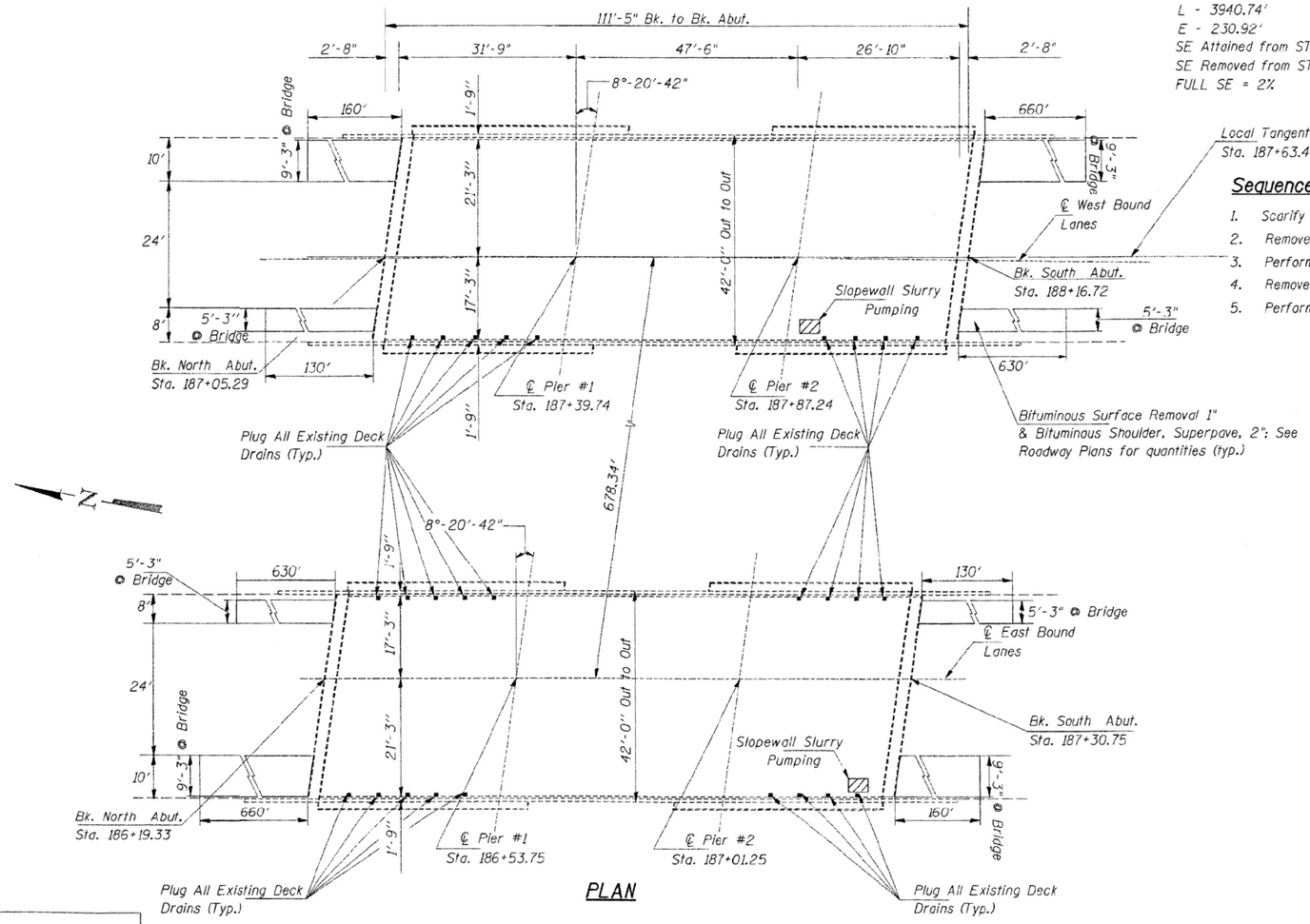
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	**	189	143
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* X1-2.44(2,3,4)RS,BSMARTFY04-4
** WILLIAMSON/JOHNSON CONTRACT NO. 98758



ELEVATION



PLAN

CURVE DATA ℄ W.B. LANES

Values from Existing plans
Δ - 26°-16'-17"
D - 0°-40'-00"
R - 8594.37'
T - 2005.62'
L - 3940.74'
E - 230.92'
SE Attained from STA 151+13.90 To STA 153+13.90
SE Removed from STA 193+21.27 To STA 191+21.27
FULL SE = 2%

Sequence of Construction

1. Scarify and Resurface Existing Shoulders
2. Remove Stage I Areas
3. Perform Stage I Repairs and Overlay
4. Remove Stage II Areas
5. Perform Stage II Repairs and Overlay

GENERAL NOTES

Fill undermined area under the existing slopewall as directed by the Engineer with Slopewall Slurry Pumping. Paid for as Slopewall Slurry Pumping. The quantity is estimated at 4.5 Cu.Yd.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Scope of Work

- Scarify existing ±9" thick bituminous shoulders and resurface with bituminous shoulders.
- Scarify existing bare deck
- Eliminate drains
- Microsilica Concrete Overlay
- Expansion Joint Treatment
- Slopewall Slurry Pumping
- Haunch and Backwall Repair

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL	0037	0038
Bridge Deck Hydro-Scarification ½"	Sq. Yd.	926	463	463
Plug Existing Deck Drains	Each	27	18	9
Bridge Deck Microsilica Concrete Overlay 2¼"	Sq. Yd.	926	463	463
Polymer Concrete	Cu. Ft.	15.8	7.9	7.9
Silicone Joint Sealer, 1½"	Foot	83	41.5	41.5
Slopewall Slurry Pumping	Cu. Yd.	4.5	3.0	1.5
Bridge Deck Grooving	Sq. Yd.	877	438.5	438.5
Polymer Modified Portland Cement Mortar	Sq. Ft.	110	25	85
Silicone Joint Sealer, 1"	Foot	83	41.5	41.5

GENERAL PLAN AND ELEVATION
FAI 24 OVER T.R. 87
JOHNSON COUNTY
STA. 187+63.49 (WB)
STA. 186+77.50 (EB)
SN 044-0037 (EB)
SN 044-0038 (WB)

DESIGNED	T. Wayne Halstead
CHECKED	MAS
DRAWN	LD TWH
CHECKED	MAS

FOR INFORMATION ONLY

BRIDGE REPAIRS FOR SN 044-0037 AND 044-0038

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\0016 0037-0038 Existing Plans 001.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)
SCALE: | SHEET 16 OF 30 SHEETS | STA. | TO STA.

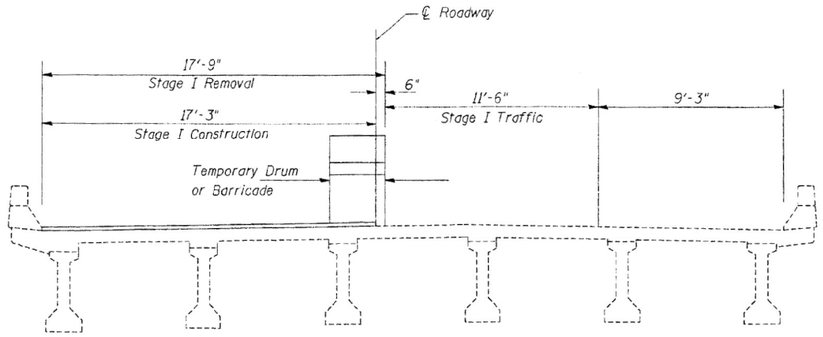
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	146
		CONTRACT NO. 78912		
ILLINOIS	FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

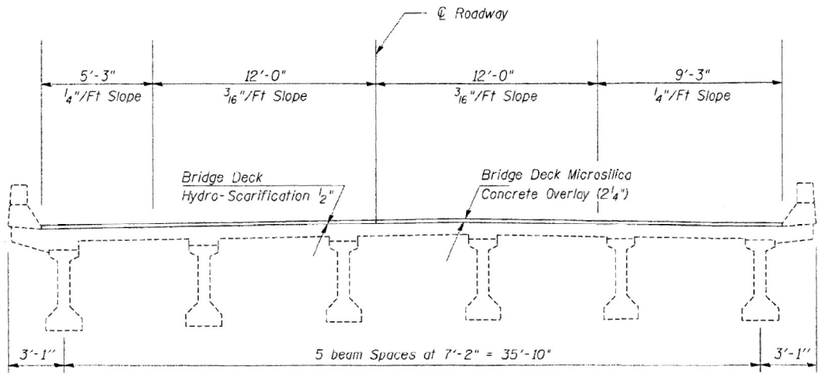
SHEET 3 OF 6

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	**	189	145
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* X1-2,44(2,3,4)RS,BSMARTFY04-4
** WILLIAMSON/JOHNSON
CONTRACT NO. 98758

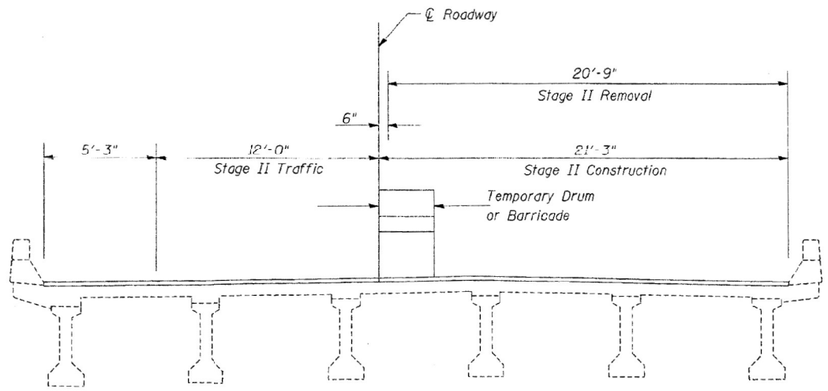


STAGE I



TYPICAL CROSS SECTION

(Proposed cross slope matches the existing normal crown)



STAGE II

Notes: Cross sections are looking in direction of traffic.

The temporary drums or barricades shall be located as shown on this sheet except when workers are present, when they may be temporarily moved over 2'-0" shifting traffic onto the existing bituminous shoulders.

DESIGNED	TWH MAS
CHECKED	MAS
DRAWN	TWH TEB
CHECKED	MAS

FOR INFORMATION ONLY

STAGE CONSTRUCTION DETAILS
JOHNSON COUNTY
SN 044-0037 (EB)

BRIDGE REPAIRS FOR SN 044-0037

FILE NAME: L:\IDOT\190610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\017 0037-0038 Existing Plans 002.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 17 OF 30 SHEETS | STA. | TO STA.

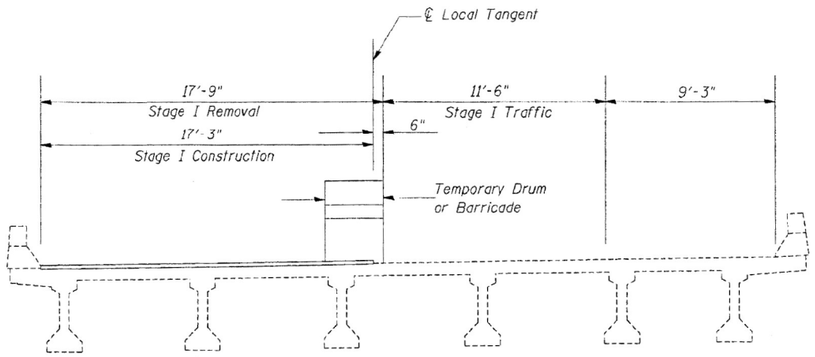
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	147
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

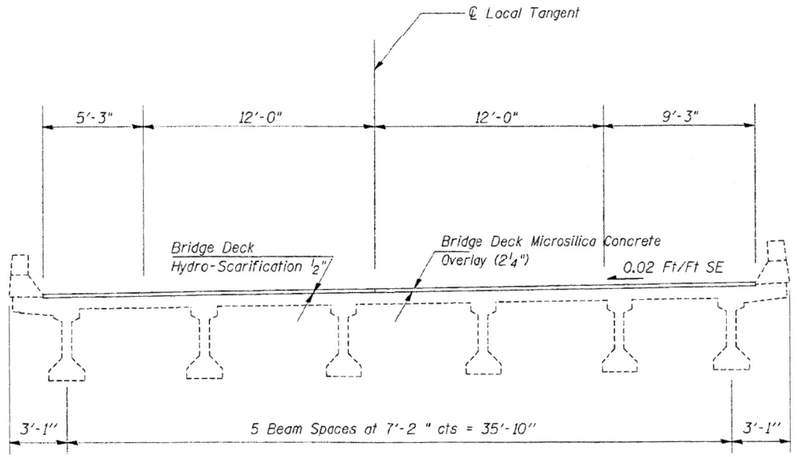
SHEET 4 OF 6

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	*	**	189	146
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* X1-2.44(2,3,4)RS,BSMARTFY04-4
** WILLIAMSON/JOHNSON
CONTRACT NO. 98758

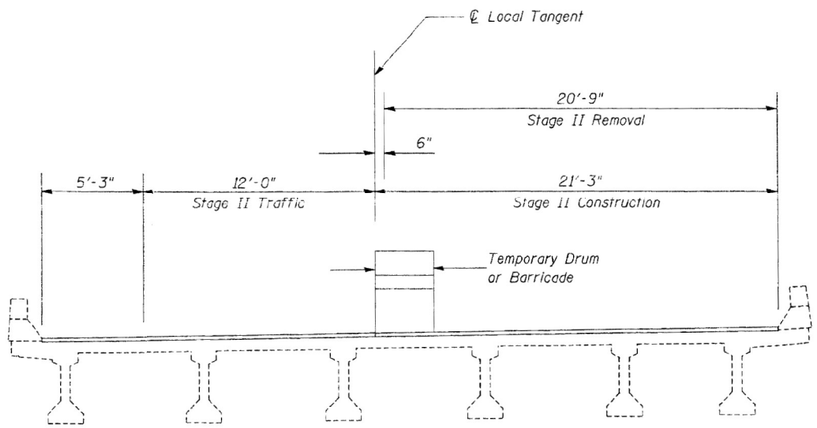


STAGE I



TYPICAL CROSS SECTION

(Proposed cross slope matches the existing 0.02 Ft/Ft SE)



STAGE II

Notes: Cross sections are looking in direction of traffic.

The temporary drums or barricades shall be located as shown on this sheet except when workers are present, when they may be temporarily moved over 2'-0" shifting traffic onto the existing bituminous shoulders.

DESIGNED	TWH MAS
CHECKED	MAS
DRAWN	LD TWH
CHECKED	TWH MAS

FOR INFORMATION ONLY

STAGE CONSTRUCTION DETAILS
JOHNSON COUNTY
SN 044-0038 (WB)

BRIDGE REPAIRS FOR SN 044-0038

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 18 OF 30 SHEETS | STA. | TO STA.

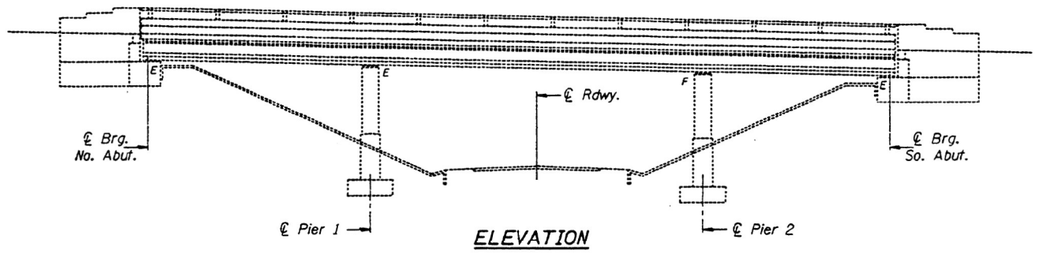
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	148
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

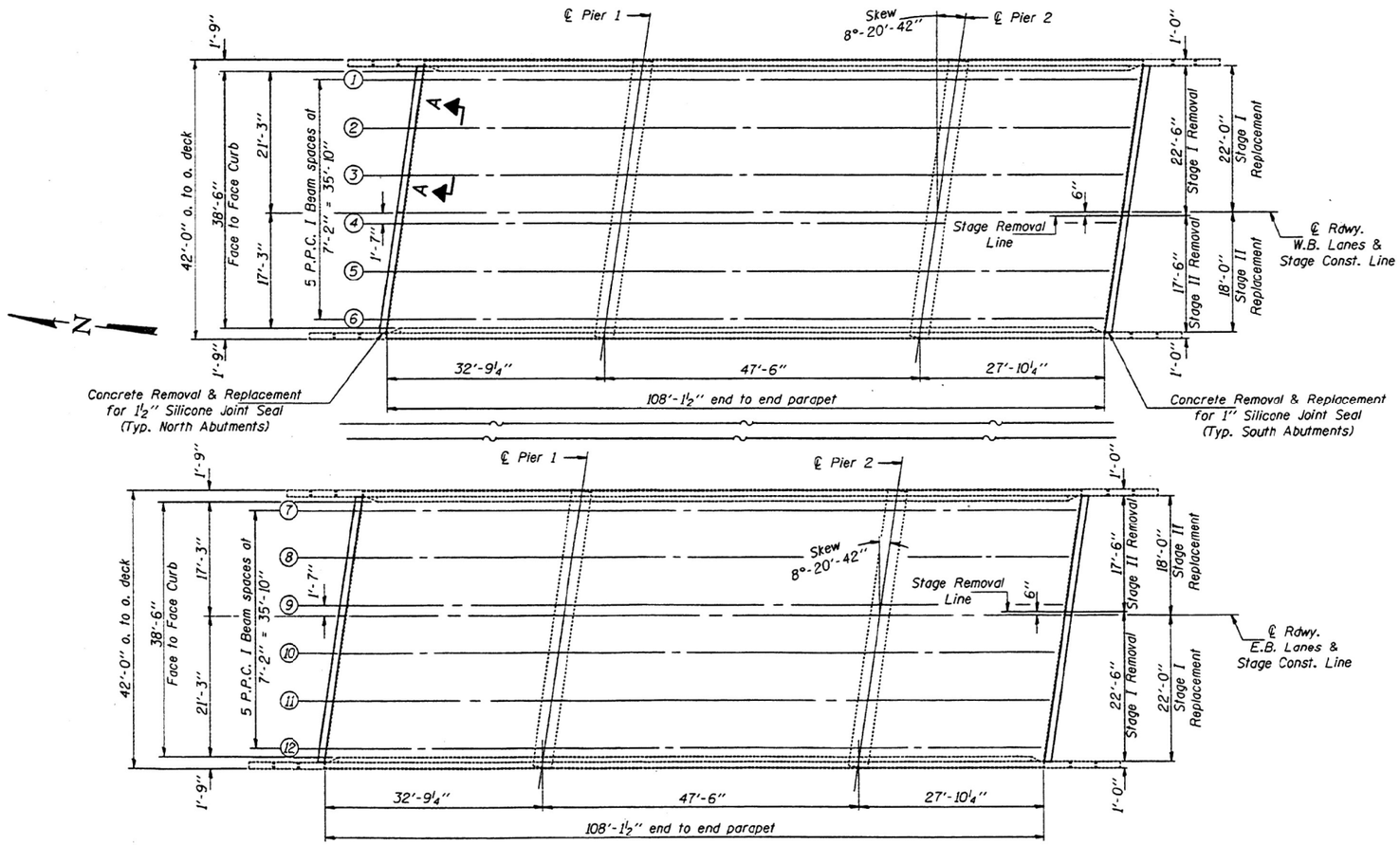
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	*	JOHNSON	19	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
3 SHEETS

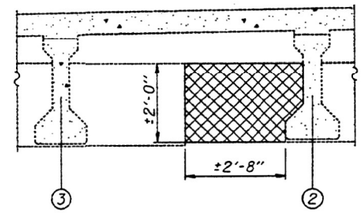
* CONT. BRIDGE MAINT. FY99-1



ELEVATION



PLAN



SECTION A-A

Indicates Polymer Modified Portland Cement Mortar

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M-270 Gr. 36.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All structural steel shall be shop painted with inorganic Zinc Rich Primer as per AASHTO M300, Ty. 1.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yds.	9.1
Concrete Superstructures	Cu. Yds.	8.7
Reinforcement Bars, Epoxy Coated	Pound	840
Bar Splicers	Each	12
Furnishing & Erecting Structural Steel	Pound	3120
Silicone Joint Sealer	Foot	162
Polymer Modified Portland Cement Mortar	Sq. Ft.	6

DESIGNED	CMT
CHECKED	VICTOR H. VELIZ
DRAWN	DHerbert
CHECKED	CMT VHV

APRIL 2. 1998

EXAMINED _____ ENGINEER OF STRUCTURAL SERVICES

PASSED _____ ENGINEER OF BRIDGES AND STRUCTURES

FOR INFORMATION ONLY

BRIDGE REPAIRS
F.A.I. RT. 24 OVER T.R. 87
SEC. 44-4HB
JOHNSON COUNTY
STA. 186+77.50 S.N. 044-0037 (E.B.)
STA. 187+63.49 S.N. 044-0038 (W.B.)

FILE NAME: L:\IDOT\190661\0\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\019 0037-0038 Existing Plans 004.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 19 OF 30 SHEETS | STA. | TO STA.

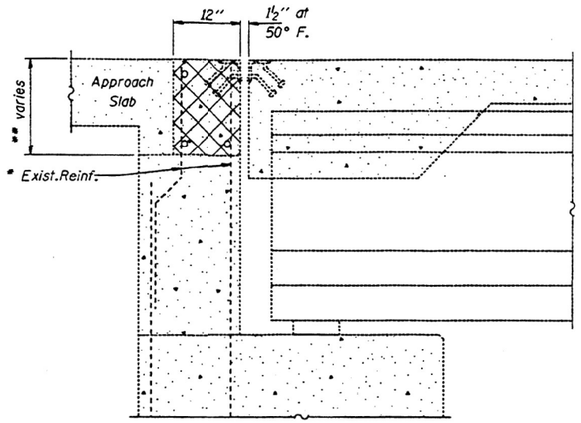
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	149
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

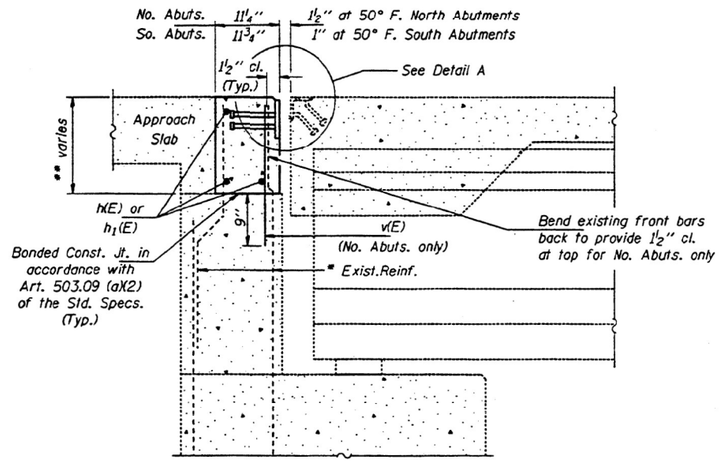
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	*	JOHNSON	19	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
3 SHEETS

* CONT. BRIDGE MAINT. FY99-1



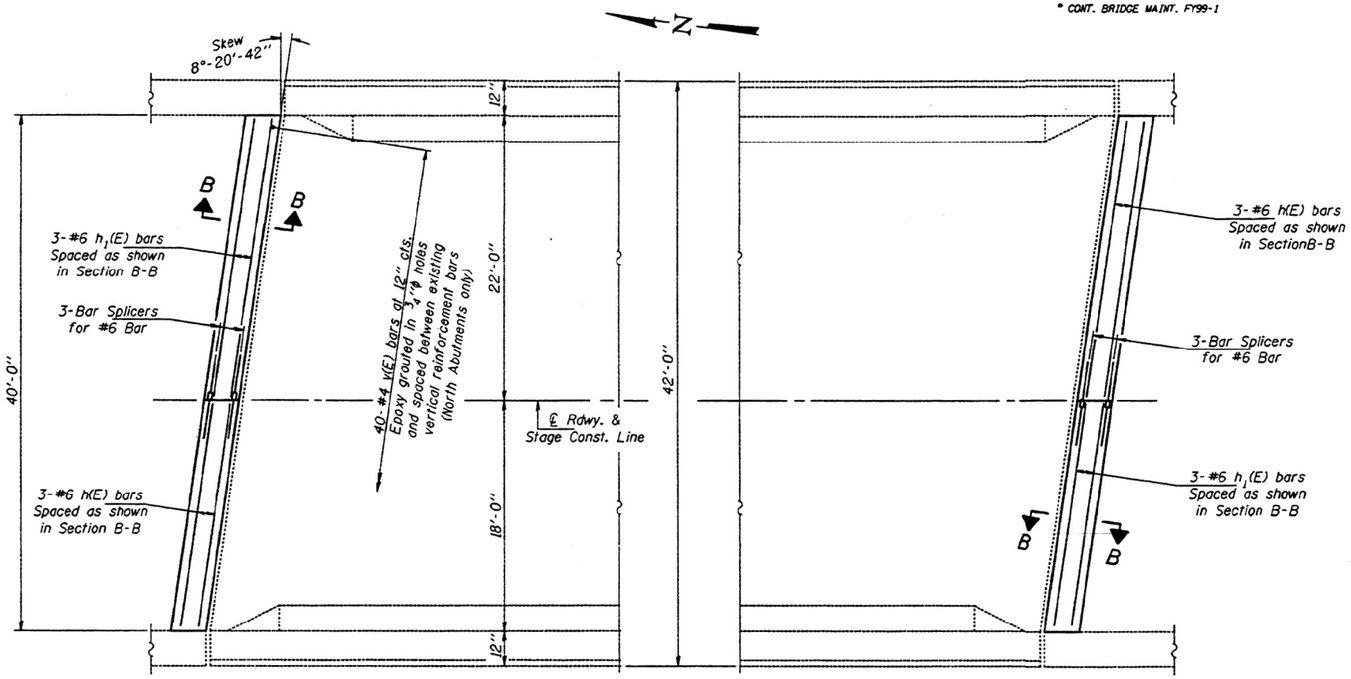
SECTION B-B
(Showing Removal)



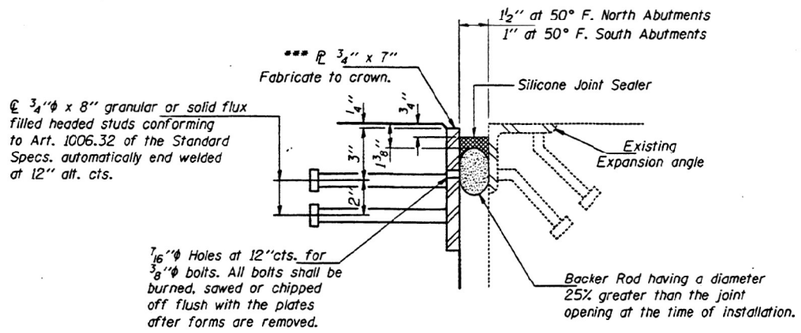
SECTION B-B
(Showing Replacement)

* Existing reinforcement bars extending into the removed area shall be cleaned, straightened and incorporated into the new construction.

** E.B. Lanes
No. Abut. 1'-3½" to 1'-8⅛"
So. Abut. 1'-3⅜" to 1'-6⅞"
W.B. Lanes
No. Abut. 1'-3½" to 1'-11"
So. Abut. 1'-3" to 1'-11"



PARTIAL PLAN
(W.B. Lanes Shown; E.B. Lanes similar by rotation of 180°)



DETAIL A

*** Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be ⅜". Seal space with Silicone Sealant suitable for Structural Steel.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#6	18'-0"	
h1(E)	12	#6	22'-1"	
v(E)	80	#4	2'-0"	
Concrete Removal		Cu. Yd.	9.1	
Concrete Superstructures		Cu. Yd.	8.7	
Reinforcement Bars, Epoxy Coated		Lbs.	840	

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	C.M.E.	APRIL 2, 1998
CHECKED	V.H.V.	EXAMINED Todd E. Adams, ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-Herbert	PASSED
CHECKED	C.M.E. V.H.V.	ENGINEER OF BRIDGES AND STRUCTURES

CONCRETE REMOVAL & REPLACEMENT
F.A.I. RT. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 186+77.50 S.N. 044-0037 (E.B.)
STA. 187+63.49 S.N. 044-0038 (W.B.)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 20 OF 30 SHEETS | STA. | TO STA.

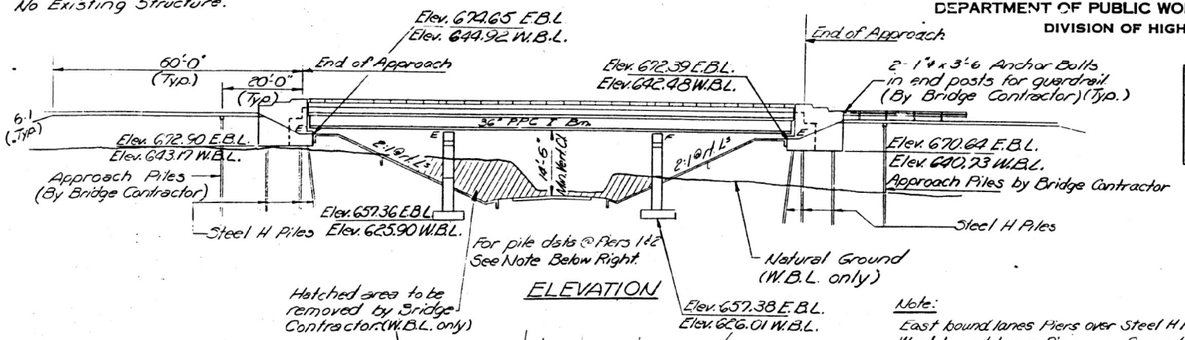
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	150
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

B.M. Spike in 15" Hickory 5' Rt. Sta. 187+95 & W.B.L.
Elev. 629.19
No Existing Structure.

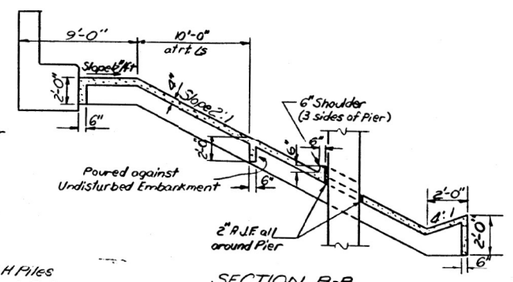
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 24	44-4HB	Johnson	132	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO/ 21 SHEETS



Note:
East bound lanes Piers over Steel H Piles
West bound lanes Piers over Spread Footing



SECTION B-B

STATION 187+63.49
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 24 SEC. 44-4HB
PROJECT I-24-1(50)
LOADING HS20 & Alt.

NAME PLATE
West Bound
See Std. 2113-1

STATION 186+77.50
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 24 SEC. 44-4HB
PROJECT I-24-1(50)
LOADING HS20 & Alt.

NAME PLATE
East Bound
See Std. 2113-1

GENERAL NOTES

All reinforcement bars shall be bent 24 diameters unless otherwise shown.

Slope wall shall be reinforced with welded wire fabric 6"x 6" mesh, weighing 58# per 100 sq. ft.

The Contractor shall drive 1 steel (8 BP 36) test pile each in a permanent location at So. Abut. W.B.L., No. Abut. E.B.L. & Pier 1 E.B.L. as directed by the Engineer before ordering the remainder of Piles.

Class A Excavation for structures includes excavation for Slope Wall.

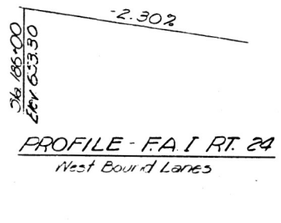
An alternate strand pattern using Extra High Strength Prestressing Strand (270 K.S.I.) is permitted.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

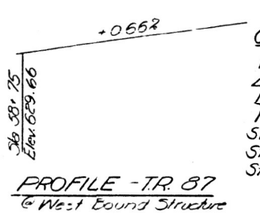
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Calculated weight of Structural Steel = 4540 Lbs.

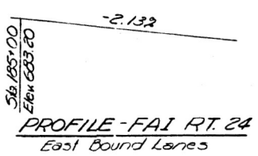
The Basic Lead Silico Chromate paint system shall be used for shop and field painting of Structural Steel.



PROFILE - F.A.I. RT. 24
West Bound Lanes



PROFILE - T.R. 87
@ West Bound Structure



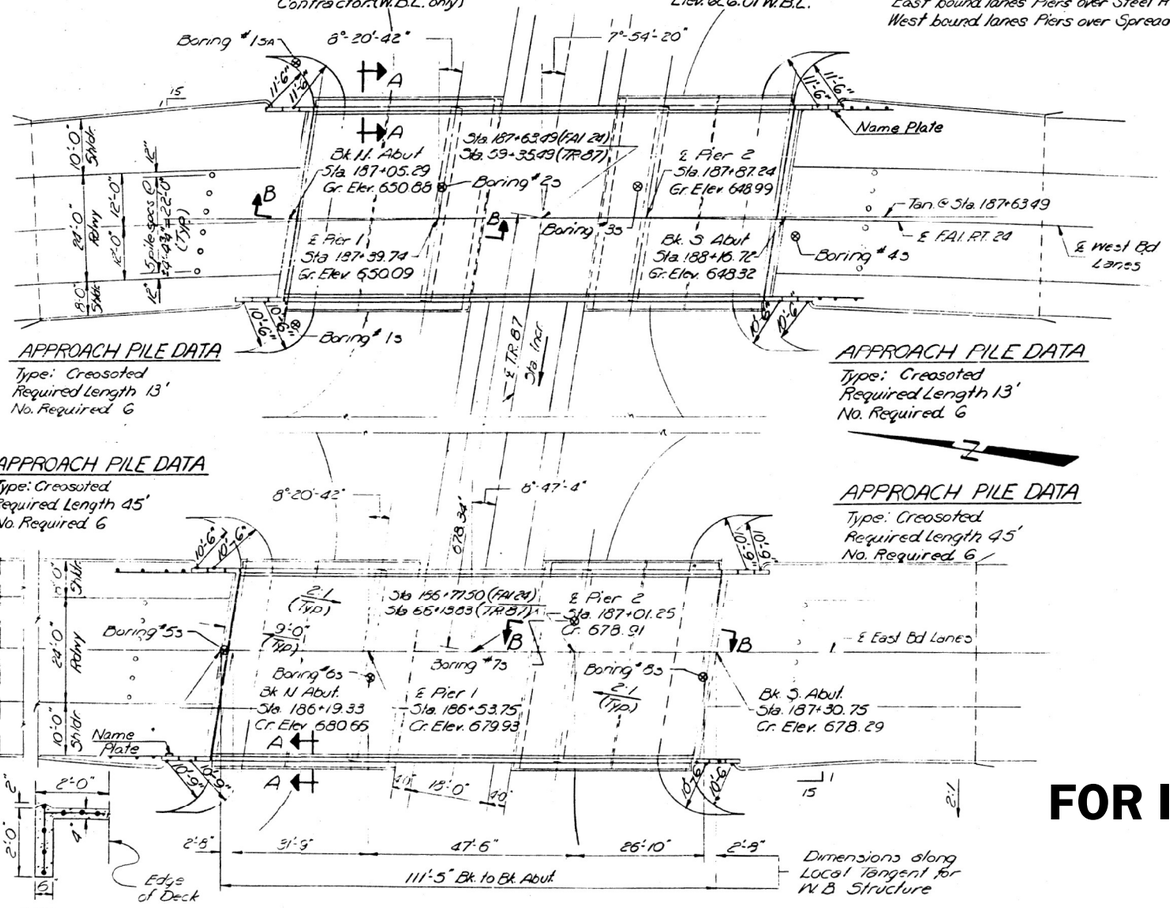
PROFILE - F.A.I. RT. 24
East Bound Lanes

CURVE DATA & W.B. LANES

P.I. Sta. 172+52.85
Δ = 26°16'-17" T = 2005.62'
D = 0°-40'-00" L = 3940.71'
R = 8594.37' E = 230.92'
SE Attained SE = 0.020%
Sta. 151+13.90 to Sta. 153+13.90
Sta. 193+21.27 to Sta. 191+21.27

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu. Yds.		233	233
Protective Coat	Sq. Yds.	1140		1140
Class X Concrete	Cu. Yds.	328.3	377.1	705.4
Precast Prestressed Concrete I Beam (36")	Lin. Ft.	1281		1281
Structural Steel	L.S.	1		1
Aluminum Railing	Lin. Ft.	433		433
Reinforcement Bars	Lbs.	77040	51840	128880
Creosoted Piles up to 20'	Lin. Ft.		156	156
Creosoted Piles over 35'	Lin. Ft.		540	540
Steel Piles (8 BP 36)	Lin. Ft.		2280	2280
Test Pile Steel (8 BP 36)	Each		3	3
Name Plates	Each	2		2
Slope Wall (9")	Sq. Yds.		980	980
Preformed Joint Sealer	Lin. Ft.	170		170



APPROACH PILE DATA
Type: Creosoted
Required Length 13'
No. Required 6

APPROACH PILE DATA
Type: Creosoted
Required Length 13'
No. Required 6

APPROACH PILE DATA
Type: Creosoted
Required Length 45'
No. Required 6

APPROACH PILE DATA
Type: Creosoted
Required Length 45'
No. Required 6

SEC A-A

PLAN

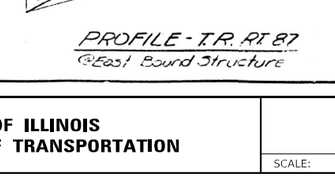
DESIGNED	J. M. Patel
CHECKED	N. K. & V. Chadalavada
DRAWN	R. Doty
CHECKED	N. K. L.

EXAMINED July 29 1970
PASSED
APPROVED
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

DESIGN STRESSES

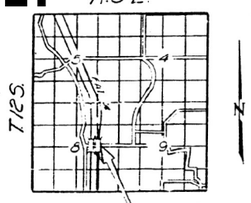
PRECAST PRESTRESSED UNITS
f'_c = 5000 p.s.i.
f'_{ci} = 4000 p.s.i.
f_s = 248,000 p.s.i. (Strands)
f_{si} = 173,600

FIELD UNITS
f'_c = 1200 p.s.i. Deck Slab
f'_c = 1400 p.s.i. Curb, Parapet, Sub
f_s = 20,000 p.s.i. Reinf.
f_s = 20,000 p.s.i. Struct
v_c = 75 p.s.i. Fitgs.
n = 10
Allowable Future W.S. 25'/0'
LOADING HS 20-44 & Alt.

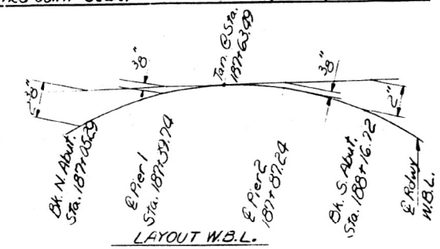


PROFILE - T.R. RT. 87
@ East Bound Structure

FOR INFORMATION ONLY



LOCATION SKETCH



LAYOUT W.B.L.

PLAN AND ELEVATION
F.A.I. RT. 24 OVER T.R. 87
F.A.I. RT. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 187+63.49 (W.B.)
STA. 186+77.50 (E.B.)

CMT License No. 184-000613	USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
		DRAWN - BLH	REVISED -
	PLOT SCALE = N/A	CHECKED - JTH	REVISED -
	PLOT DATE = 3/28/2023 (7:47:54 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)
SCALE: SHEET 21 OF 30 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	151
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

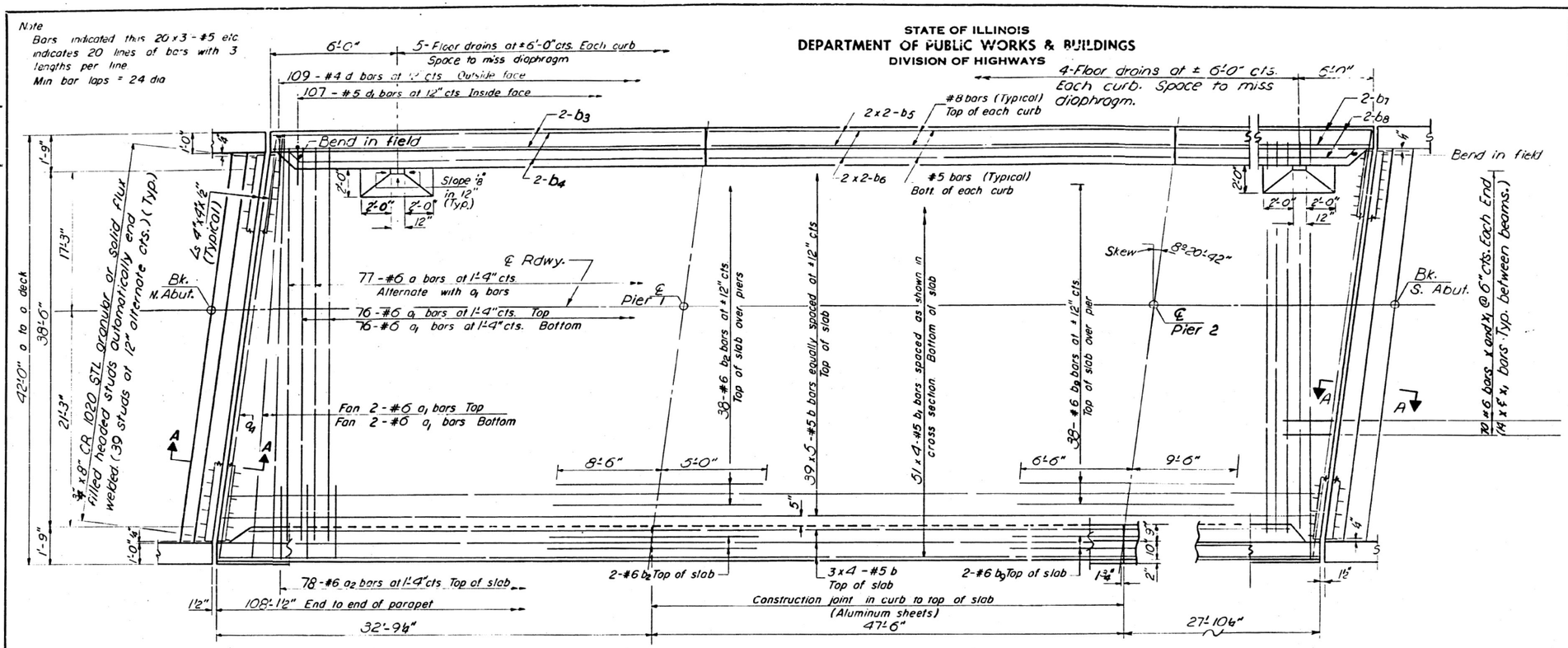
FILE NAME: L:\IDOT\190661\0\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\021 0037-0038 Existing Plans 006.dgn

Note
Bars indicated thus 20 x 3 - #5 etc indicates 20 lines of bars with 3 lengths per line
Min bar laps = 24 dia

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 24	44-4HB	Johnson	132	36
FED. ROAD DIST. NO. 7	SECTION	FED. AID PROJECT		

SHEET NO. 4
21 SHEETS



PLAN

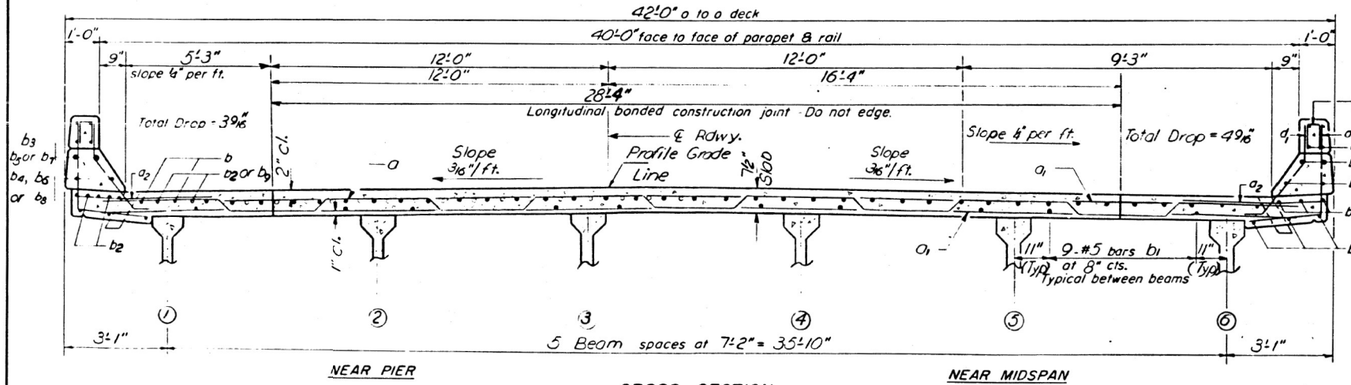
3'-8"
1'-4"
BAR x

1'-4"
2'-3"
BAR x1

Note:
For placement of bars a_3, a_4, ℄ x_1 see Section A-A on Sheet # 7.

BILL OF MATERIAL

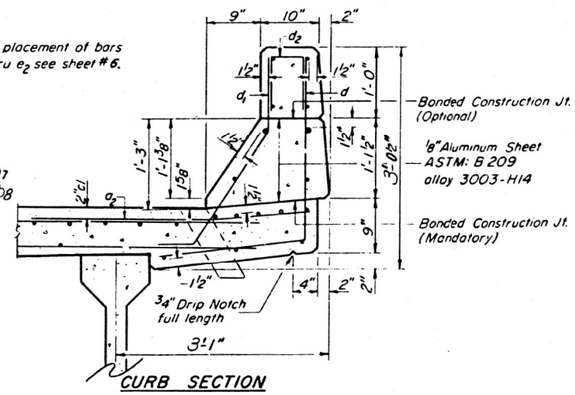
Bar	No	Size	Length	Shape
a	77	#6	41'-8"	
a_1	160	#6	40'-0"	
a_2	156	#6	4'-0"	
a_3	50	#6	6'-6"	
a_4	12	#7	40'-0"	
b	225	#5	22'-9"	
b_1	204	#6	28'-0"	
b_2	42	#6	13'-6"	
b_3	4	#8	32'-6"	
b_4	4	#5	32'-6"	
b_5	8	#8	24'-9"	
b_6	8	#5	24'-6"	
b_7	4	#8	27'-6"	
b_8	4	#5	27'-6"	
b_9	42	#6	16'-0"	
d	218	#4	4'-7"	
d_1	214	#5	3'-5"	
x	140	#6	5'-0"	
x_1	140	#6	2'-7"	
Reinforcement Bars			Lbs	37270
Structural Steel			L.S.	L.S.
Class X Concrete			Cu Yds	157.0



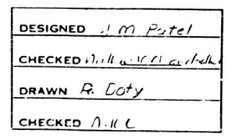
NEAR PIER — NEAR MIDSPAN

CROSS SECTION
LOOKING SOUTH

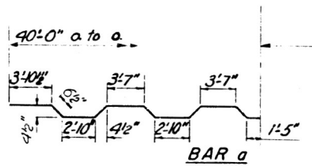
Note: For placement of bars d_2 & e thru e_2 see sheet #6.



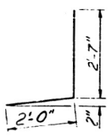
CURB SECTION



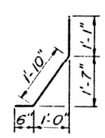
I-4 to 6-L (≤15°) 3-1-68



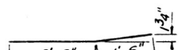
BAR a



BAR d

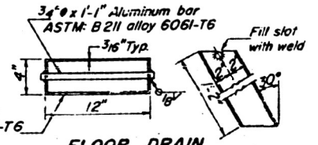


BAR d_1



BAR a_2

Aluminum Sheets Welded ASTM: B209 alloy 6061-T6 or Aluminum Extrusions ASTM: B221 alloy 6061-T6



FLOOR DRAIN
Cost incidental to Class X Concrete

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet #6.

SUPERSTRUCTURE
F.A.I. RT. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 146+77.50
(EASTBOUND)

FOR INFORMATION ONLY

FILE NAME: L:\IDOT\190661\01WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\022 0037-0038 Existing Plans 007.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
	DRAWN - BLH	REVISED -
PLOT SCALE = N/A	CHECKED - JTH	REVISED -
PLOT DATE = 3/28/2023 (7:48:04 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 22 OF 30 SHEETS | STA. | TO STA.

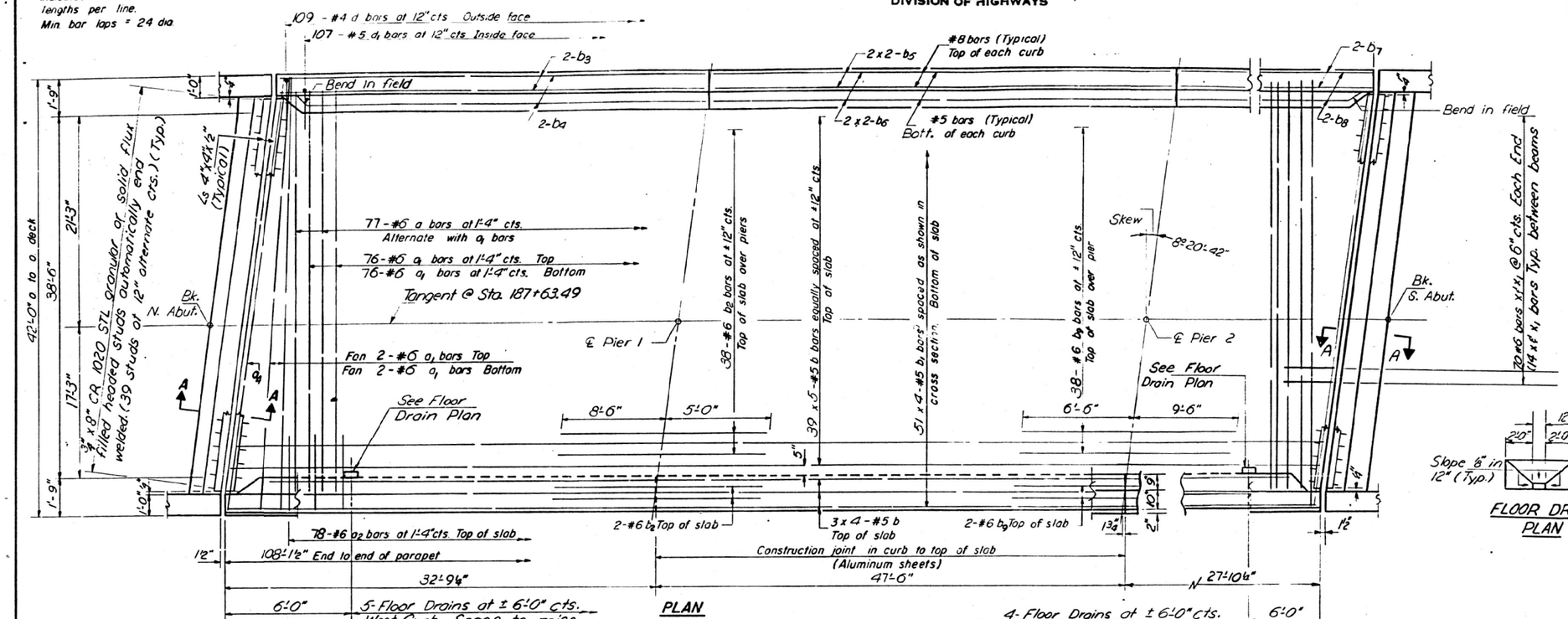
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	152
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

Note
Bars indicated thus 20 x 3 - #5 etc indicates 20 lines of bars with 3 lengths per line.
Min. bar laps = 24 dia.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

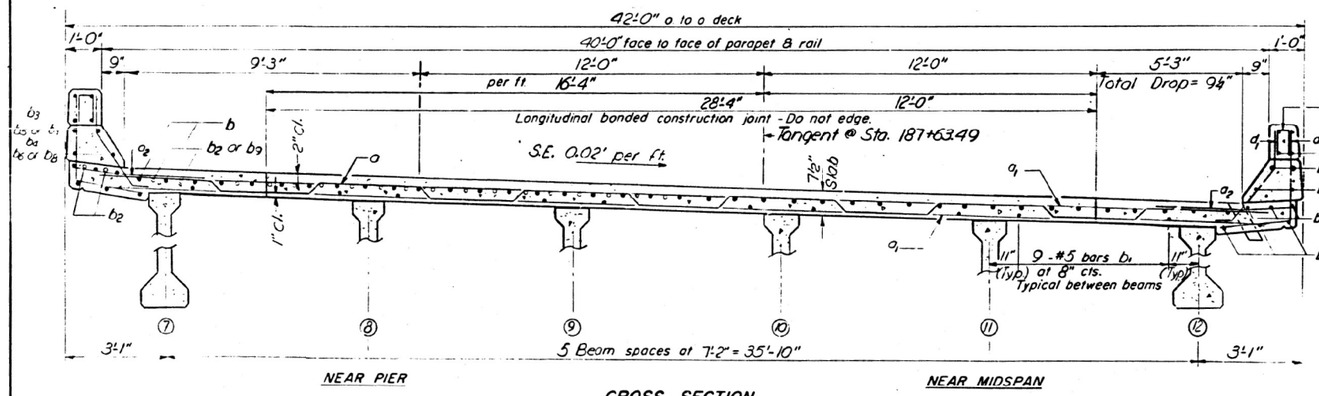
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5
21 SHEETS



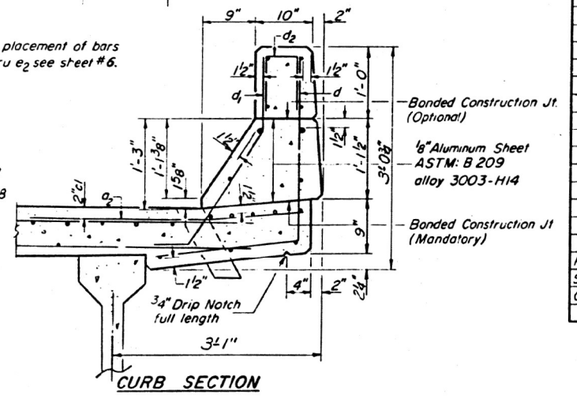
BILL OF MATERIAL

Bar	No	Size	Length	Shape
a	77	#6	41'-8"	
a1	160	#6	40'-0"	
a2	156	#6	4'-0"	
a3	50	#6	6'-6"	
a4	12	#7	40'-0"	
b	225	#5	22'-9"	
b1	204	#6	28'-0"	
b2	42	#6	13'-6"	
b3	4	#8	32'-6"	
b4	4	#5	32'-6"	
b5	8	#8	24'-9"	
b6	8	#5	24'-6"	
b7	4	#8	27'-6"	
b8	4	#5	27'-6"	
b9	42	#6	16'-0"	
d	218	#4	4'7"	
d1	214	#5	3'-5"	
x	140	#6	5'-0"	
x1	140	#6	2'7"	
Reinforcement Bars			Lbs.	37,270
Structural Steel			L.S.	L.S.
Class X Concrete			Cu Yds	157.3

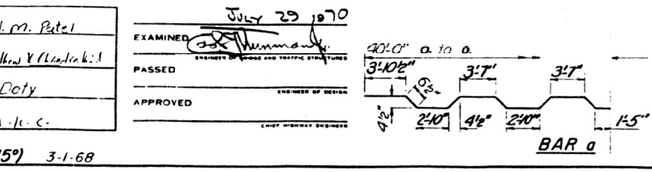


CROSS SECTION
LOOKING SOUTH

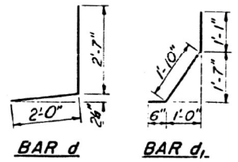
Note For placement of bars d2 & e thru e2 see sheet # 6.



CURB SECTION

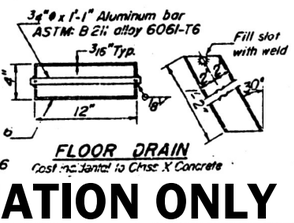


BAR a



BAR d BAR d1

BAR a2



Aluminum Sheets Welded ASTM: B209 alloy 6061-T6 or Aluminum Extrusions ASTM: B221 alloy 6061-T6

FLOOR DRAIN
Cost included in Class X Concrete

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet # 6.

SUPERSTRUCTURE
F.A.I. RTE. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 187 + 63.49
(WESTBOUND)

FOR INFORMATION ONLY

DESIGNED	J. M. Patel
CHECKED	Mathew V Varghese
DRAWN	R. Doty
CHECKED	A. J. C.

EXAMINED July 29 1970
PASSED
APPROVED

I-4106-L (≤15°) 3-1-68

FILE NAME: L:\IDOT\190661\0WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\023 0037-0038 Existing Plans 008.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:48:13 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044–0037 (E.B.) & 0038 (W.B.)

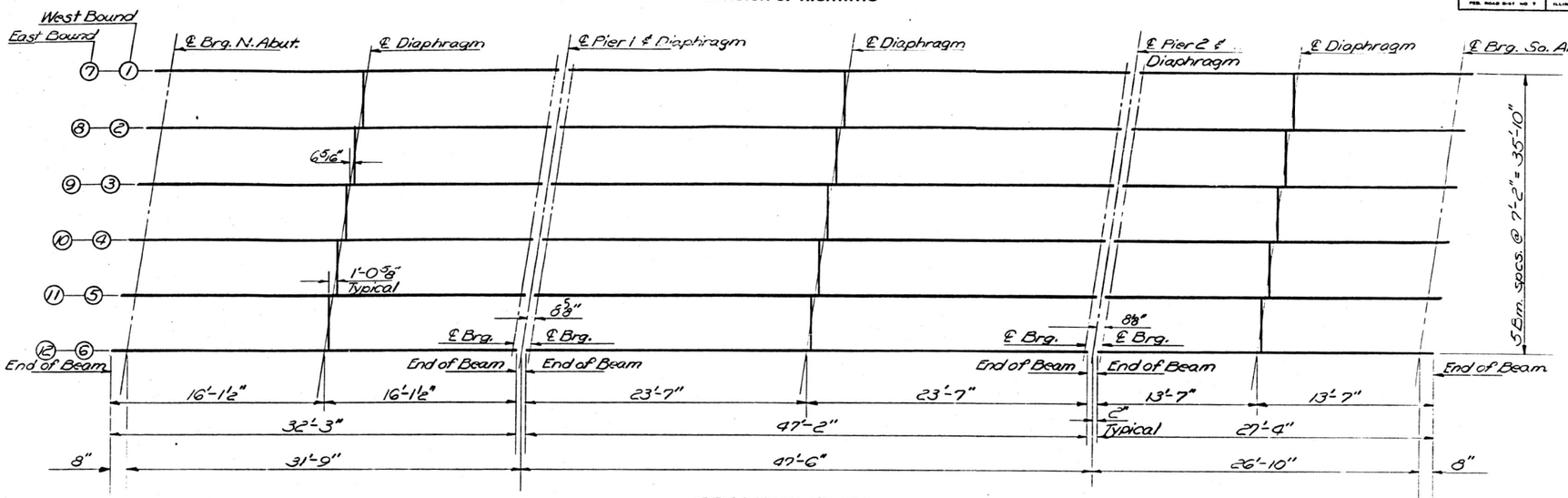
SCALE: | SHEET 23 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	153
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

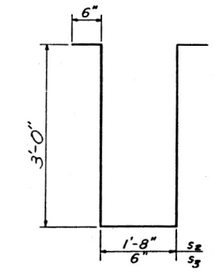
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

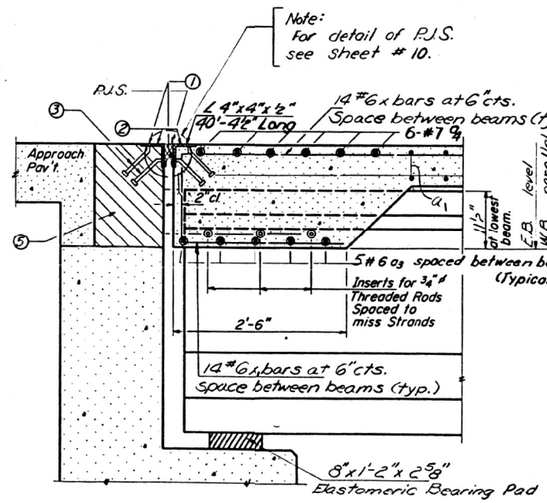
SHEET NO. 7
21 SHEETS



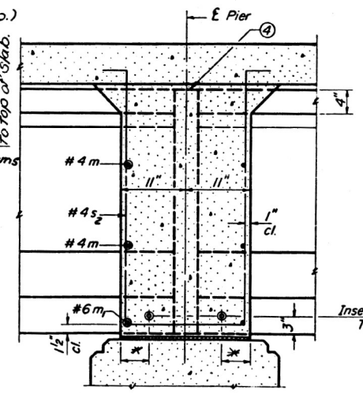
FRAMING PLAN



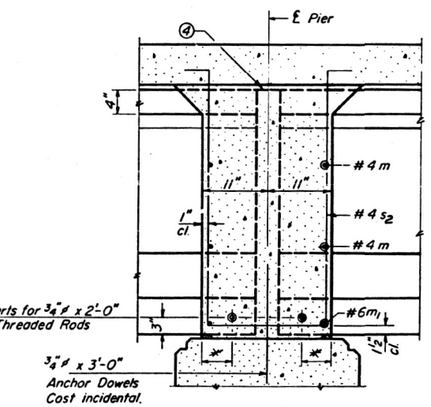
BARS s_2 & s_3



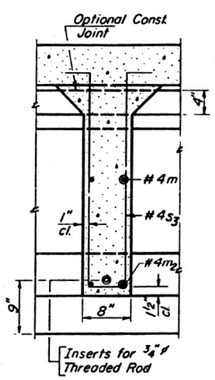
SECTION A-A



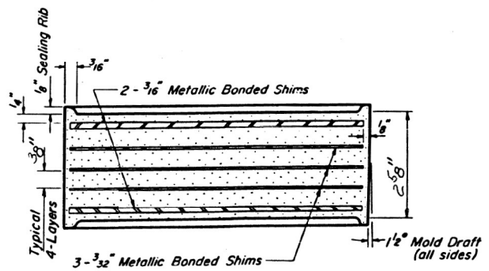
PIER 1



PIER 2



SEC. AT INT. DIAPHRAGM



ELASTOMERIC BEARING DETAIL
See Sheet # 10.

DESIGNED J. M. Patel
CHECKED Walker K Chavalits
DRAWN Wanless J.R.S.
CHECKED A. K. L.

July 29, 1970
EXAMINED — ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

PI-2J 1-27-66

1. 7/16" ∅ holes at 12" cts. for 3/8" ∅ bolts set on normal gage line. All bolts shall be burned, sawed or chipped off flush with the back of angles after forms are removed.
2. 7/16" ∅ vent holes at 12" cts. set on 1'-6" gage line.
3. 3/4" ∅ x 8" CR 1020 STL. granular or solid flux filled headed studs—automatically end welded. (alternate at 1'-0" cts.)
4. Pour diaphragm flush with top of beam. Concrete in slab above this line shall be placed not less than 45 minutes nor more than 90 minutes after diaphragm has been poured.
5. Hatched area to be poured after Superstructure forms have been removed. Quantity of Class X Concrete included with Superstructure.

Bars m, m_1, m_2; s & s_1 are included in Bill of Material on Sheet # 10.
Bars a_3 to a_4 are included in Bill of Material on Sheets # 4 & 5

* See Sheet # 10 for insert locations.

FOR INFORMATION ONLY

FRAMING PLAN
F.A.I. RT. 24 SECTION 44-4HB
JOHNSON COUNTY
STATION 187+63.99 (W.B.L.)
STATION 186+77.50 (E.B.L.)

FILE NAME: L:\IDOT\1906610\WO 18\Draw\Structures\CADD Sheets\SN 044-0037 & 0038\024 0037-0038 Existing Plans 009.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
	DRAWN - BLH	REVISED -
PLOT SCALE = N/A	CHECKED - JTH	REVISED -
PLOT DATE = 3/28/2023 (7:48:23 AM)	DATE - 03/03/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

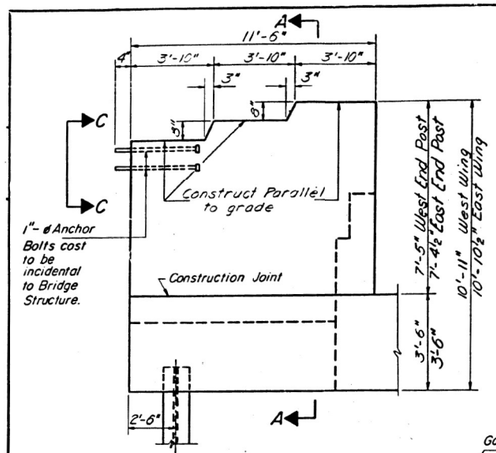
EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)
SCALE: | SHEET 24 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	154
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

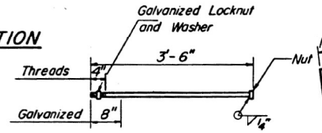
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 24	44-4HB	Johnson	132	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 11
21 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

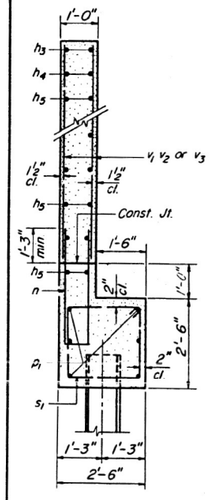


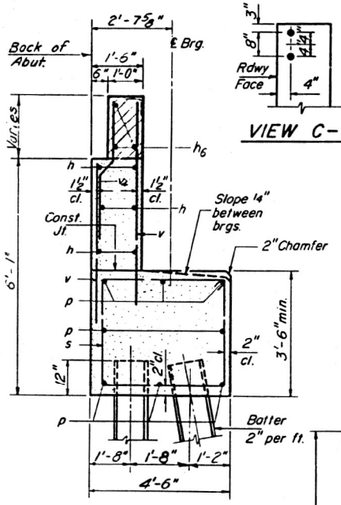
WING WALL ELEVATION

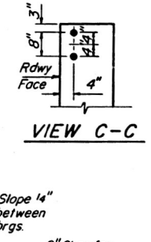


1" ø ANCHOR BOLT

NOTE:
Hatched area shall be poured after superstructure is in place.

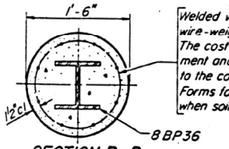






VIEW C-C

SEC. A-A



SECTION D-D
3'-0" Concrete Encasement

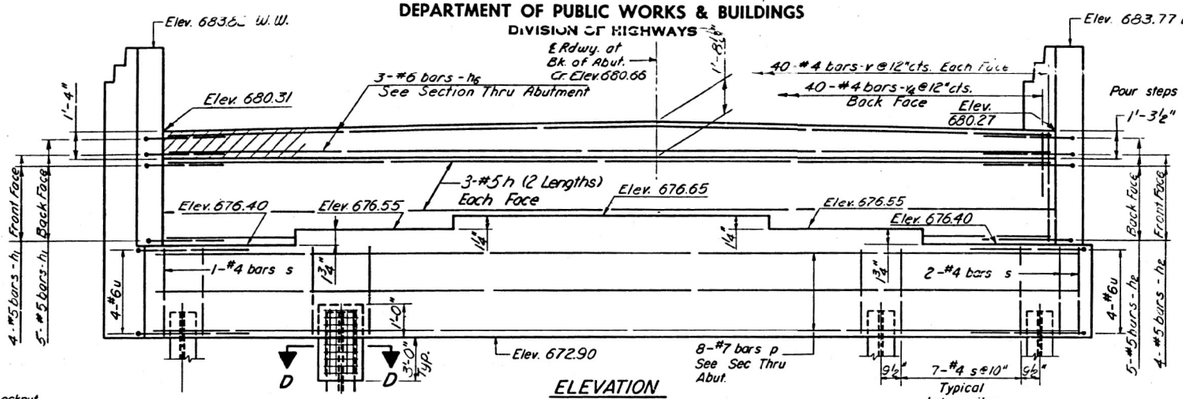
SEC. THRU ABUT.

Welded wire fabric 6"x6 mesh #4 wire-weighing 58 lb/100 sq.ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit. (Typical)

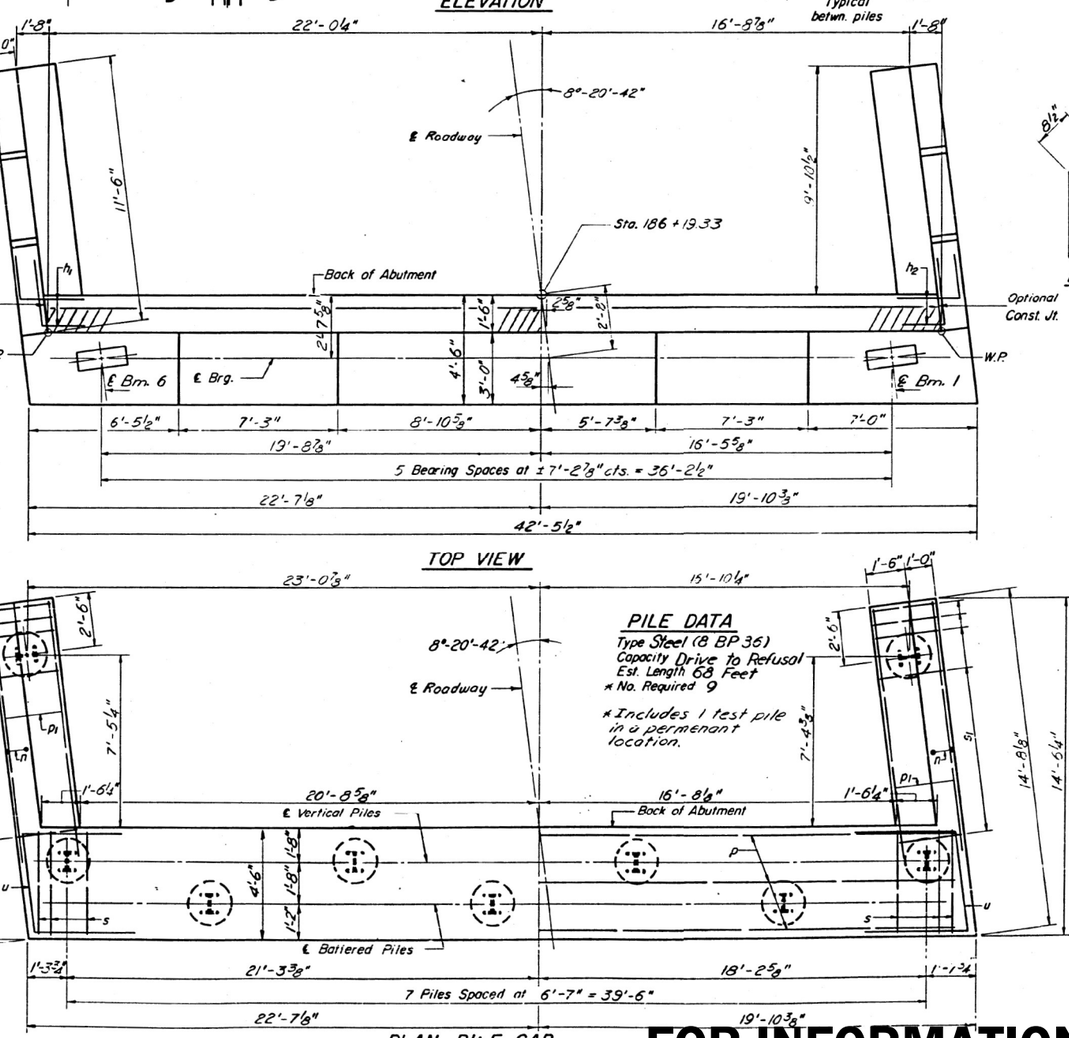
DESIGNED	J. M. Patel
CHECKED	Nathan H. Chandrakant
DRAWN	SG Ferchow G.H.F.
CHECKED	J.H.C.

July 29 1970
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

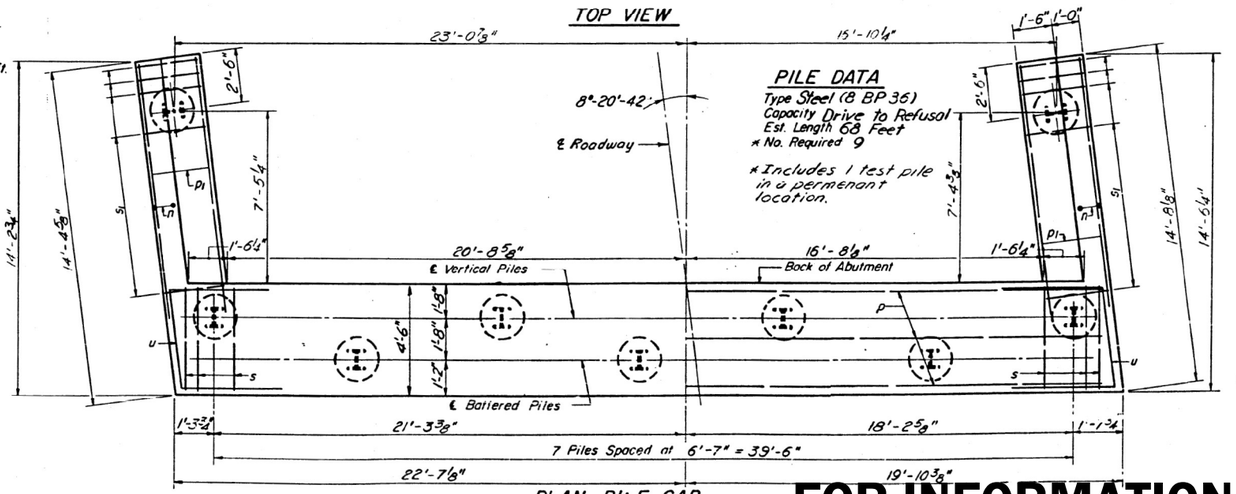
A-9-L (1°-14°) 2-1-66



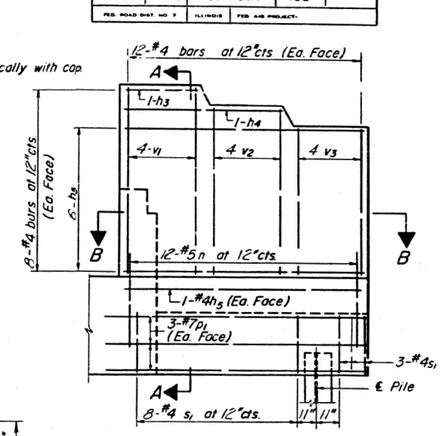
ELEVATION



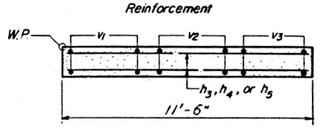
TOP VIEW



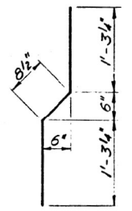
PLAN-PILE CAP



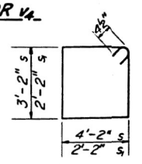
WING WALL ELEVATION
Reinforcement



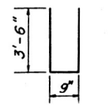
SEC B-B



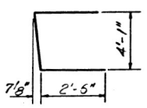
BAR v4



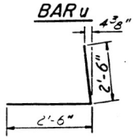
BAR s & s1



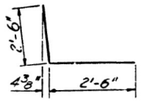
BAR n



BAR u



BAR h2



BAR h1

NORTH ABUTMENT E.B.L.
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	12	#5	20'-9"	
h1	9	#5	5'-0"	
h2	9	#5	5'-0"	
h3	4	#4	3'-6"	
h4	4	#4	7'-3"	
h5	28	#4	11'-3"	
h6	3	#6	40'-0"	
n	24	#5	7'-3"	
p	8	#7	42'-0"	
p1	12	#7	13'-0"	
s	45	#4	15'-5"	
s1	22	#4	9'-5"	
u	8	#6	9'-1"	
v	30	#4	5'-6"	
v1	16	#4	7'-3"	
v2	16	#4	6'-5"	
v3	16	#4	5'-9"	
v4	40	#4	3'-3"	
Class X Concrete			Cu. Yds.	42.3
Reinforcement Bars			Lbs.	3270
Steel Piles			Lin. Ft.	504
Test Piles Steel (8 BP 36)			Ea.	1

NORTH ABUTMENT E.B.L.
F.A.I. RT. 24 — SEC. 44-4HB
JOHNSON COUNTY
STA. 186+77.50

FOR INFORMATION ONLY

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\025 0037-0038 Existing Plans 010.dgn

CMT	USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -
		DRAWN - BLH	REVISED -
	PLOT SCALE = N/A	CHECKED - JTH	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

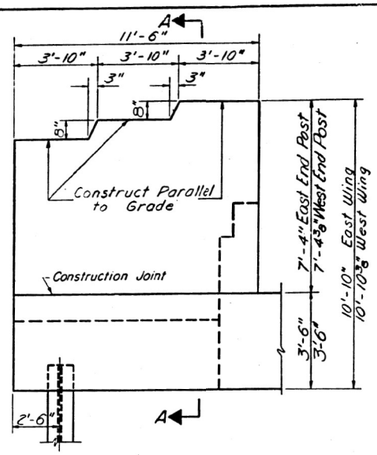
SCALE: | SHEET 25 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	155
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

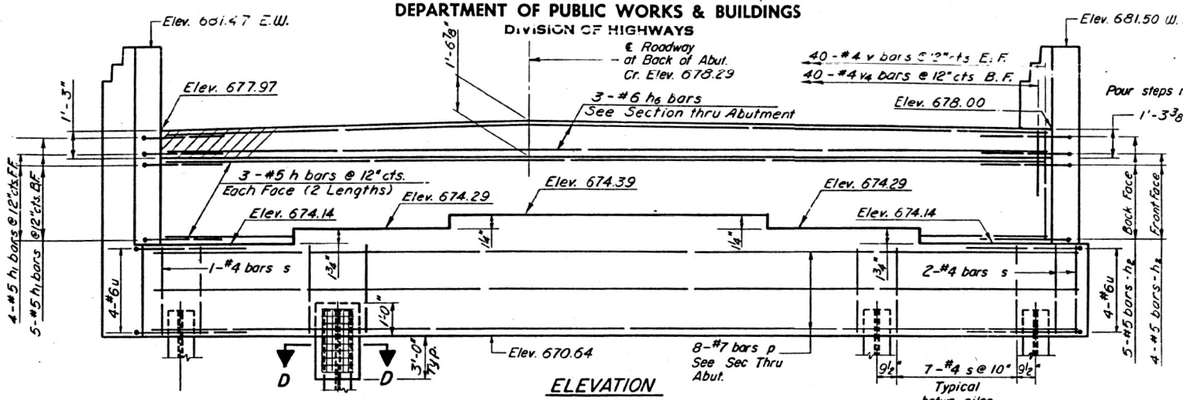
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

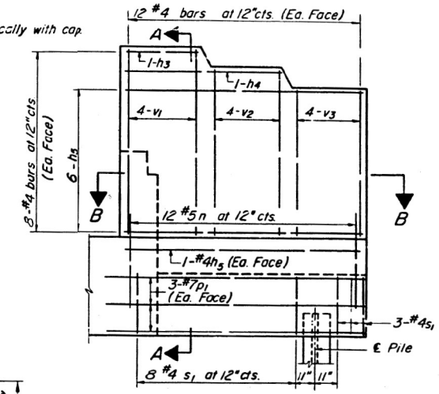
SHEET NO. 12
21 SHEETS



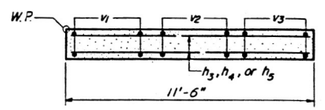
WING WALL ELEVATION



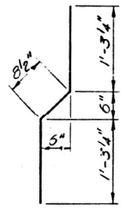
ELEVATION



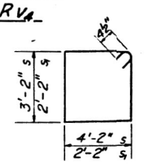
WING WALL ELEVATION
Reinforcement



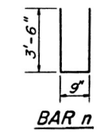
SEC. B-B



BAR v4



BAR s & s1



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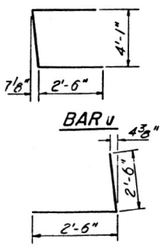
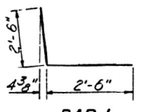


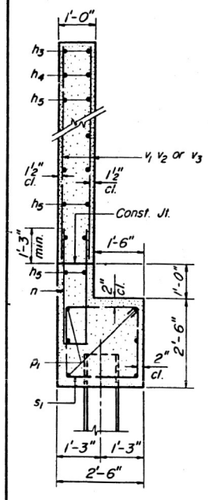
BAR u

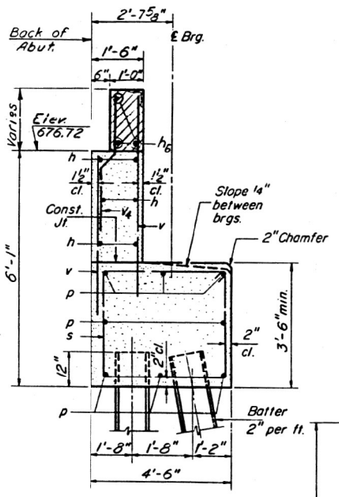
BAR h2



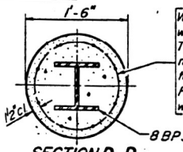
BAR h1

NOTE:
Hatched area shall be poured after superstructure is in place.





SEC. A-A



SECTION D-D
3'-0" Concrete Encasement

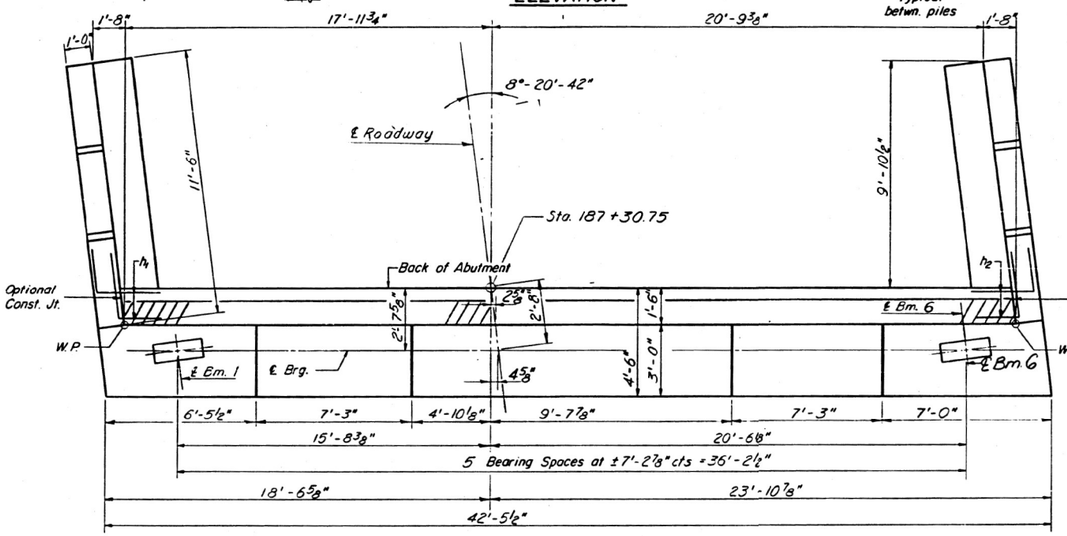
Welded wire fabric 6"x6 mesh #4 wire-weighing 58#/100 sq.ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit. (Typical)

SEC. THRU ABUT.

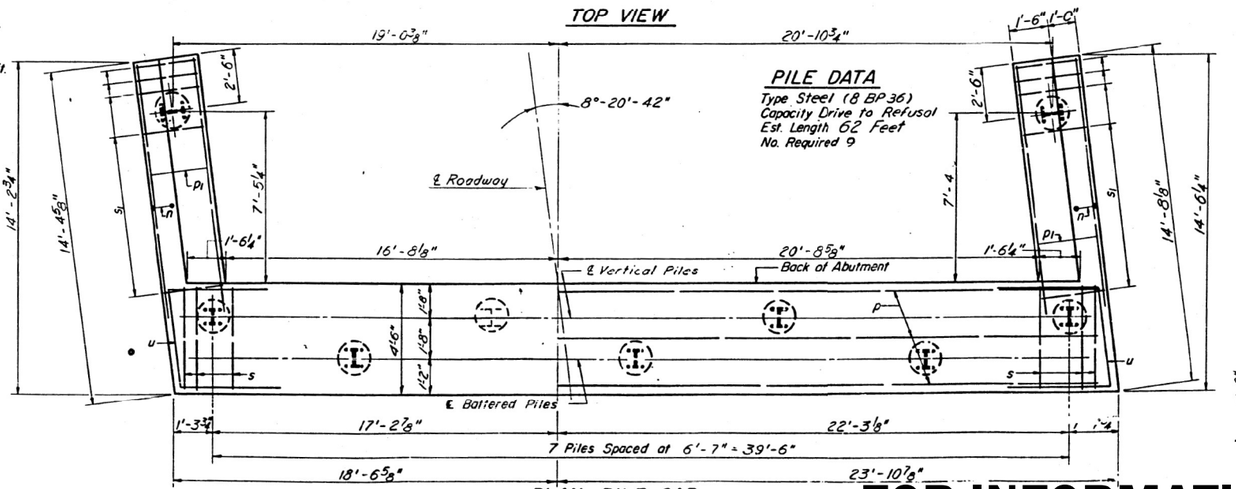
DESIGNED	J. M. Patel
CHECKED	
DRAWN	S.G. Ferchow G.M.R.
CHECKED	A.H.C.

June 29 1970
EXAMINED
PASSED
APPROVED
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

A-9-L (1°-14°) 2-1-66



TOP VIEW



PLAN-PILE CAP

SOUTH ABUTMENT E.B.L.
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	12	#5	20'-9"	
h1	9	#5	5'-0"	
h2	9	#5	5'-0"	
h3	4	#4	3'-6"	
h4	4	#4	7'-3"	
h5	28	#4	11'-3"	
h6	3	#6	40'-0"	
n	24	#5	7'-9"	
p	8	#7	42'-0"	
p1	12	#7	13'-0"	
s	45	#4	15'-5"	
s1	22	#4	9'-5"	
u	8	#6	9'-1"	
v	80	#4	5'-6"	
v1	16	#4	7'-3"	
v2	16	#4	6'-6"	
v3	16	#4	5'-7"	
v4	40	#4	3'-3"	
Class X Concrete			Cu. Yds.	423
Reinforcement Bars			Lbs.	3270
Steel Piles			Lin. Ft.	558

SOUTH ABUTMENT E.B.L.
F.A.I. RT. 24 — SEC. 44-4HB
JOHNSON COUNTY
STA. 186 + 77.50

FOR INFORMATION ONLY

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\026 0037-0038 Existing Plans 011.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:48:43 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

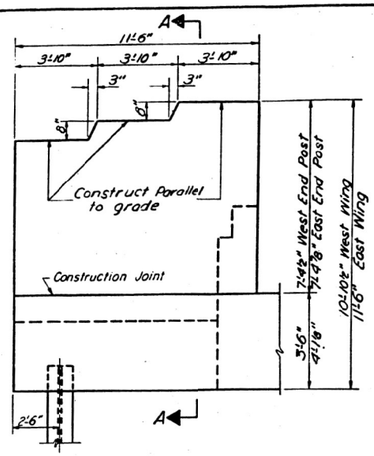
EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)
SCALE: | SHEET 26 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	156
		CONTRACT NO. 78912		
		ILLINOIS FED. AID PROJECT		

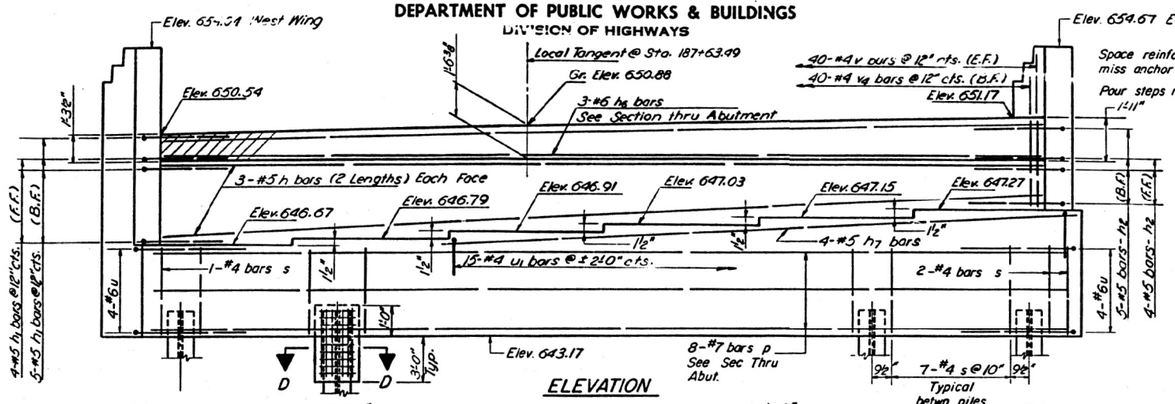
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	45

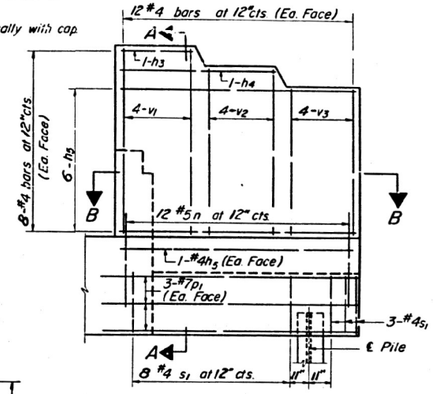
SHEET NO. 13
21 SHEETS



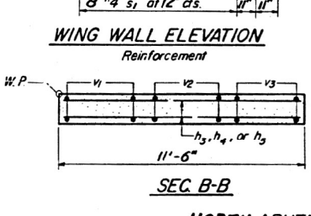
WING WALL ELEVATION



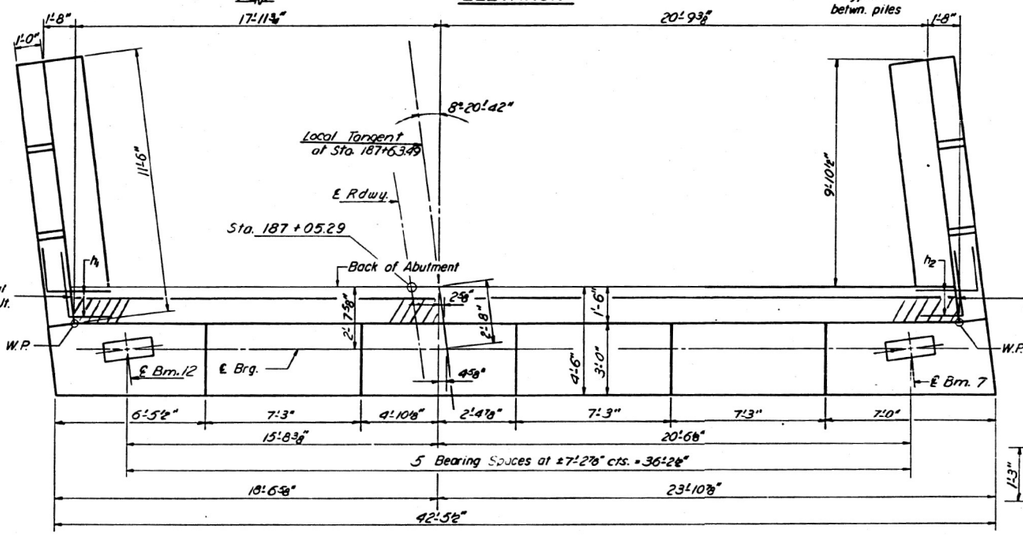
ELEVATION



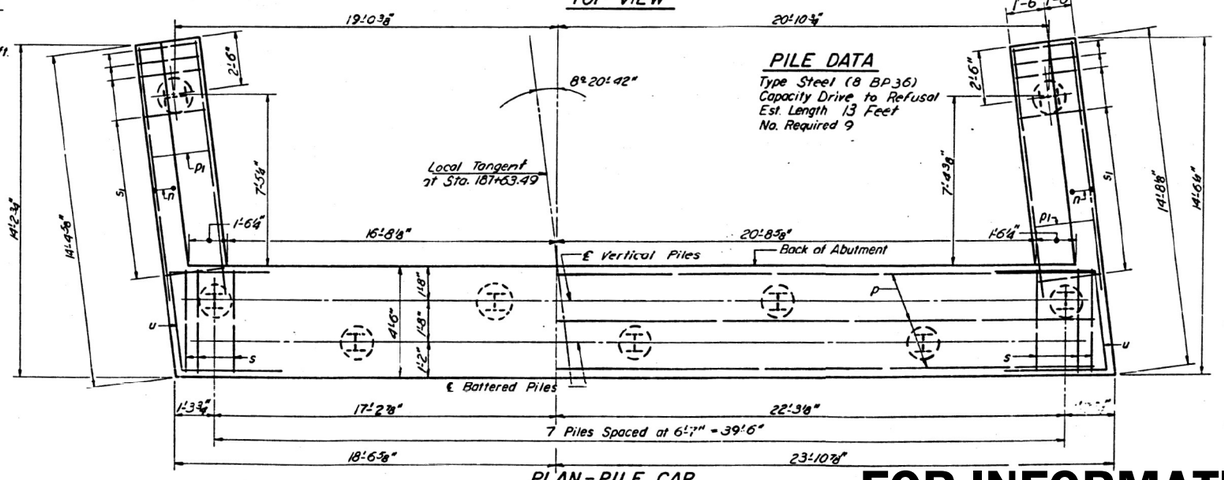
WING WALL ELEVATION
Reinforcement



SEC. B-B

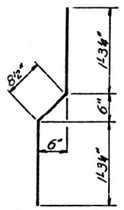


TOP VIEW

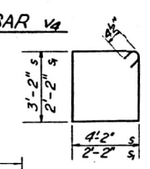


PLAN-PILE CAP

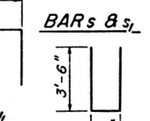
PILE DATA
Type Steel (8 BP 36)
Capacity Drive to Refusal
Est. Length 13 Feet
No. Required 9



BAR v4

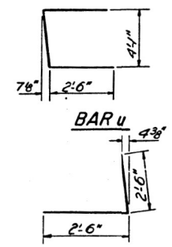


BARS & s1



BAR u1

BAR n



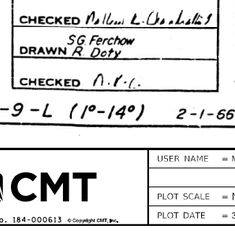
BAR u

BAR h2

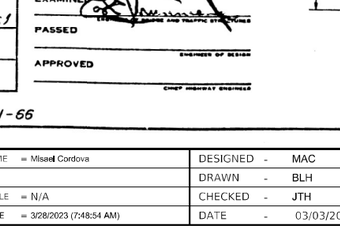
BAR h1

NORTH ABUTMENT W.B.L.
BILL OF MATERIAL

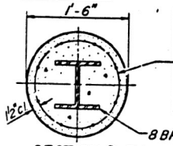
Bar	No.	Size	Length	Shape
h	12	#5	20'-9"	
h1	9	#5	5'-0"	
h2	9	#5	5'-0"	
h3	4	#4	3'-6"	
h4	4	#4	7'-3"	
h5	28	#4	11'-3"	
h6	3	#6	40'-0"	
h7	4	#5	28'-0"	
n	24	#5	7'-9"	
p	8	#7	42'-0"	
p1	12	#7	13'-0"	
s	45	#4	15'-5"	
s1	22	#4	9'-5"	
u	8	#6	9'-1"	
u1	15	#4	5'-3"	
v	80	#4	5'-6"	
v1	16	#4	7'-3"	
v2	16	#4	6'-6"	
v3	16	#4	5'-9"	
v4	40	#4	3'-3"	
Class X Concrete			Cu. Yds.	93.3
Reinforcement Bars			Lbs.	3440
Steel Piles			Lin. Ft.	117



SEC. A-A



SEC. THRU ABUT.



SECTION D-D
3'-0" Concrete Encasement

Welded wire fabric 6"x6" mesh #4 wire-weighing 58#/100 sq.ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit. (Typical)

DESIGNED	J. W. Retel
CHECKED	William L. Ohs, Jr.
DRAWN	S.G. Ferchow R. Doty
CHECKED	A. V. C.

EXAMINED — Jan 27 1970
PASSED
APPROVED
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

A-9-L (1°-14°) 2-1-66

FOR INFORMATION ONLY

NORTH ABUTMENT W.B.L.
F.A.I. RT. 24 — SEC. 44-4HB
JOHNSON COUNTY
STA. 187+63.49

FILE NAME: L:\DOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0037 & 0038\0027 0037-0038 Existing Plans 012.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC		REVISED -
	DRAWN - BLH		REVISED -
PLOT SCALE = N/A	CHECKED - JTH		REVISED -
PLOT DATE = 3/28/2023 (7:48:54 AM)	DATE - 03/03/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

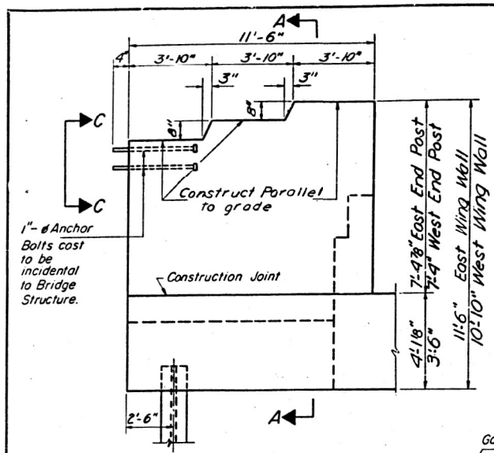
EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)
SCALE: | SHEET 27 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	157
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

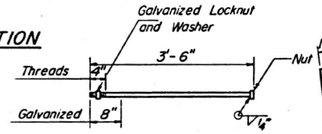
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 46
21 SHEETS

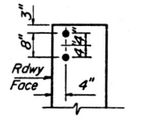


WING WALL ELEVATION

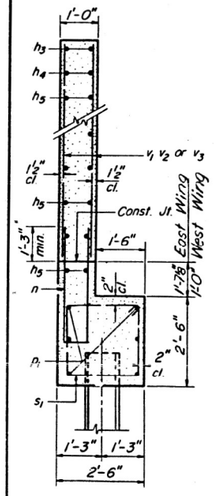


1" ø ANCHOR BOLT

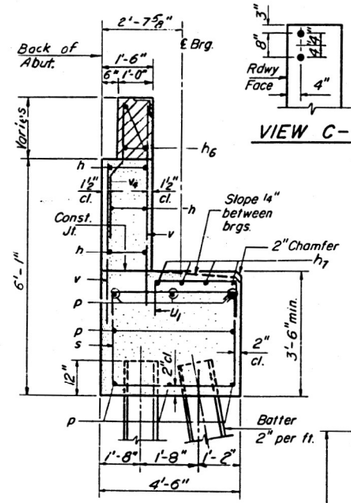
Note:
Hatched area shall be poured after superstructure is in place.



VIEW C-C

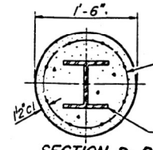


SEC. A-A



SEC. THRU ABUT.

Welded wire fabric 6"x6 mesh #4 wire - weighing 58#/100 sq.ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit. (Typical)

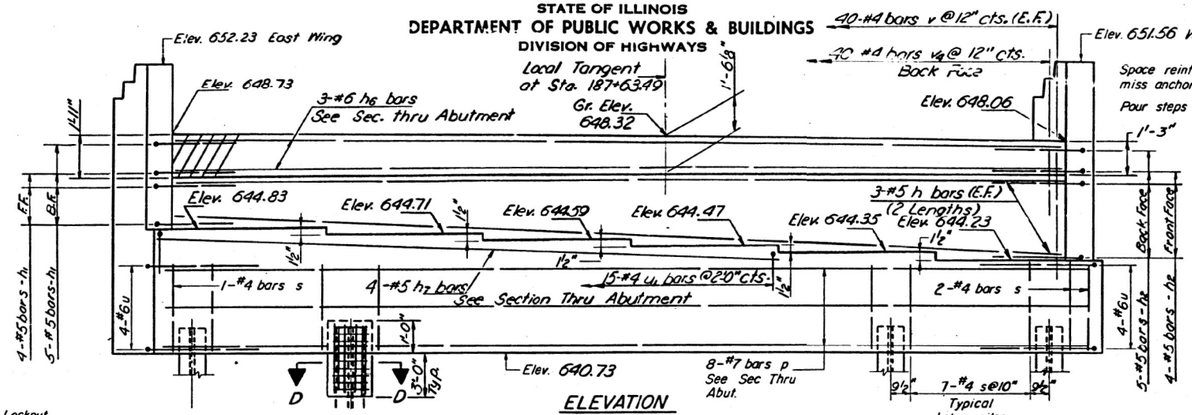


SECTION D-D
3'-0" Concrete Encasement

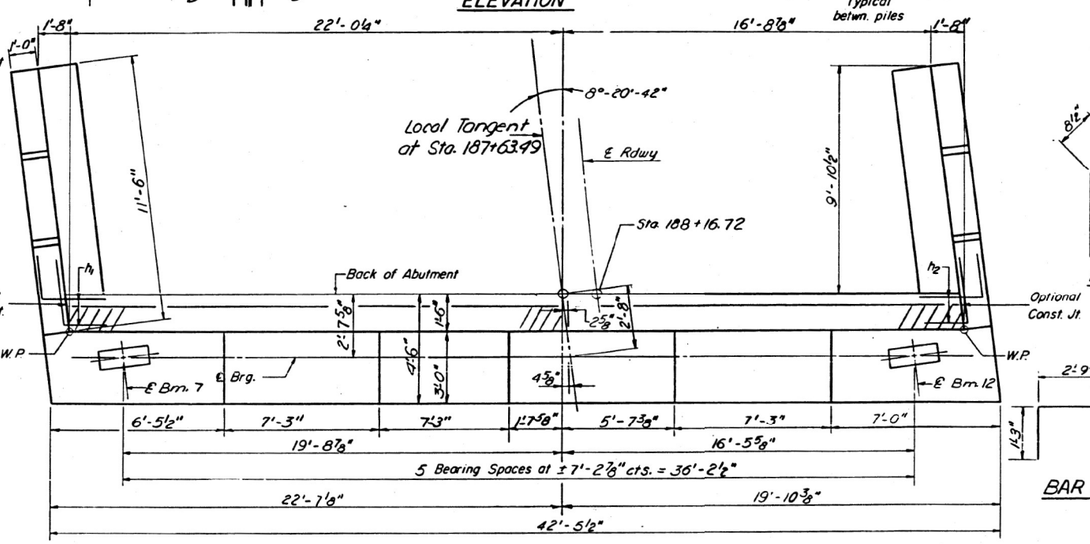
DESIGNED	J. M. Putzi
CHECKED	
DRAWN	SG Ferchow
CHECKED	

EXAMINED July 29 1970
PASSED
APPROVED
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

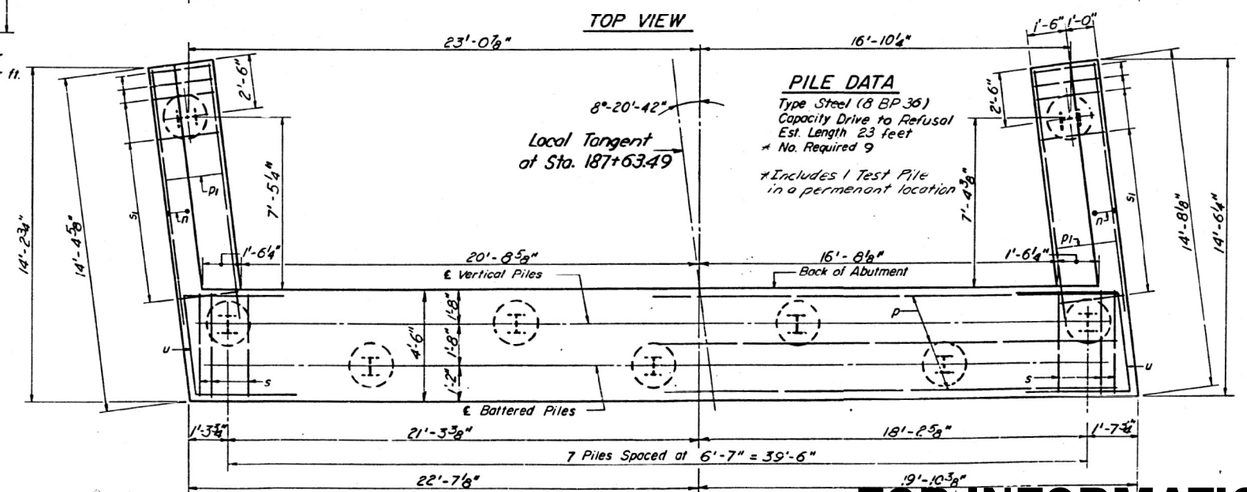
A-9-L (1°-14°; 2-1-66



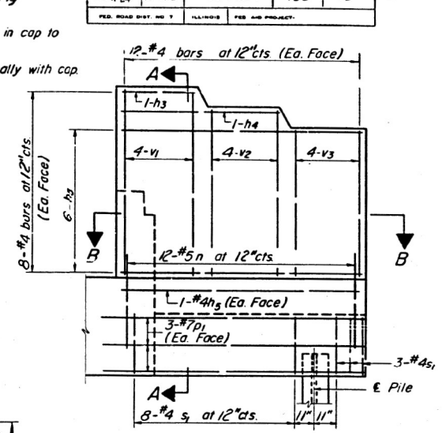
ELEVATION



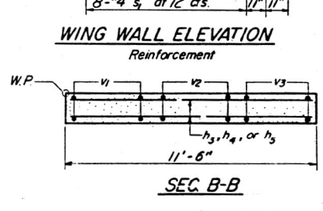
TOP VIEW



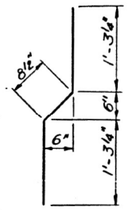
PLAN-PILE CAP



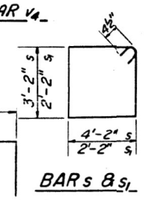
WING WALL ELEVATION
Reinforcement



SEC. B-B

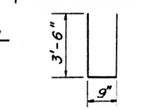


BAR v4

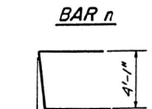


BAR u1

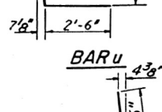
BARS s & s1



BAR n



BAR u



BAR h2

BAR h7

SOUTH ABUTMENT W.B.L.
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	12	#5	20'-9"	
h1	9	#5	5'-0"	
h2	9	#5	5'-0"	
h3	4	#4	3'-6"	
h4	4	#4	7'-3"	
h5	28	#4	11'-3"	
h6	3	#6	40'-0"	
h7	4	#5	28'-0"	
n	24	#5	7'-9"	
p	8	#7	42'-0"	
p1	12	#7	13'-0"	
s	45	#4	15'-5"	
s1	22	#4	9'-5"	
u	8	#6	9'-1"	
u1	15	#4	5'-3"	
v	80	#4	5'-6"	
v1	16	#4	7'-3"	
v2	16	#4	6'-6"	
v3	16	#4	5'-9"	
v4	40	#4	3'-3"	
Class X Concrete		Cu. Yds.	43.3	
Reinforcement Bars		Lbs.	3440	
Steel Piles		Lin. Ft.	184	
Test Piles Steel (8BP36)		Ea.	1	

SOUTH ABUTMENT W.B.L.
F.A.I. RT. 24 — SEC. 44-4HB.
JOHNSON COUNTY
STA. 187+63.49

FOR INFORMATION ONLY

FILE NAME: L:\IDOT\1906610\WO 18\Drawl\Structures\CADD Sheets\SN 044-0037 & 0038\028 0037-0038 Existing Plans 013.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:49:04 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 28 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	158
		CONTRACT NO. 78912		
		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 24	44-4HB	Johnson	132	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 15
21 SHEETS

Boring No. 1S — Station 187+06 WBL — Offset 24'RT Centerline
Surface Water El. NONE; Groundwater El. at Completion NONE; After 24 Hours NONE

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 642.1			
MEDIUM MOIST BROWN SILTY CLAY LOAM A-4(8)			
639.6			
SOFT MOIST BROWN MOTTLED GREY SILTY CLAY A-6(10)	17	0.4S	30
636.6			
STIFF MOIST BROWN MOTTLED BLACK SILTY CLAY LOAM A-6(9)	14	1.0B	24
	15	1.3B	23
631.6			
HARD BROWN SANDSTONE	100 BLOWS		6"
630.2	100 BLOWS		1"
BOTTOM OF HOLE = 11.9 FEET			

Boring No. 1S-A — Station 187+06 WBL — Offset 36' LT CENTERLINE
Surface Water El. NONE; Groundwater El. at Completion NONE; After 24 Hours NONE

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 643.6			
AUGERED NO TESTS			
633.6			
BOTTOM OF HOLE = 10.0 FEET			
REFUSAL OF AUGERS AT THIS DEPTH (HARD BROWN SANDSTONE)			

Boring No. 2S — Station 187+40 WBL — Offset 7' LT CENTERLINE
Surface Water El. NONE; Groundwater El. at Completion NONE; After 24 Hours NONE

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 641.6			
MEDIUM VERY MOIST BROWN SILTY CLAY LOAM A-4(8)			
638.6			
VERY SOFT VERY MOIST BROWN SILTY CLAY A-6(9)	4	0.3B	31
636.1			
STIFF MOIST BROWN MOTTLED GREY SILTY CLAY A-6(9)	11	1.0B	24
632.6	13	1.5B	23
HARD DAMP BROWN BROKEN SANDSTONE			
631.1			
VERY STIFF MOIST BROWN CLAY A7-6(20)	23	2.9S	22
	21	3.3S	26
626.1			
HARD GREY MOTTLED BROWN CLAY SHALE	92	4.8S	10
	100	-	-
	100 BLOWS		3"
619.1			

Elevation	N	Qu t/s.f.	w (%)
SEE PREVIOUS COLUMN 619.1			
	100 BLOWS		5"
HARD BROWN SANDSTONE			
616.2	100 BLOWS		4"
BOTTOM OF HOLE = 25.4 FEET			

Boring No. 3S — Station 187+85 WBL — Offset 7' LT CENTERLINE
Surface Water El. NONE; Groundwater El. at Completion NONE; After 24 Hours NONE

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 637.1			
MEDIUM MOIST BROWN SILTY CLAY LOAM A-4(8)			
634.6			
VERY STIFF MOIST BROWN MOTTLED GREY SILTY CLAY A-6(11-12)	16	2.1S	27
631.6			
VERY STIFF MOIST BROWN MOTTLED GREY SILTY CLAY LOAM A-6(9)	31	2.8S	15
629.1			
VERY STIFF MOIST BROWN MOTTLED GREY CLAY A7-6(20)	31	5.4S	19
	42	5.3S	17
624.1			
HARD DAMP BROWN MOTTLED GREY CLAY SHALE	100 BLOWS		8"
621.6	100 BLOWS		3"
HARD BROWN SANDSTONE			
	100 BLOWS		5"
617.0	100 BLOWS		1"
BOTTOM OF HOLE = 20.1 FEET			

Boring No. 4S — Station 188+19 WBL — Offset 4'RT CENTERLINE
Surface Water El. NONE; Groundwater El. at Completion NONE; After 24 Hours NONE

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 635.0			
MEDIUM MOIST BROWN SILTY CLAY LOAM A-4(8)			
632.5			
STIFF MOIST BROWN SILTY CLAY A-6(9)	12	1.0B	23
	16	1.1S	25
627.5			
VERY STIFF MOIST BROWN CLAY A7-6(20)	25	3.3S	20
	23	4.5S	26
622.5			
VERY STIFF DAMP BROWN CLAY SHALE	100	4.3S	13
620.5	100 BLOWS		5"
HARD BROWN SANDSTONE			
	100 BLOWS		5"
615.0	100 BLOWS		5"
HARD BROWN CLAY SHALE			
612.7	100 BLOWS		3"
BOTTOM OF HOLE = 22.3 FEET			

N-Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30"

Qu-Unconfined Compressive Strength-t/sf

w-Water Content-percentage of oven dry weight-%

Type failure:
B-Bulge Failure
S-Shear Failure
E-Estimated Value
P-Penetrometer

DESIGNED	J. M. Patel
CHECKED	Nathan L. Chandler
DRAWN	R. Doty
CHECKED	A.M.L.

EXAMINED July 29 1970
PASSED
APPROVED
END HEAD OF DESIGN
CHIEF HIGHWAY ENGINEER

FOR INFORMATION ONLY

BORING DATA
F.A.I. RTE. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 187+63.49
(WEST BD. LANES)

FILE NAME: L:\DOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0037 & 0038\0029 0037-0038 Existing Plans 014.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 044–0037 (E.B.) & 0038 (W.B.)
	DRAWN - BLH	REVISED -		
PLOT SCALE = N/A	CHECKED - JTH	REVISED -		SCALE: SHEET 29 OF 30 SHEETS STA. TO STA.
PLOT DATE = 3/28/2023 (7:49:14 AM)	DATE - 03/03/2023	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	159
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 24	44-4HB	Johnson	132	52
FED ROAD DIST NO 7	ILLINOIS	FED AID PROJECT		

SHEET NO. 20
21 SHEETS

Boring No. 5-S | **Station 186+20 EBL** | **Offset CENTERLINE**

Surface Water El. NONE
Groundwater El. at Completion 614.3
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 618.8	0		
MEDIUM VERY MOIST BROWN SILTY CLAY LOAM A-4(8)			
	2	0.58	26
613.3	-5		
MEDIUM VERY MOIST BROWN CLAY LOAM A-4(8)	4	0.68	18
610.8			
STIFF VERY MOIST BROWN MOTTLED GREY CLAY LOAM A-4(5)	27	1.45	11
608.3	-10		
VERY STIFF MOIST BROWN MOTTLED GREY CLAY A-6(9) 607.3	21	2.55	11
VERY STIFF MOIST BROWN MOTTLED GREY CLAY SHALE 606.3	100 BLOWS 1"		
HARD BROWN SANDSTONE	99% CORED RECOVERY		
601.5	-15		
BOTTOM OF HOLE = 17.3 FEET			
DURING DRILLING OPERATIONS IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 10.5 FEET	-20		

Boring No. 6S | **Station 186+54 EBL** | **Offset 7' RT CENTERLINE**

Surface Water El. NONE
Groundwater El. at Completion 612.5
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 618.0	0		
MEDIUM VERY MOIST BROWN SILTY CLAY LOAM A-4(8)			
	2	0.58	30
	-5		
	6	0.55	23
610.0			
STIFF MOIST BROWN MOTTLED GREY CLAY LOAM A-4(5)	16	1.85	16
608.0	-10		
HARD BROWN SANDSTONE 607.9	100 BLOWS 1"		
BOTTOM OF HOLE = 10.1 FEET			
DURING DRILLING OPERATIONS IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 7.5 FEET	-15		
	-20		

Boring No. 7S | **Station 187+01 EBL** | **Offset 7' LT CENTERLINE**

Surface Water El. NONE
Groundwater El. at Completion 610.9
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 612.9	0		
AUGERED CLAY LOAM AND BROKEN SANDSTONE			
608.1			
HARD BROWN SANDSTONE 608.0	-5	100 BLOWS 1"	
BOTTOM OF HOLE = 4.9 FEET			
DURING DRILLING OPERATIONS IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 4.5 FEET	-10		
	-15		
	-20		

Boring No. 8S | **Station 187+30 EBL** | **Offset 7'RT CENTERLINE**

Surface Water El. NONE
Groundwater El. at Completion 611.1
After — Hours —

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 615.7	0		
MEDIUM VERY MOIST BROWN SILTY CLAY LOAM TO CLAY LOAM A-4(8)			
	6	0.58	26
610.7	-5		
	100 BLOWS 5"		
HARD BROWN SANDSTONE	99% CORED RECOVERY		
604.6	-10		
BOTTOM OF HOLE = 11.1 FEET			
DURING DRILLING OPERATIONS IT APPEARED THAT FREE WATER WAS ENCOUNTERED AT 5.5 FEET	-15		
	-20		

(1)-Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30"

Qu-Unconfined Compressive Strength-t/sf.

w-Water Content-percentage of oven dry weight-%

Type failure:
B-Bulge Failure
S-Shear Failure
E-Estimated Value.
P-Penetrometer

DESIGNED	J. M. Patel
CHECKED	
DRAWN	R. Doty
CHECKED	

EXAMINED July 29 1970
PASSED
APPROVED
CHIEF ENGINEER AND MANAGER OF DIVISION

FOR INFORMATION ONLY

BORING DATA
F.A.I. RTE. 24 SEC. 44-4HB
JOHNSON COUNTY
STA. 186+77.50
(EAST BD. LANES)

FILE NAME: L:\DOT\1906610\WO 18\Drawn\Structures\CADD Sheets\SN 044-0037 & 0038\030 0037-0038 Existing Plans 015.dgn

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USER NAME = Misael Cordova	DESIGNED - MAC	REVISED -	
	DRAWN - BLH	REVISED -	
PLOT SCALE = N/A	CHECKED - JTH	REVISED -	
PLOT DATE = 3/28/2023 (7:49:23 AM)	DATE - 03/03/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
SN 044-0037 (E.B.) & 0038 (W.B.)

SCALE: | SHEET 30 OF 30 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0044		JOHNSON	160	160
		CONTRACT NO. 78912		
	ILLINOIS	FED. AID PROJECT		