

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	1

P-95-043-20
D-95-027-22

ILLINOIS CONTRACT NO. 70B78

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEETS 3 TO 6

DESIGN DESIGNATION: INTERSTATE

CURRENT TRAFFIC DATA
SPEED LIMIT: 70 MPH

ADT:

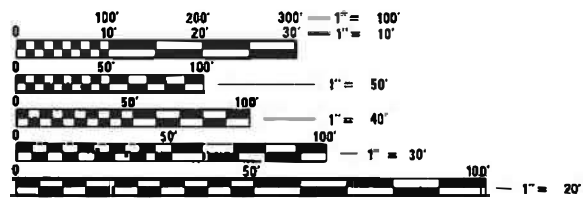
I-74 (EB) = I-74 (WB) =
2021: 17,500 2021: 17,200
2041: 19,600 2041: 19,300

IL-130 SPUR TO I-74 (WB) =
2021: 4,400
2041: 5,600

I-74 (WB) TO IL-130 SPUR =
2021: 2,400
2041: 2,950

I-74 (EB) TO IL-130 SPUR
2021: 4,900
2041: 6,500

IL-130 SPUR TO I-74 (EB) =
2021: 2,150
2041: 2,600



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

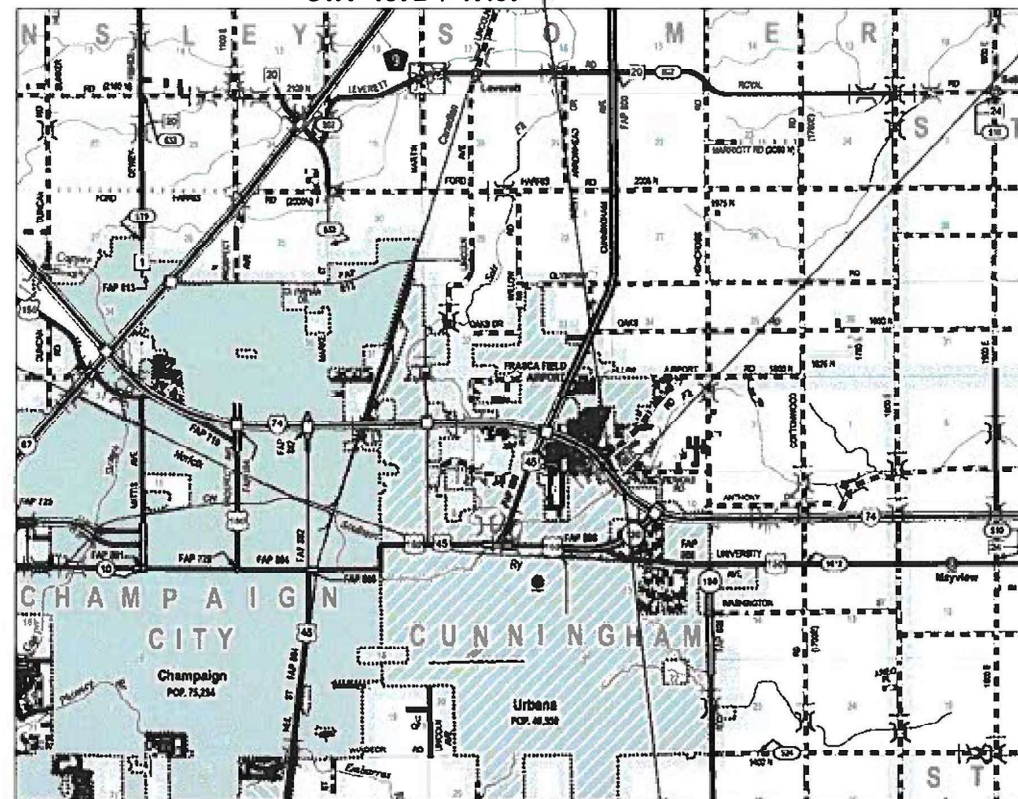
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811 CUNNINGHAM TOWNSHIP

PROJECT ENGINEER - RYAN T. CARROLL, P.E.
(217) 465-4181

CONTRACT NO. 70B78

F.A.I. ROUTE 74 (I-74)
SECTION (10-6B)BR-1
PROJECT NHPP-RRGH(799)
BRIDGE DECK OVERLAY
CHAMPAIGN COUNTY

C-95-069-20
OVER SALINE BRANCH 1 MILE OF US 45
BEGIN IMPROVEMENT
STA 1372 + 47.67



STRUCTURE
S.N. 010-0025
S.N. 010-0026
STA. 1373 + 30.00

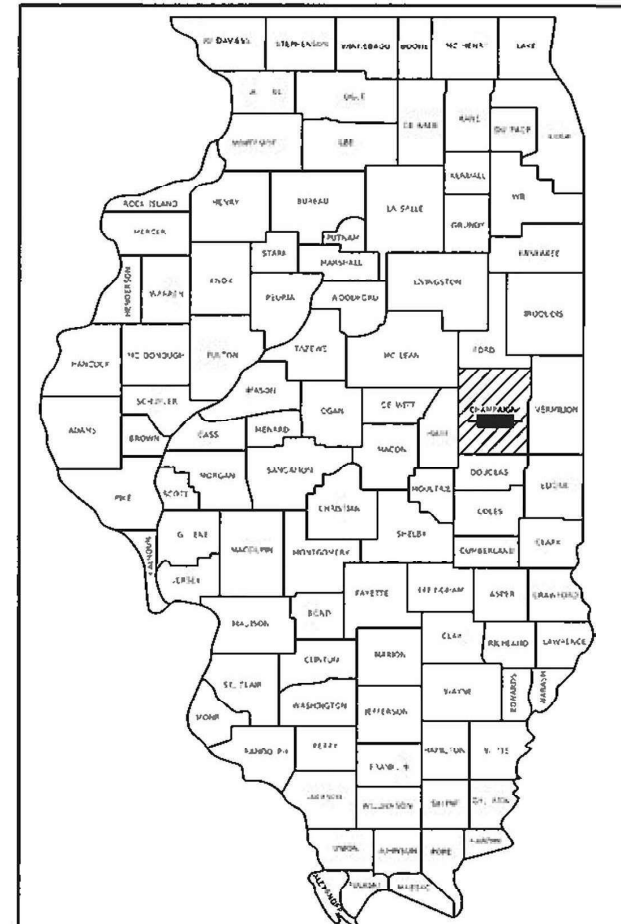
END IMPROVEMENT
STA 1374 + 12.33

GROSS LENGTH = 164.66 FT. = 0.031 MILE
NET LENGTH = 164.66 FT. = 0.031 MILE

LOCATION MAP



Prairie Engineers
ENGINEERS SURVEYORS SCIENTISTS
www.prairieengineers.com
professional design firm no. 184-005365
© Copyright Prairie Engineers, P.C. 2022



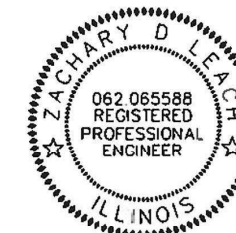
LOCATION OF SECTION INDICATED THIS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 3/24 2022
Kensica Bennett REGIONAL ENGINEER

May 13, 2022 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2022 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION



[Signature] 3/22/2022
Signature Date

Zachary D. Leach
Printed or Typed Name License Number 062-065588

My license renewal date is November 30, 2023

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS
3 - 6	SUMMARY OF QUANTITIES
7 - 8	TYPICAL SECTIONS
9 - 10	SCHEDULE OF QUANTITIES
11	ALIGNMENT, TIES, AND BENCHMARKS
12 - 13	PLAN SHEETS
14 - 21	STAGE CONSTRUCTION PLANS
22	PAVEMENT MARKING PLANS
23 - 24	REMOVAL PLANS
25 - 49	STRUCTURE 010-0025 & 010-0026 SHEETS
50	MISCELLANEOUS DETAILS
51	DISTRICT 5 DETAIL NO. 7800BBBB
52	DISTRICT 5 DETAIL NO. X7200201

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
642001-03	SHOULDER RUMBLE STRIPS, 16 IN.
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

COMMITMENTS

COMMITMENTS: (NONE)

APPLICATION RATES:

THE FOLLOWING APPLICATION RATES HAVE BEEN ASSUMED
IN CALCULATING PLAN QUANTITIES.

HOT-MIX ASPHALT	= 112 LBS/SQ YD/IN
BITUMINOUS MATERIALS (TACK COAT)	= 0.05 LBS/SQ FT

HMA RESURFACING

STA. 1371+80.17 TO STA. 1372+10.17 (I-74 EB)
STA. 1371+97.42 TO STA. 1372+27.42 (I-74 WB)
STA. 1374+21.18 TO STA. 1374+51.18 (I-74 EB)
STA. 1374+38.41 TO STA. 1374+68.41 (I-74 WB)

PAVING OMISSIONS

S.N. 010-0025 (EB) STA. 1372+10.17 TO STA. 1374+21.18
S.N. 010-0026 (WB) STA. 1372+27.42 TO STA. 1374+38.41

GENERAL NOTES

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

G.N.-406H
MIXTURE REQUIREMENTS: THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT

LOCATION	I-74
MIXTURE USE	MAINLINE & STAGED SHOULDER
AC/PG	SBS PG 70-22
DESIGN AIR VOIDS	4.0% @ NDES=90
MIX COMP (GRADATION)	IL 9.5
FRICTION AGGREGATE	MIX E
MIXTURE WEIGHT	112
QUALITY MANAGEMENT PROGRAM	QC/QA
SUBLOT SIZE	N.A.
MATERIAL TRANSFER DEVICE (REQUIRED?)	NO

G.N.-703A
SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING: COLD MILLING AND/OR PLACING BITUMINOUS MATERIALS (TACK COAT), LEVELING BINDER (MACHINE METHOD), BINDER AND SURFACE COURSES. SHORT TERM PAVEMENT MARKING PLACED ON THE SURFACE SHALL COINCIDE WITH THE FINAL PAVEMENT STRIPING. SHORT TERM PAVEMENT MARKING PLACED PRIOR TO THE SURFACE SHALL COINCIDE WITH THE EXISTING PAVEMENT MARKINGS. USE 4 FEET PER 40 FEET (OR 10% PER STATION).

G.N.-781
THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS.

MODEL: Plan1
FILE NAME: \\sbs301b1011901_PFB_193-025_D5_Varibus_Phase_HilWork_Order_2\Drawings\CADD_Sheets\0570B785-18-18-2022.dgn

Prairie Engineers, P.C. 404 N. Main Street Columbia, IL 62238 (217) 665-0403 www.prairieengineers.com <small>professional design firm no. 1544-005965 Copyright Public Engineers of Illinois, P.C. 2022</small>	USER NAME = dbrennan	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 2,000' / in.	CHECKED -	REVISED -			74	(10-6B)BR-1	CHAMPAIGN	52	2
PLOT DATE = 3/22/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 70B78		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				I-74 - CHAMPAIGN COUNTY 90% FED. 10% STATE - URBAN	
				BRIDGE	
				0059	
				S.N. 010-0025 & 0026	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1163	1163	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	513	513	
40604174	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N90	TON	253	253	
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	2032	2032	
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1	1	
50102400	CONCRETE REMOVAL	CU YD	25.7	25.7	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	29.3	29.3	
50300300	PROTECTIVE COAT	SQ YD	1868	1868	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	18070	18070	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	9330	9330	
50800515	BAR SPLICERS	EACH	88	88	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	348	348	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	48	48	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	136	136	

*DENOTES SPECIALTY ITEM

MODEL: R001
FILE NAME: I:\Projects\2019\10119011\FB_103-025_DS_Various Phase_1\Drawings\CAAD_Sheets\057082\B-11-500.dgn

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 604-4483
www.prairieengineers.com
Professional Design Firm No. 104-005965
© Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/24/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
SUMMARY OF QUANTITIES**

SCALE:	SHEET 1 OF 4 SHEETS	STA. TO STA.
--------	---------------------	--------------

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	3
			CONTRACT NO. 70B78	
ILLINOIS FED. AID PROJECT				

CONSTR. CODE
 I-74 - CHAMPAIGN COUNTY
 90% FED. 10% STATE - URBAN
 BRIDGE
 0059
 S.N. 010-0025 & 0026

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	285	285
63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1	EACH	1	1
63302700	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 6	EACH	4	4
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	2386	2386
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	7	7
67100100	MOBILIZATION	L SUM	1	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	19	19
70107007	PAVEMENT MARKING BLACKOUT TAPE, 7"	FOOT	1128	1128
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	184	184
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	61	61
70300221	TEMPORARY PAVEMENT MARKING - LINE 4" - PAINT	FOOT	12600	12600
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1050	1050

*DENOTES SPECIALTY ITEM

MODEL: BREN
 FILE NAME: \\chris2019\101.1901.PFB_193-025_DS_Various Phase_1\1\Work_Order_2\Drawings\CAD\Sheet\05708278-11-500.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 604-4483
 www.prairieengineers.com
 Professional Design Firm No. 104-005965
 © Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/24/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	4
			CONTRACT NO. 70B78	
ILLINOIS FED. AID PROJECT				

CONSTR. CODE
 I-74 - CHAMPAIGN COUNTY
 90% FED. 10% STATE - URBAN
 BRIDGE
 0059
 S.N. 010-0025 & 0026

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	950	950
* 78008330	POLYUREA PAVEMENT MARKING TYPE II - LINE 6"	FOOT	3320	3320
* 78011035	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	2377	2377
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	8	8
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	81	81
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8
78300202	PAVEMENT MARKING REMOVAL -- WATER BLASTING	SQ FT	5818	5818
X0325748	ACRYLIC COATING	SQ YD	95	95
X0325749	FIBER WRAP	SQ FT	852	852
X0326208	ALTERNATE ROUTE SIGNING	L SUM	1	1
X0326331	CLEANING AND PAINTING BEARINGS	EACH	32	32
* X0327640	REAL-TIME TRAFFIC CONTROL CENTRAL BASE UNIT	CAL MO	7	7
* X0328005	REAL-TIME TRAFFIC MONITORING SENSOR UNIT	CAL MO	112	112
* X0328006	REAL-TIME TRAFFIC CONTROL WARNING SIGN	CAL MO	56	56

*DENOTES SPECIALTY ITEM

MODEL: BREN
 FILE NAME: I:\Users\Brennan\OneDrive\Work\Drawings\CAAD_Sheets\0570878-RT-500.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 604-4483
 www.prairieengineers.com
 Professional Design Firm No. 104-005965
 © Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/24/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
SUMMARY OF QUANTITIES
 SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70B78	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				I-74 - CHAMPAIGN COUNTY 90% FED. 10% STATE - URBAN	
				BRIDGE	
				0059	
				S.N. 010-0025 & 0026	
X0931400	INLET BOXES TO BE ADJUSTED (SPECIAL)	EACH	4	4	
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	1141	1141	
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1	
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	44	44	
Z0003802	REMOVAL OF EXISTING BEARINGS	EACH	20	20	
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SQ YD	1783	1783	
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1783	1783	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	723	723	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE 1)	SQ YD	47	47	
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1676	1676	
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	319	319	
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	20	20	
Ø Z0076600	TRAINEES	HOUR	1000	1000	
Ø Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1000	1000	

*DENOTES SPECIALTY ITEM Ø 0042

MODEL: Bridge FILE NAME: I:\Michu\2019\10119011\FB_103-025_DS_Various Phase 1\Work Order 2\Drawings\CADD_Sheets\057082\FB-PT-500.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 604-4483
 www.prairieengineers.com
 Professional Design Firm No. 104-005065
 © Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/24/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
SUMMARY OF QUANTITIES

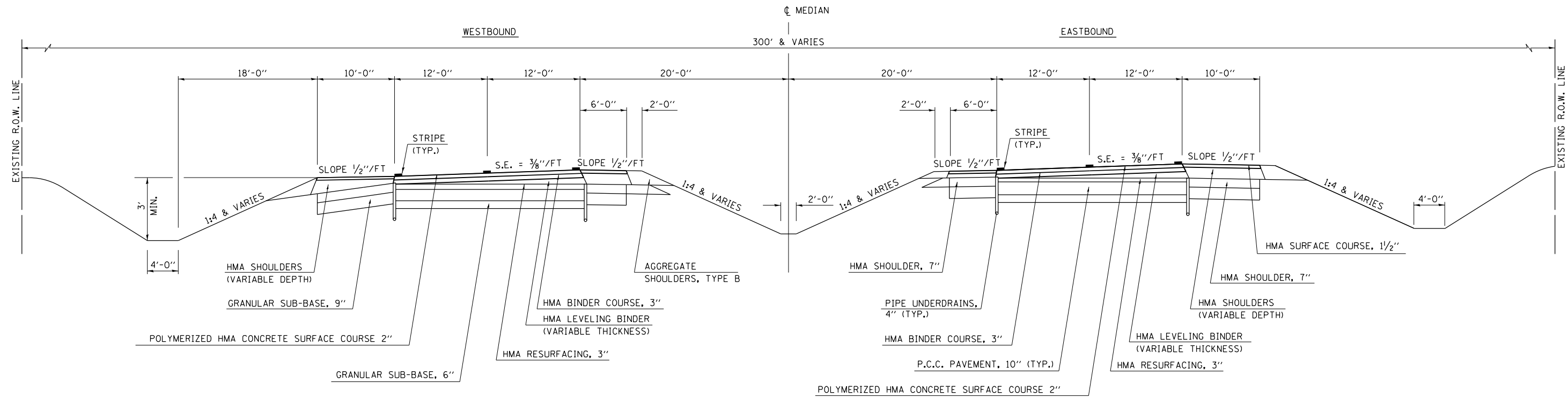
SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70B78	

(B) EXISTING TYPICAL CROSS SECTION - I-74

STATION (A) 1374+00.00 TO STATION 1377+98.50

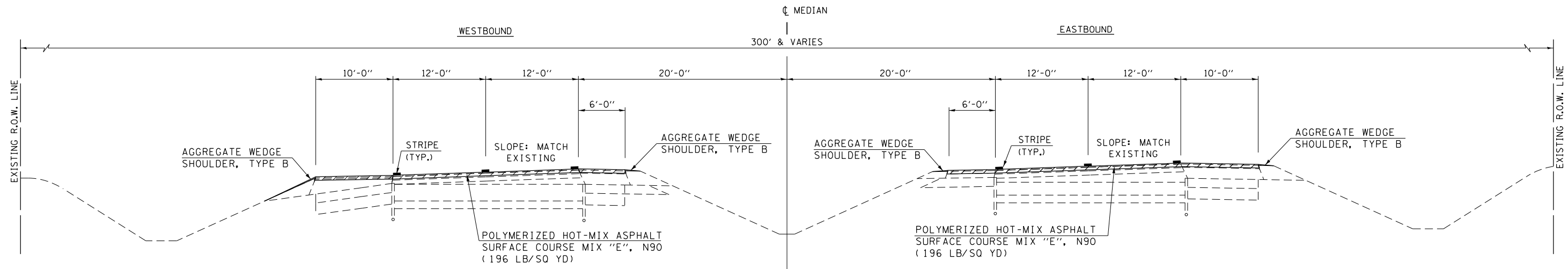
STRUCTURE OMISSIONS:
S. N. 010-0025/26
EB STA. 1372+10.17 TO STA. 1374+21.18
WB STA. 1372+27.42 TO STA. 1374+38.41



(2) PROPOSED TYPICAL CROSS SECTION - I-74

STATION 1374+21.18 TO STATION 1374+38.41 (WB)
STATION 1374+51.18 (EB) TO STATION 1374+68.41 (WB)

STRUCTURE OMISSIONS:
S. N. 010-0025/26
EB STA. 1372+10.17 TO STA. 1374+21.18
WB STA. 1372+27.42 TO STA. 1374+38.41



W. B. SHOULDER MILLING & RESURFACING:
1374+34.28 TO 1377+98.50 (OUTSIDE)
1374+24.18 TO 1376+58.50 (INSIDE)

E. B. SHOULDER MILLING & RESURFACING:
1374+09.64 TO 1377+85.00 (OUTSIDE)
1374+21.18 TO 1376+45.00 (INSIDE)

MODEL: Twp Page 2
FILE NAME: \\sbs301b1011901_PFB_193-025_D5_Voribus_Phase_HilWork_Order_2\Drawings\CADD_Sheets\0570B785-typical.dwg

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 605-0403
www.prairieengineers.com
Professional Design Firm No. 154-4005965
© Copyright Prairie Engineers of Illinois, P.C., 2022

USER NAME = dbrennan
PLOT SCALE = 40.0000 1/ in.
PLOT DATE = 3/22/2022

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
TYPICAL CROSS SECTIONS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	8
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

SCHEDULES OF QUANTITIES

PERMANENT PAVEMENT MARKING								
STATION	STATION	NOTES	PAVEMENT MARKING BLACKOUT TAPE, 7"	POLYUREA PAVEMENT MARKING TYPE II LINE 6"	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	PAVEMENT MARKING REMOVAL - WATER BLASTING	GROOVING FOR RECESSED PAVEMENT MARKING 7"
			70107007 FOOT	78008330 FOOT	78100100 EACH	78300200 EACH	78300202 SQ FT	78011035 FOOT
I 74								
I74 EB (SN 010-0025)								
1353+60.0	TO 1371+80.2	SKIP DASH	455.1					
1353+60.0	TO 1371+80.2	RRPM	22.8					
1368+50.0	TO 1377+85.0	SOLID WHITE		937.2				726.4
1368+60.0	TO 1377+75.0	OUTSIDE EDGE LINE					458.6	
1369+90.0	TO 1376+45.0	SOLID YELLOW		655.5				444.6
1370+00.0	TO 1376+35.0	INSIDE EDGE LINE					317.7	
1371+80.2	TO 1374+51.2	SKIP DASH WHITE		70.0	4.0	4.0	33.9	20.0
1371+80.3	TO 1374+51.3	SKIP DASH	81.0					
1371+80.4	TO 1374+51.4	RRPM	4.0					
I74 WB (SN 010-0026)								
1368+63.5	TO 1371+97.4	SKIP DASH	83.5					
1368+63.5	TO 1371+97.4	RRPM	4.2					
1368+63.5	TO 1377+98.5	SOLID WHITE		932.7				722.1
1368+73.5	TO 1377+88.5	OUTSIDE EDGE LINE					456.4	
1370+03.5	TO 1376+58.5	SOLID YELLOW		654.5				443.7
1370+13.5	TO 1376+48.5	INSIDE EDGE LINE					317.3	
1371+97.4	TO 1374+68.4	SKIP DASH WHITE		70.0	4.0	4.0	33.9	20.0
1374+68.4	TO 1392+88.5	SKIP DASH	455.0					
1374+68.5	TO 1392+88.6	RRPM	22.8					
TOTALS:			1,128.4	3,319.9	8.0	8.0	1,617.8	2,376.8
ROUND TO:			1,128	3,320	8	8	1,618	2,377

TEMPORARY PAVEMENT MARKING				
STATION	STATION	NOTES	TEMPORARY PAVEMENT MARKING - LINE 4" - PAINT	PAVEMENT MARKING REMOVAL - WATER BLASTING
			70300221 FOOT	78300202 SQ FT
I 74 STAGE I				
I74 EB (SN 010-0025)				
1353+60.0	TO 1368+60.0	SOLID YELLOW	1,500.0	500.0
1368+60.0	TO 1378+75.0	SOLID YELLOW	1,015.0	338.3
1368+60.0	TO 1377+75.0	SOLID WHITE	915.0	305.0
I74 WB (SN 010-0026)				
1367+73.5	TO 1377+88.5	SOLID YELLOW	1,015.0	338.3
1368+73.5	TO 1377+88.5	SOLID WHITE	915.0	305.0
1377+88.5	TO 1392+88.5	SOLID YELLOW	1,500.0	500.0
I 74 STAGE II				
I74 EB (SN 010-0025)				
1355+00.0	TO 1370+00.0	SOLID WHITE	1,500.0	500.0
1370+00.0	TO 1377+35.0	SOLID WHITE	735.0	245.0
1370+00.0	TO 1376+35.0	SOLID YELLOW	635.0	211.7
I74 WB (SN 010-0026)				
1369+13.5	TO 1376+48.5	SOLID WHITE	735.0	245.0
1370+13.5	TO 1376+48.5	SOLID YELLOW	635.0	211.7
1376+48.5	TO 1391+48.5	SOLID WHITE	1,500.0	500.0
TOTALS:			12,600.0	4,200.0
ROUND TO:			12,600	4,200

SHORT TERM PAVEMENT MARKING			
STATION	STATION	SHORT TERM PAVEMENT MARKING 70300100	SHORT TERM PAVEMENT MARKING REMOVAL 70300150
		FOOT	SQ FT
I74 EB (SN 010-0025)			
1368+50.0	TO 1377+85.0	36.0	12.0
1369+90.0	TO 1376+45.0	28.0	9.3
1371+80.2	TO 1374+51.2	28.0	9.3
I74 WB (SN 010-0026)			
1367+63.5	TO 1377+98.5	36.0	12.0
1370+03.5	TO 1376+58.5	28.0	9.3
1371+97.4	TO 1374+68.4	28.0	9.3
TOTALS:		184.0	61.2
ROUND TO:		184	61

NOTE:
1. SHORT TERM MARKING WIDTH IS 4".

MODEL: Plan2
FILE NAME: I:\Projects\2018\1011901_PFB_193-025_DS_Voribus_Phase_HitWork_Order_2\Drawings\CADD_Sheets\0570B78-qs-Reschedule.dgn

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 605-0403
www.prairieengineers.com
Professional Design Firm No. 1544005955
© Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = dbrennan	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

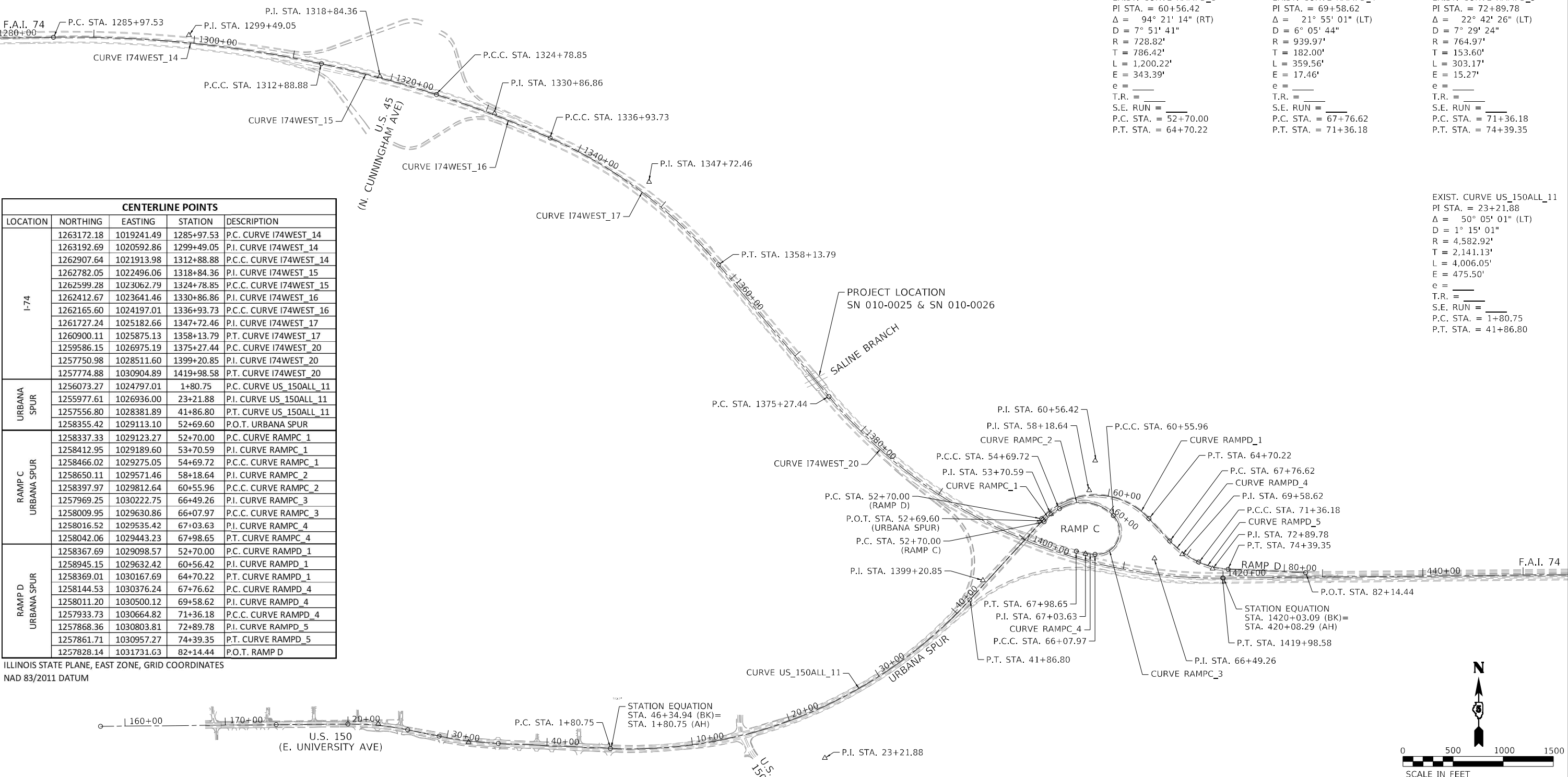
**SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
SCHEDULES OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	10
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

EXIST. CURVE I74WEST_14 PI STA. = 1299+49.05 $\Delta = 13^\circ 02' 43''$ (RT) $D = 0^\circ 29' 05''$ $R = 11,820.52'$ $T = 1,351.52'$ $L = 2,691.36'$ $E = 77.01'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 1285+97.53$ $P.T. STA. = 1312+88.88$	EXIST. CURVE I74WEST_15 PI STA. = 1318+84.36 $\Delta = 5^\circ 41' 52''$ (RT) $D = 0^\circ 28' 44''$ $R = 11,966.19'$ $T = 595.47'$ $L = 1,189.97'$ $E = 14.81'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 1312+88.88$ $P.T. STA. = 1324+78.85$	EXIST. CURVE I74WEST_16 PI STA. = 1330+86.86 $\Delta = 6^\circ 06' 11''$ (RT) $D = 0^\circ 30' 08''$ $R = 11,405.33'$ $T = 608.01'$ $L = 1,214.88'$ $E = 16.19'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 1324+78.85$ $P.T. STA. = 1336+93.73$	EXIST. CURVE I74WEST_17 PI STA. = 1347+72.46 $\Delta = 26^\circ 05' 13''$ (RT) $D = 1^\circ 13' 50''$ $R = 4,656.37'$ $T = 1,078.73'$ $L = 2,120.07'$ $E = 123.32'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 1336+93.73$ $P.T. STA. = 1358+13.79$	EXIST. CURVE I74WEST_20 PI STA. = 1399+20.85 $\Delta = 50^\circ 38' 09''$ (LT) $D = 1^\circ 07' 57''$ $R = 5,059.20'$ $T = 2,393.41'$ $L = 4,471.13'$ $E = 537.58'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 1375+27.44$ $P.T. STA. = 1419+98.58$	EXIST. CURVE RAMPC_1 PI STA. = 53+70.59 $\Delta = 16^\circ 54' 07''$ (RT) $D = 8^\circ 27' 46''$ $R = 677.02'$ $T = 100.59'$ $L = 199.72'$ $E = 7.43'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 52+70.00$ $P.T. STA. = 54+69.72$	EXIST. CURVE RAMPC_2 PI STA. = 58+18.64 $\Delta = 78^\circ 06' 52''$ (RT) $D = 13^\circ 19' 28''$ $R = 430.00'$ $T = 348.92'$ $L = 586.24'$ $E = 123.76'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 54+69.72$ $P.T. STA. = 60+55.96$	EXIST. CURVE RAMPC_3 PI STA. = 66+49.26 $\Delta = 137^\circ 39' 47''$ (RT) $D = 24^\circ 56' 19''$ $R = 229.75'$ $T = 593.29'$ $L = 552.01'$ $E = 406.48'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 60+55.96$ $P.T. STA. = 66+07.97$	EXIST. CURVE RAMPC_4 PI STA. = 67+03.63 $\Delta = 11^\circ 32' 55''$ (RT) $D = 6^\circ 03' 25''$ $R = 945.96'$ $T = 95.66'$ $L = 190.67'$ $E = 4.82'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 66+07.97$ $P.T. STA. = 67+98.65$
--	---	---	--	--	---	--	---	--

EXIST. CURVE RAMPD_1 PI STA. = 60+56.42 $\Delta = 94^\circ 21' 14''$ (RT) $D = 7^\circ 51' 41''$ $R = 728.82'$ $T = 786.42'$ $L = 1,200.22'$ $E = 343.39'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 52+70.00$ $P.T. STA. = 64+70.22$	EXIST. CURVE RAMPD_4 PI STA. = 69+58.62 $\Delta = 21^\circ 55' 01''$ (LT) $D = 6^\circ 05' 44''$ $R = 939.97'$ $T = 182.00'$ $L = 359.56'$ $E = 17.46'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 67+76.62$ $P.T. STA. = 71+36.18$	EXIST. CURVE RAMPD_5 PI STA. = 72+89.78 $\Delta = 22^\circ 42' 26''$ (LT) $D = 7^\circ 29' 24''$ $R = 764.97'$ $T = 153.60'$ $L = 303.17'$ $E = 15.27'$ $e = ______$ $T.R. = ______$ $S.E. RUN = ______$ $P.C. STA. = 71+36.18$ $P.T. STA. = 74+39.35$
---	--	--



CENTERLINE POINTS				
LOCATION	NORTHING	EASTING	STATION	DESCRIPTION
I-74	1263172.18	1019241.49	1285+97.53	P.C. CURVE I74WEST_14
	1263192.69	1020592.86	1299+49.05	P.I. CURVE I74WEST_14
	1262907.64	1021913.98	1312+88.88	P.C.C. CURVE I74WEST_14
	1262782.05	1022496.06	1318+84.36	P.I. CURVE I74WEST_15
	1262599.28	1023062.79	1324+78.85	P.C.C. CURVE I74WEST_15
	1262412.67	1023641.46	1330+86.86	P.I. CURVE I74WEST_16
	1262165.60	1024197.01	1336+93.73	P.C.C. CURVE I74WEST_16
	1261727.24	1025182.66	1347+72.46	P.I. CURVE I74WEST_17
	1260900.11	1025875.13	1358+13.79	P.T. CURVE I74WEST_17
	1259586.15	1026975.19	1375+27.44	P.C. CURVE I74WEST_20
1257750.98	1028511.60	1399+20.85	P.I. CURVE I74WEST_20	
1257774.88	1030904.89	1419+98.58	P.T. CURVE I74WEST_20	
URBANA SPUR	1256073.27	1024797.01	1+80.75	P.C. CURVE US_150ALL_11
	1255977.61	1026936.00	23+21.88	P.I. CURVE US_150ALL_11
	1257556.80	1028381.89	41+86.80	P.T. CURVE US_150ALL_11
RAMP C URBANA SPUR	1258355.42	1029113.10	52+69.60	P.O.T. URBANA SPUR
	1258337.33	1029123.27	52+70.00	P.C. CURVE RAMPC_1
	1258412.95	1029189.60	53+70.59	P.I. CURVE RAMPC_1
	1258466.02	1029275.05	54+69.72	P.C.C. CURVE RAMPC_1
	1258650.11	1029571.46	58+18.64	P.I. CURVE RAMPC_2
	1258397.97	1029812.64	60+55.96	P.C.C. CURVE RAMPC_2
	1257969.25	1030222.75	66+49.26	P.I. CURVE RAMPC_3
	1258009.95	1029630.86	66+07.97	P.C.C. CURVE RAMPC_3
	1258016.52	1029535.42	67+03.63	P.I. CURVE RAMPC_4
	1258042.06	1029443.23	67+98.65	P.T. CURVE RAMPC_4
RAMP D URBANA SPUR	1258367.69	1029098.57	52+70.00	P.C. CURVE RAMPD_1
	1258945.15	1029632.42	60+56.42	P.I. CURVE RAMPD_1
	1258369.01	1030167.69	64+70.22	P.T. CURVE RAMPD_1
	1258144.53	1030376.24	67+76.62	P.C. CURVE RAMPD_4
	1258011.20	1030500.12	69+58.62	P.I. CURVE RAMPD_4
	1257933.73	1030664.82	71+36.18	P.C.C. CURVE RAMPD_4
1257868.36	1030803.81	72+89.78	P.I. CURVE RAMPD_5	
1257861.71	1030957.27	74+39.35	P.T. CURVE RAMPD_5	
1257828.14	1031731.63	82+14.44	P.O.T. RAMP D	

ILLINOIS STATE PLANE, EAST ZONE, GRID COORDINATES
 NAD 83/2011 DATUM

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 194-000965
 Copyright 2022 Prairie Engineers, P.C.

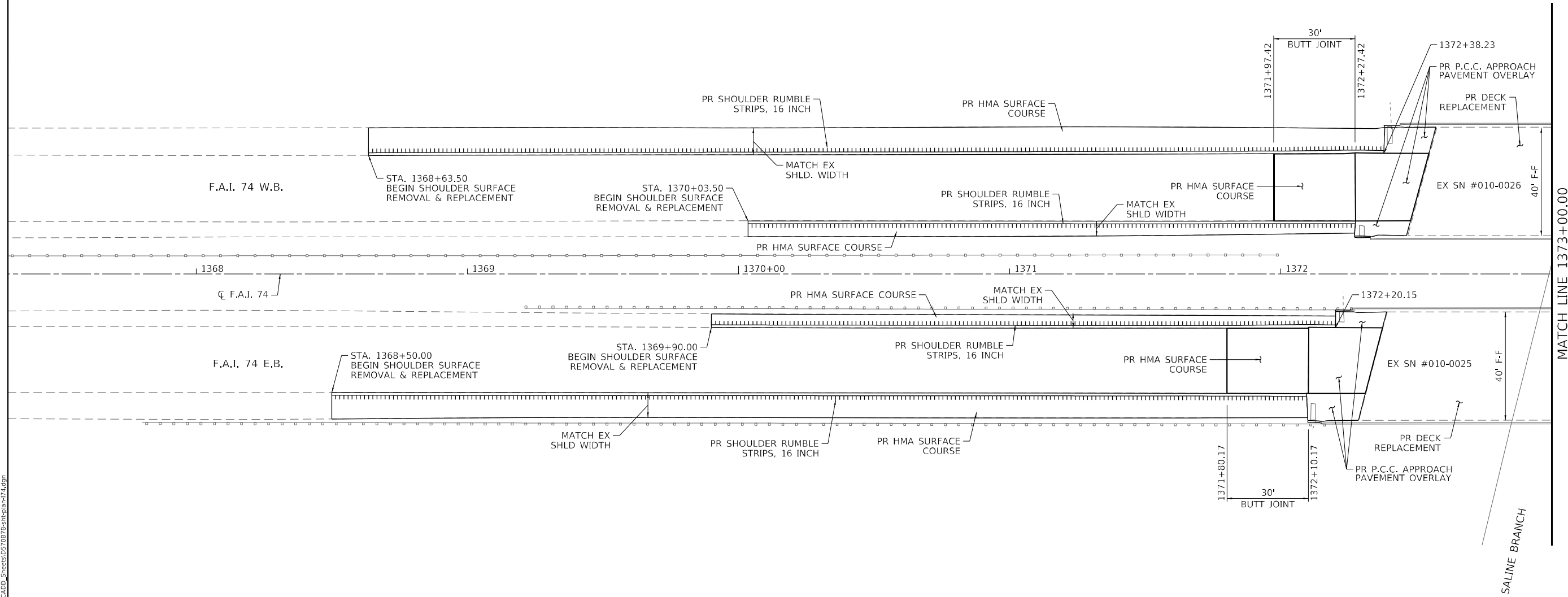
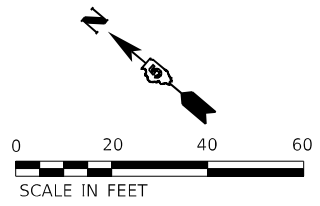
USER NAME = dbrennan	DESIGNED -	REVISED -
PLOT SCALE = 1000.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
ALIGNMENTS, TIES & BENCHMARKS
 SCALE: 1" = 500' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	11
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

MODEL: A75
 FILE: NAME: R:\03\1011901_PFB_193-025_DS_Varibus_Phase_HitWork_Order_2\Drawings\CADD_Sheets\0570B78-11-11.dwg



MODEL: I-74_Plan1
 FILE NAME: \\sbs301b1011901_PFB_193-025_D5_Vorbus_Phase_HillWork_Order_2\Drawings\CADD_Sheets\0570B78\SheetPlan-I74.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 © Copyright Prairie Engineers of Illinois, P.C. 2022

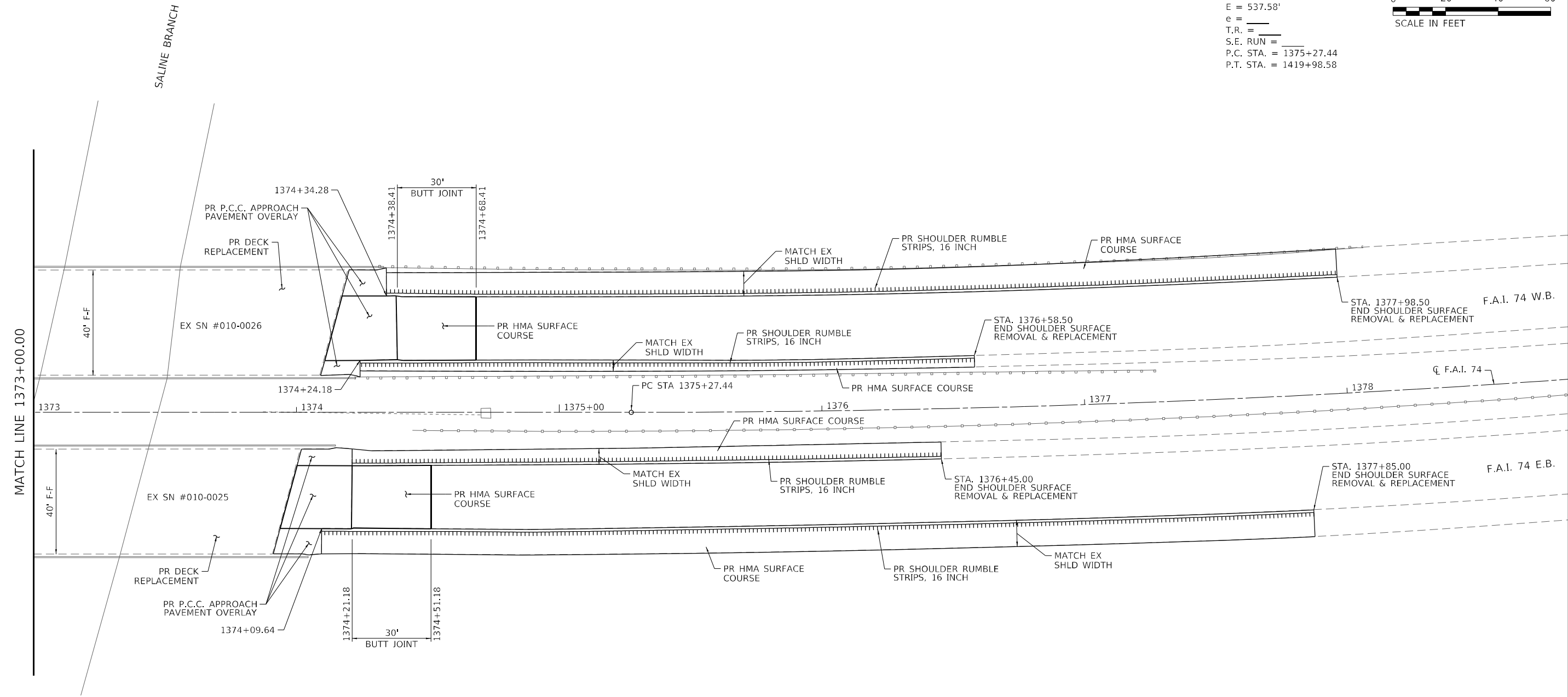
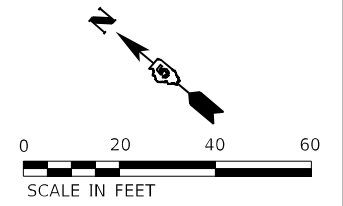
USER NAME =	Dbrennan	DESIGNED -	REVISED -
DRAWN -		REVISED -	
PLOT SCALE =	40.0000' / in.	CHECKED -	REVISED -
PLOT DATE =	3/22/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
PLAN SHEET: I-74
 SCALE: 1" = 20' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	12
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^{\circ} 38' 09''$ (LT)
 $D = 1^{\circ} 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 P.C. STA. = 1375+27.44
 P.T. STA. = 1419+98.58



MODEL: I-74_Plan.dwg
 FILE NAME: I:\Projects\2022\70B78\Drawings\CADD_Sheets\0570B78\Plan-I74.dwg

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
PLAN SHEET: I-74
 SCALE: 1" = 20' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	13
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

PRE-STAGE OVERVIEW

I-74:

CLOSE OUTSIDE LANE IN EACH DIRECTION AT SN 010-0025 AND SN 010-0026 TO MILL AND RESURFACE THE OUTSIDE SHOULDERS TO THE LIMITS SHOWN IN THE REMOVAL PLANS. ONE SHOULDER SHALL BE COMPLETELY PAVED BEFORE MILLING THE OTHER SHOULDER. THE SHOULDER SURFACE COURSE SHALL BE PLACED THE SAME DAY THE STRETCH OF SHOULDER IS MILLED.

STAGE I OVERVIEW

I-74:

CLOSE THE I-74 INSIDE LANES TO TRAFFIC AT SN 010-0025 AND SN 010-0026 FOR THE REMAINDER OF STAGE I. MAINTAIN ONE LANE OF TRAFFIC PER DIRECTION. INSTALL THE TEMPORARY CONCRETE BARRIER AT SN 010-0025 AND SN 010-0026. PERFORM BRIDGE WORK AND APPROACH PAVEMENT WORK.

STAGE II OVERVIEW

I-74:

CLOSE THE I-74 OUTSIDE LANES TO TRAFFIC FOR THE REMAINDER OF STAGE II. MAINTAIN ONE LANE OF TRAFFIC PER DIRECTION. RELOCATE AND INSTALL THE TEMPORARY CONCRETE BARRIER AT SN 010-0025 AND SN 010-0026. PERFORM BRIDGE WORK AND APPROACH PAVEMENT WORK.

STAGE III OVERVIEW

I-74:

OPEN ALL LANES ON I-74 TO TRAFFIC. PERFORM CLEANUP OPERATIONS AS DIRECTED BY THE RESIDENT ENGINEER.

NOTES:

1. THIS IS A SUGGESTED STAGING PLAN. THE CONTRACTOR SHALL SUBMIT ANY PROPOSED CHANGES TO THIS PLAN TO THE ENGINEER, IN WRITING, FOR CONSIDERATION. NO CHANGES SHALL BE MADE TO THE PROPOSED STAGING WITHOUT WRITTEN APPROVAL FROM THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS ASSOCIATED WITH CHANGES TO STAGING REQUESTED BY THE CONTRACTOR.
2. ALL WORK REQUIRING LANE CLOSURES ON I-74 WITHOUT A BARRIER SHALL BE RESTRICTED TO NIGHTTIME LANE CLOSURES. THIS INCLUDES, BUT IS NOT LIMITED TO, SETTING TEMPORARY CONCRETE BARRIER, RELOCATING TEMPORARY CONCRETE BARRIER, SHOULDER WORK, STRIPING AND GUARDRAIL WORK. THIS WORK SHALL BE LIMITED TO SUNDAY, MONDAY, TUESDAY, WEDNESDAY OR THURSDAY BETWEEN 10:00 P.M. TO 6:00 A.M. ALL DEVICES AND THE FIRST TWO WARNING SIGNS SHALL HAVE LIGHTS AS SPECIFIED IN STANDARD 701401.
3. TEMPORARY CONCRETE BARRIER SHALL BE SECURED TO THE PAVEMENT ACCORDING TO SAFETY ENGINEERING POLICY MEMORANDUM 4-21 AND THE STANDARD SPECIFICATIONS.
4. ALL TEMPORARY AND PERMANENT SIGNAGE SHALL BE POSITIONED IN ACCORDANCE WITH THE GUIDELINES IN THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL AND DEVICES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. THE LANE CLOSURES AND TEMPORARY CONCRETE BARRIER FOR STAGE I TRAFFIC CONTROL SHALL NOT BE INSTALLED ON I-74 BEFORE _____, 2023, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

MODEL: Staging Overview.dwg
 FILE NAME: \\sbs301b1\01_1901_PFB_193-025_D5_Voribus_Phase_HillWork_Order_2\Drawings\CADD_Sheets\0570878\staging-GenNotes.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 1544405965
 ENGINEERS SURVEYORS SCIENTISTS
 © Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/30/2022	DATE -	REVISED -

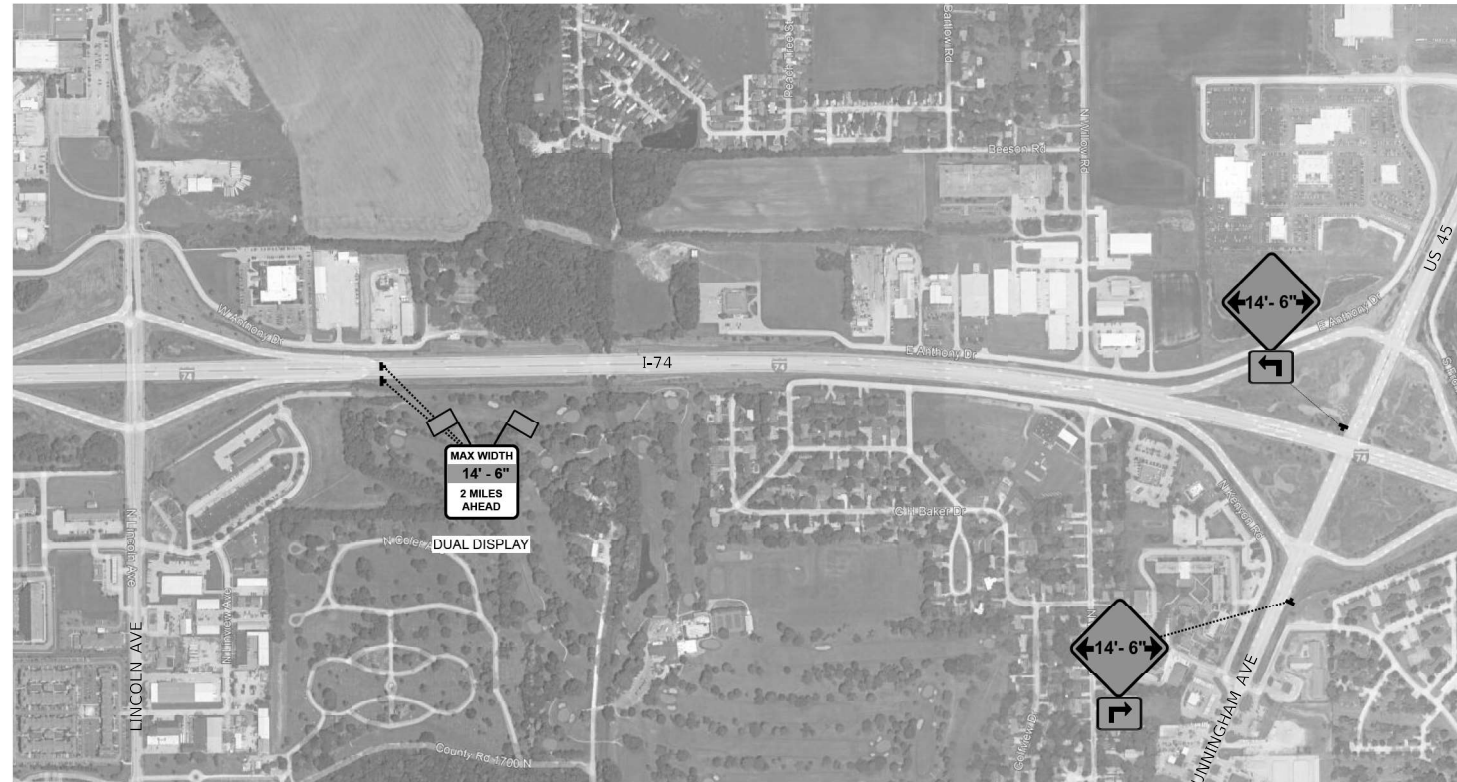
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA

STAGING OVERVIEW

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	14
CONTRACT NO. 70B78				
		ILLINOIS	FED. AID PROJECT	



SIGNING WEST OF PROJECT LOCATION



SIGNING EAST OF PROJECT LOCATION



MODEL: Width Restriction; FILE: NAME: \\sbs303\B\101\1901_PFB_193-025_D5_Varibus_Phase_2\Drawings\CADD_Sheets\0570B78\shs\shs\shs\WidthRestrict.dwg

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 © Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME =	Dbrennan	DESIGNED -	REvised -
DRAWN -		DRAWN -	REvised -
CHECKED -		CHECKED -	REvised -
DATE -	3/22/2022	DATE -	REvised -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

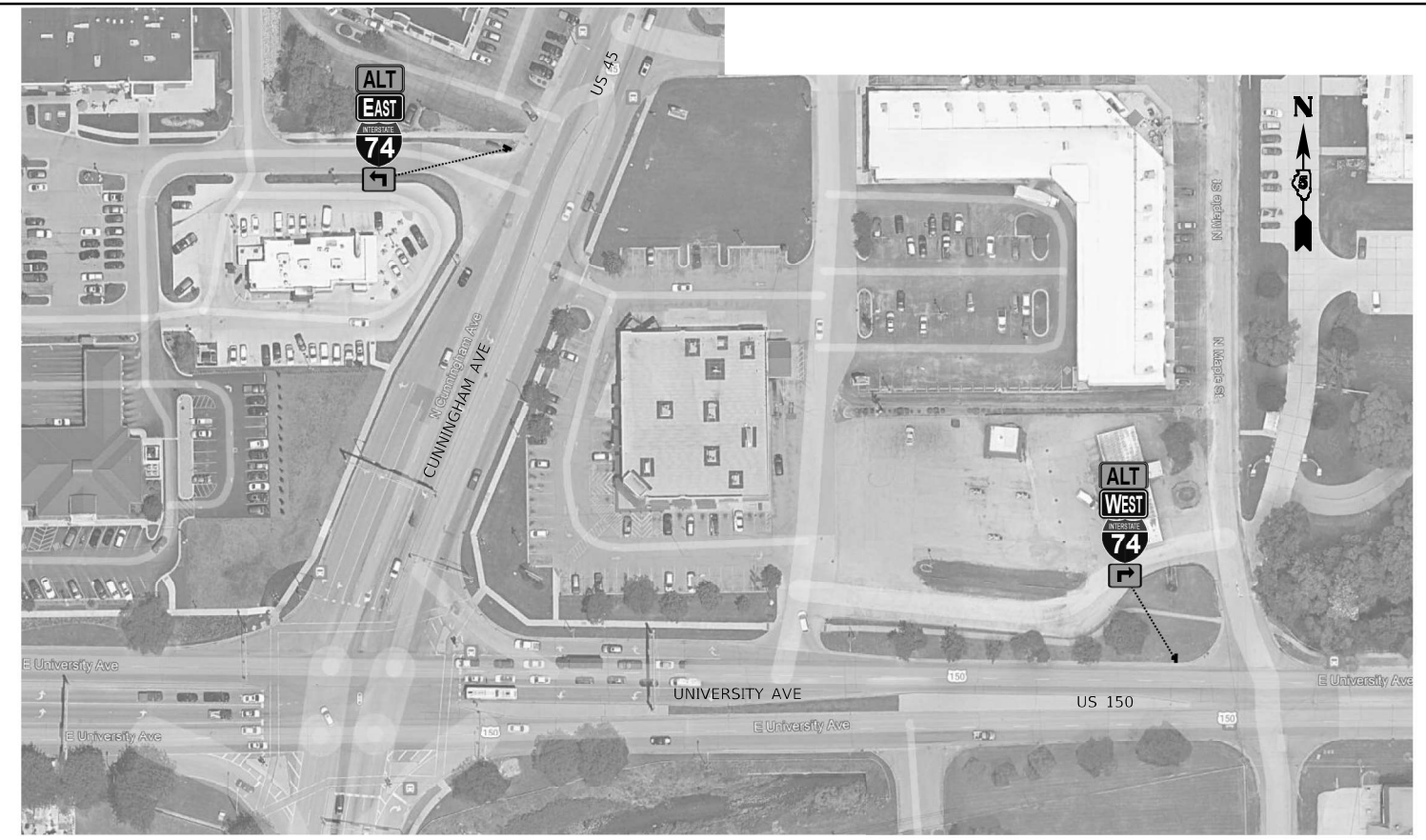
WIDTH RESTRICTION SIGNING PLAN

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	15
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				



1



2



3

MODEL: Alt Route 01
FILE NAME: \\sbs301\1011901_PFB_193-025_D5_Varibus_Phase_HilWork_Order_2\Drawings\CADD_Sheets\0570878-rt-stading-AltRoute.dgn

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 605-0403
www.prairieengineers.com
Professional design firm no. 154405965
Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan
DESIGNED -
DRAWN -
CHECKED -
DATE -
PLOT SCALE = 2,000' / 1" / in.
PLOT DATE = 3/22/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -
REVIS

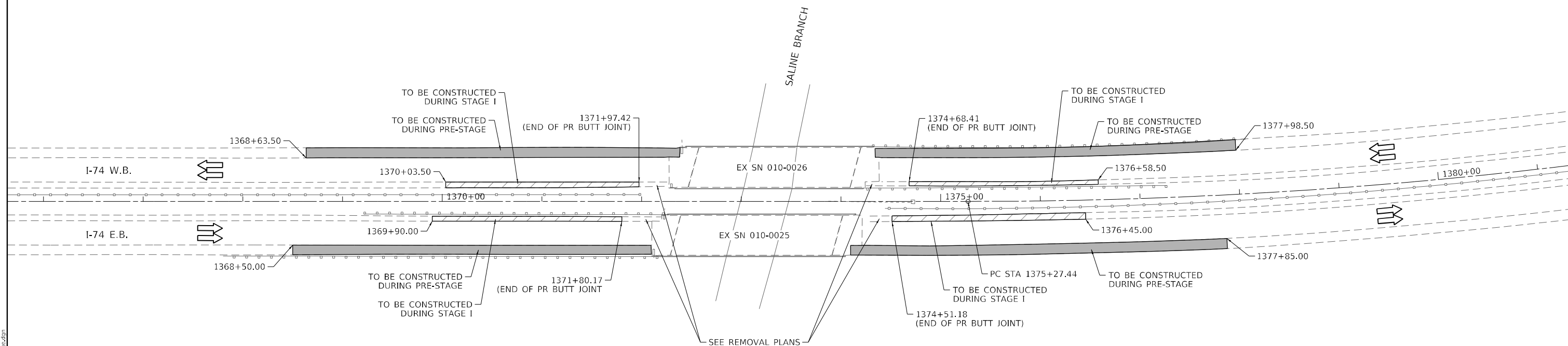
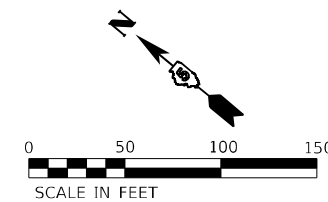
REVIS
REVIS
REVIS
REVIS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALTERNATE ROUTE SIGNING PLAN

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	16
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	



LEGEND

- PRE-STAGE HMA SHOULDER MILL & RESURFACE
- STAGE I MILL & RESURFACE
- DIRECTION OF TRAFFIC

MODEL: I74_Prestage.dwg
 FILE NAME: I:\Projects\74_Prestage\Drawings\CADD_Sheets\05708785\staged\I74_Prestage.dwg

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
Professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME =	Blrennan	DESIGNED -	REVISED -
DRAWN -		DRAWN -	REVISED -
PLOT SCALE =	100,0000' / in.	CHECKED -	REVISED -
PLOT DATE =	3/22/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

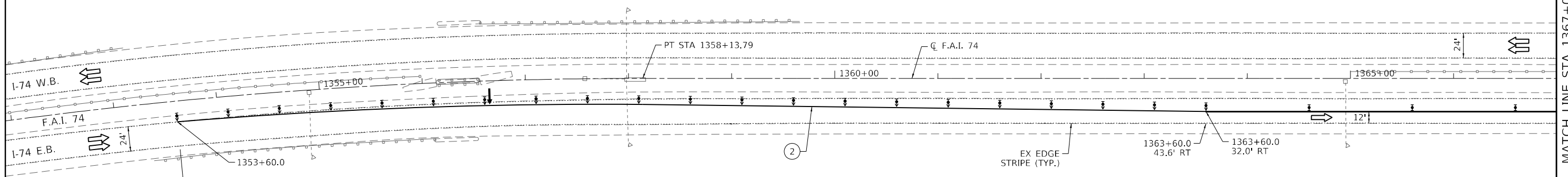
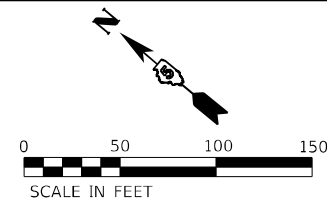
SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
STAGED SHOULDER: I-74
 SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	17
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

EXIST. CURVE I74WEST_17
 PI STA. = 1347+72.46
 $\Delta = 26^\circ 05' 13''$ (RT)
 $D = 1^\circ 13' 50''$
 $R = 4,656.37'$
 $T = 1,078.73'$
 $L = 2,120.07'$
 $E = 123.32'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 1336+93.73
 P.T. STA. = 1358+13.79

TEMPORARY PAVEMENT MARKING LEGEND

①	4" SOLID (WHITE)
②	4" SOLID (YELLOW)

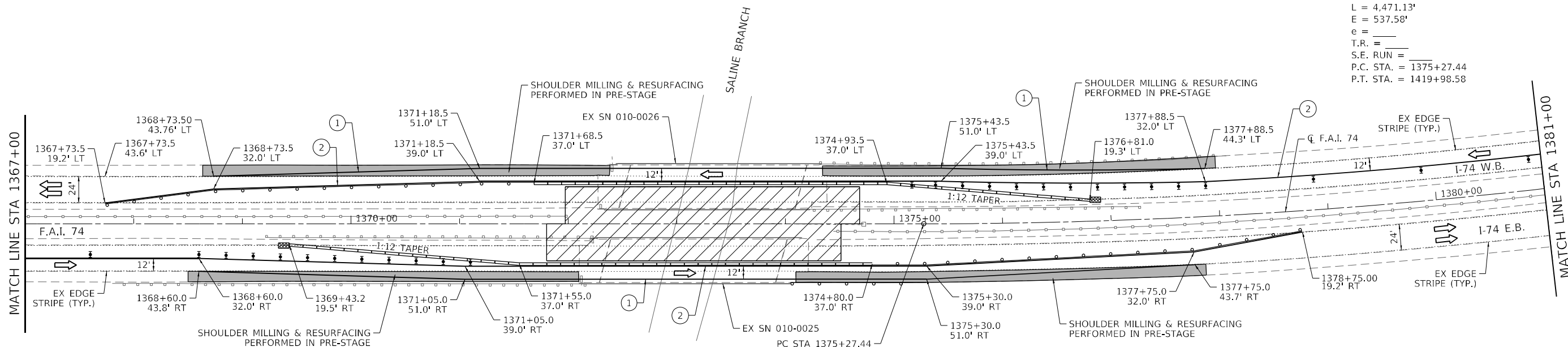


*STD 701400-11 SHALL BE USED WITH THE FOLLOWING EXCEPTION: ADDITIONAL SIGNING IN ACCORDANCE WITH STD 701400-11 WILL BE REQUIRED ON THE US 45 (CUNNINGHAM AVE) EASTBOUND ON-RAMP.

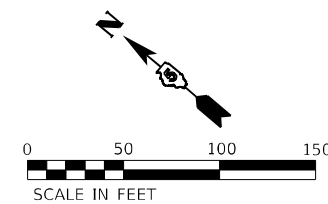
STAGING LEGEND

	WORK AREA		DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
	ARROW BOARD		TEMPORARY CONCRETE BARRIER
	SIGN		IMPACT ATTENUATOR
	DIRECTIONAL INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT		TRAFFIC DIRECTION
	LINE OF DRUMS		

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 1375+27.44
 P.T. STA. = 1419+98.58



NOTE:
 STATIONS & OFFSETS TO TEMPORARY CONCRETE BARRIER ARE TO THE CENTER OF THE BARRIER.



MODEL I-74 Stage 1 Sheet 1
 FILE NAME: I:\Projects\2022\1901_PFB_193-025_D5_Various_Phase_HHWorke_Order_2\Drawings\CADD_Sheets\05708785-Resurfacing-I74-Stage1.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 154-005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Dbrennan
 PLOT SCALE = 100,0000' / in.
 PLOT DATE = 3/22/2022

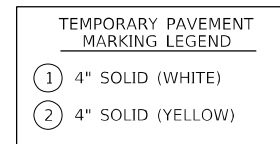
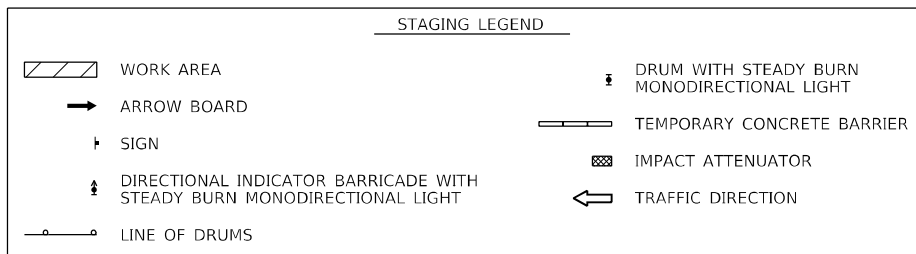
DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

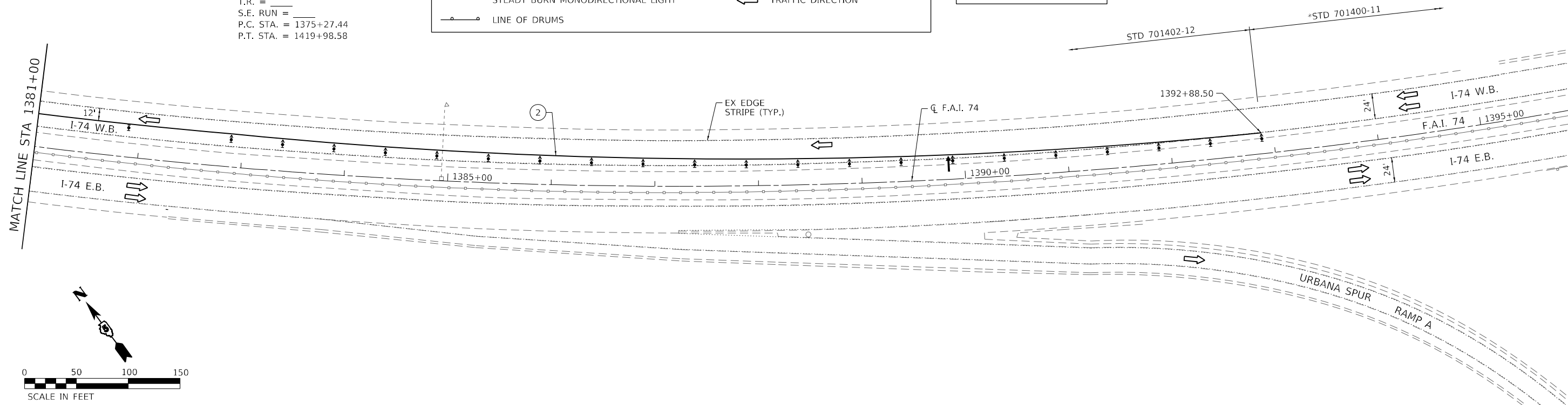
SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
STAGE I: I-74
 SCALE: 1" = 50' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	18
CONTRACT NO. 70B78			ILLINOIS FED. AID PROJECT	

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 1375+27.44$
 $P.T. STA. = 1419+98.58$



*STD 701400-11 SHALL BE USED WITH THE FOLLOWING EXCEPTION: ADDITIONAL SIGNING IN ACCORDANCE WITH STD 701400-11 WILL BE REQUIRED ON THE URBANA SPUR (UNIVERSITY AVE) RAMP C WESTBOUND ON-RAMP.



MODEL: I74_Stage_1_Sheet_2
 FILE NAME: \\sbs301\B1011901_PFB_193-025_D5_Voribus_Phase_HilWork_Order_2\Drawings\CADD_Sheets\0570878\staging\I74-Stage1.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan
 PLOT SCALE = 100,0000 ' / in.
 PLOT DATE = 3/22/2022

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

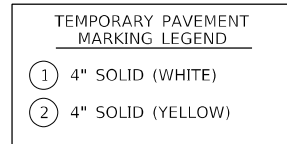
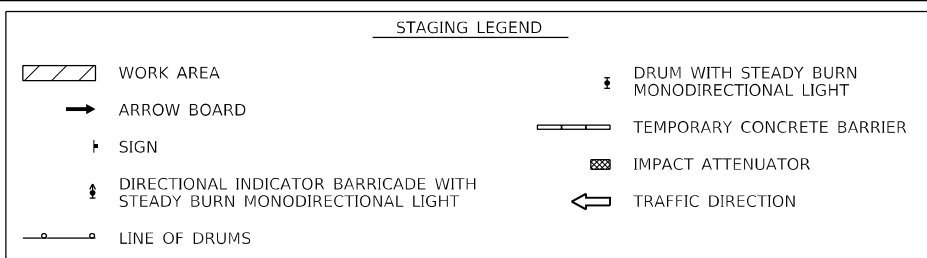
REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

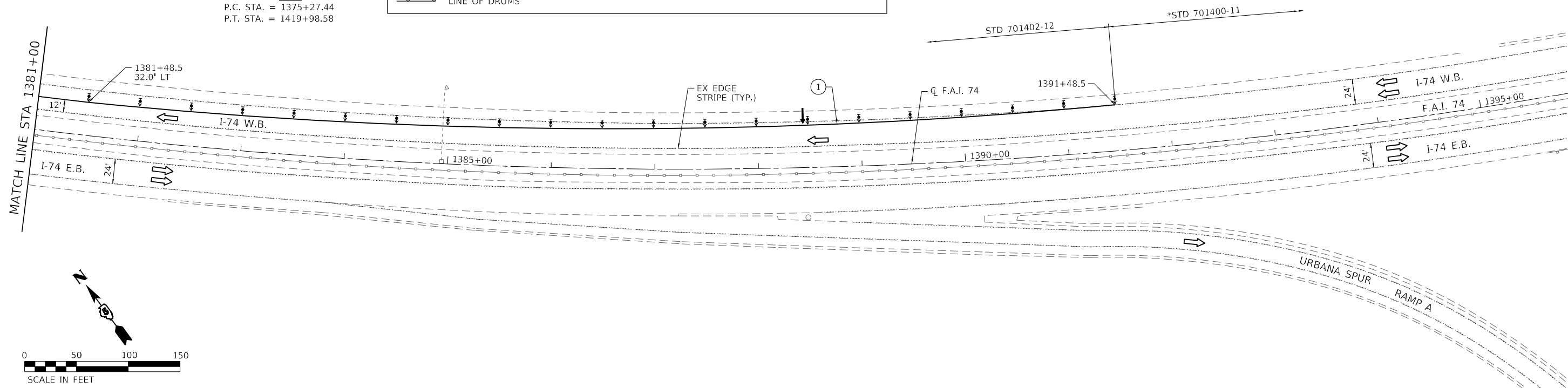
SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
STAGE I: I-74
 SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	19
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70B78	

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 1375+27.44
 P.T. STA. = 1419+98.58



*STD 701400-11 SHALL BE USED WITH THE FOLLOWING EXCEPTION: ADDITIONAL SIGNING IN ACCORDANCE WITH STD 701400-11 WILL BE REQUIRED ON THE URBANA SPUR (UNIVERSITY AVE) RAMP C WESTBOUND ON-RAMP.



MODEL: I-74 Stage 2 Sheet 2
 FILE NAME: \\sbs301\B1011901_PFB_193-025_D5_Voribus_Phase_2\Drawings\CADD_Sheets\05708785-st-stding-I74-Stage2.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 100,0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

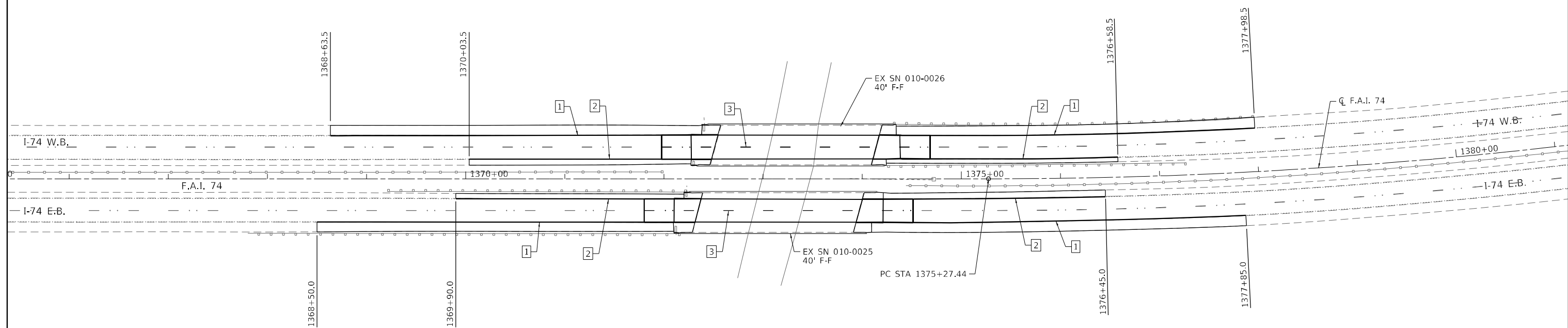
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
STAGE II: I-74
 SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. TO STA.

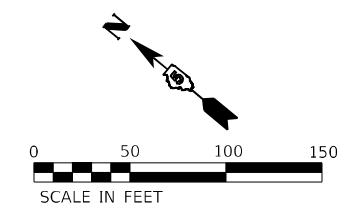
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	21
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 1375+27.44
 P.T. STA. = 1419+98.58

SALINE
BRANCH



PAVEMENT MARKING LEGEND	
1	6" SOLID (WHITE)
2	6" SOLID (YELLOW)
3	6" SKIP-DASH (WHITE)
•••	RAISED REFLECTIVE PAVEMENT MARKER



MODEL: I-74_PMK_Sheet_1
 FILE NAME: \\sbs301\101\1901_PFB_193-025_D5_Voribus_Phase_HillWork_Order_2\Drawings\CADD_Sheets\05708785\tpmk\I74.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME =	Dbrennan	DESIGNED -	REVISOR -
DRAWN -		CHECKED -	DATE -
PLOT SCALE =	100,0000 1 / in.		
PLOT DATE =	3/22/2022		

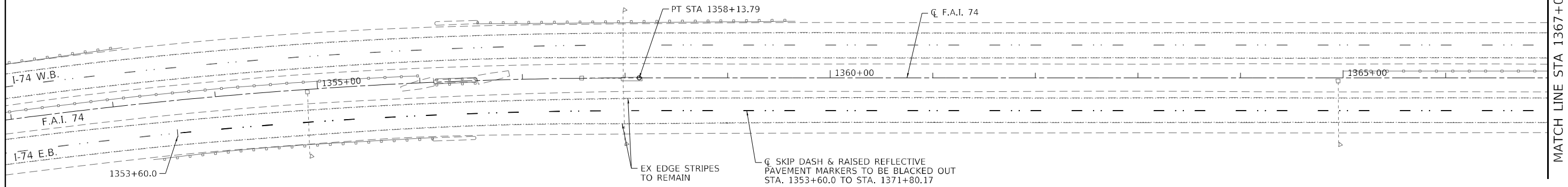
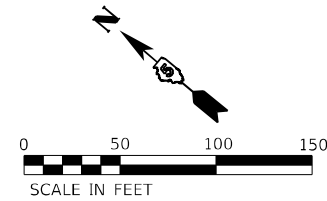
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
PAVEMENT MARKING: I-74

SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. TO STA.

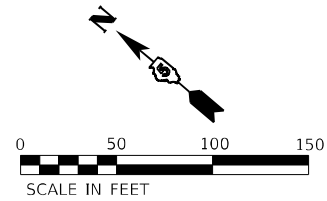
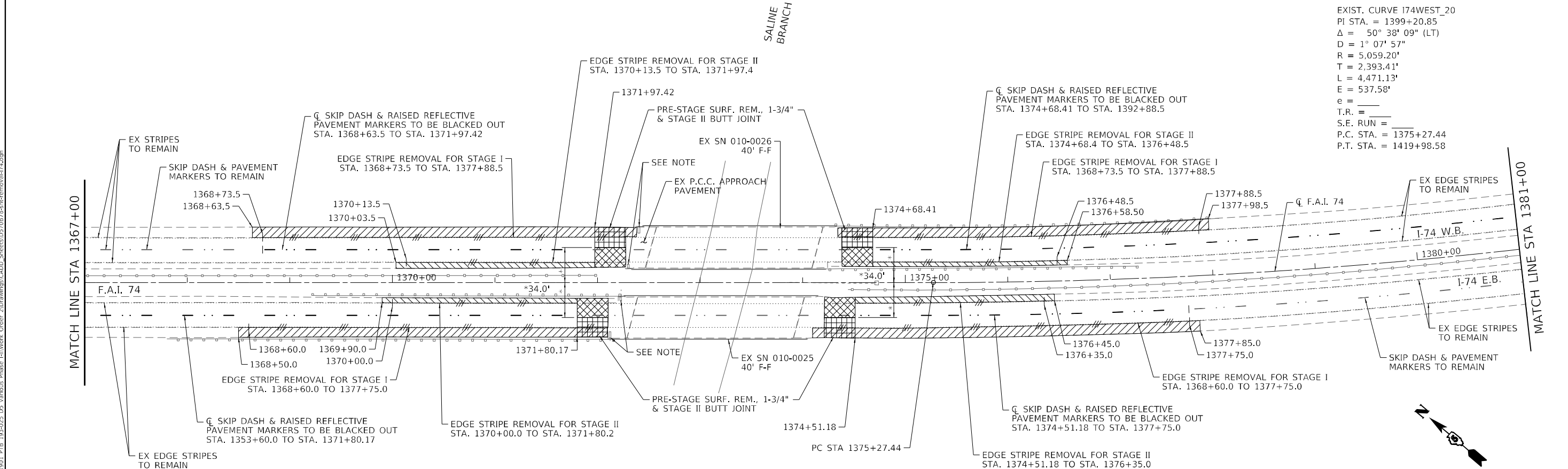
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	22
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

EXIST. CURVE I74WEST_17
 PI STA. = 1347+72.46
 $\Delta = 26^\circ 05' 13''$ (RT)
 $D = 1^\circ 13' 50''$
 $R = 4,656.37'$
 $T = 1,078.73'$
 $L = 2,120.07'$
 $E = 123.32'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 1336+93.73$
 $P.T. STA. = 1358+13.79$



REMOVAL LEGEND	
	PRE-STAGE SURFACE REMOVAL, 1 3/4"
	STAGE I SURFACE REMOVAL, 1 3/4"
	STAGE I BUTT JOINT
	STAGE II BUTT JOINT
	PAINT STRIPE REMOVAL

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 1375+27.44$
 $P.T. STA. = 1419+98.58$



NOTE:
 SECURE INLET GRATES.
 SEE SPECIAL PROVISIONS.

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 154-005965
 Copyright Prairie Engineers of Illinois, P.C., 2022

USER NAME = Dbrennan
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 PLOT SCALE = 100,0000' / in.
 PLOT DATE = 3/22/2022

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

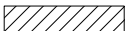
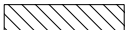



REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

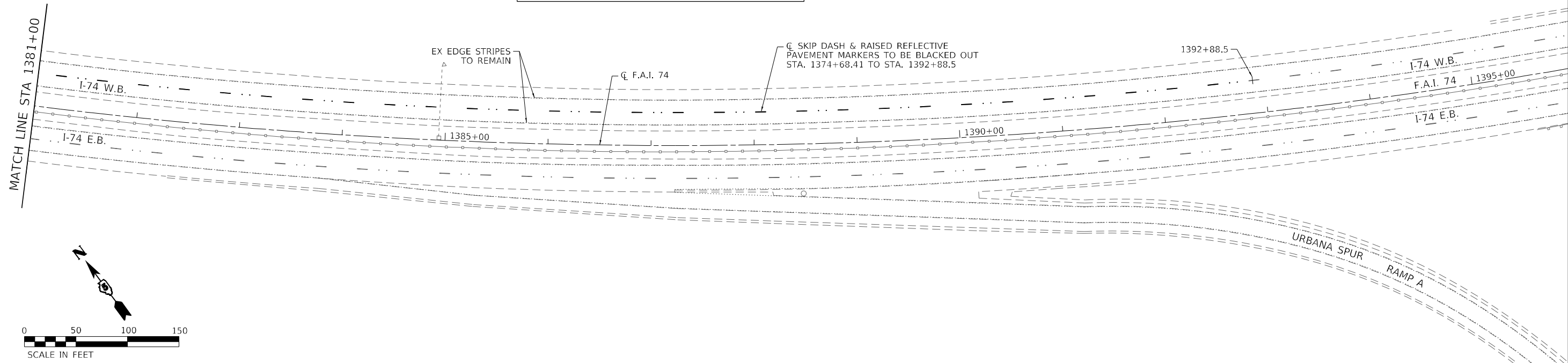
SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
REMOVAL PLAN: I-74
 SCALE: 1" = 50' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	23
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

MODEL: I-74_Removeall_Sheets_1
 FILE NAME: I:\Projects\70B78\Drawings\CADD_Sheets\0570B78_removeallI74.dgn

REMOVAL LEGEND	
	PRE-STAGE I SURFACE REMOVAL, 1 3/4"
	STAGE I SURFACE REMOVAL, 1 3/4"
	STAGE I BUTT JOINT
	STAGE II BUTT JOINT
	PAINT STRIPE REMOVAL

EXIST. CURVE I74WEST_20
 PI STA. = 1399+20.85
 $\Delta = 50^\circ 38' 09''$ (LT)
 $D = 1^\circ 07' 57''$
 $R = 5,059.20'$
 $T = 2,393.41'$
 $L = 4,471.13'$
 $E = 537.58'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 1375+27.44$
 $P.T. STA. = 1419+98.58$



MODEL: I-74 Removal Sheet 2
 FILE NAME: I:\Projects\2022\10-15-2021\1901_PFB_193-025_D5_Voribus_Phase_2\Drawings\CADD_Sheets\05708785-05-01-removal-I74.dgn

Prairie Engineers, P.C.
 404 N. Main Street
 Columbia, IL 62238
 (217) 605-0403
 www.prairieengineers.com
 professional design firm no. 1544005965
 Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 100,0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SALINE BRANCH 1 MILE EAST OF U.S. 45 & OVER I-74 EAST OF URBANA
REMOVAL PLAN: I-74
 SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. TO STA.

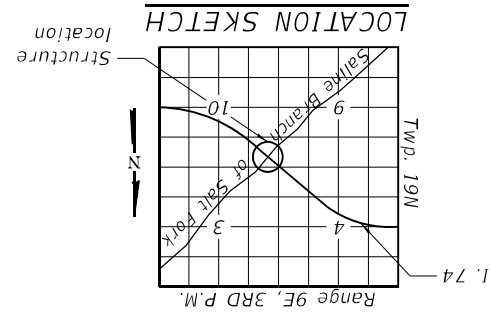
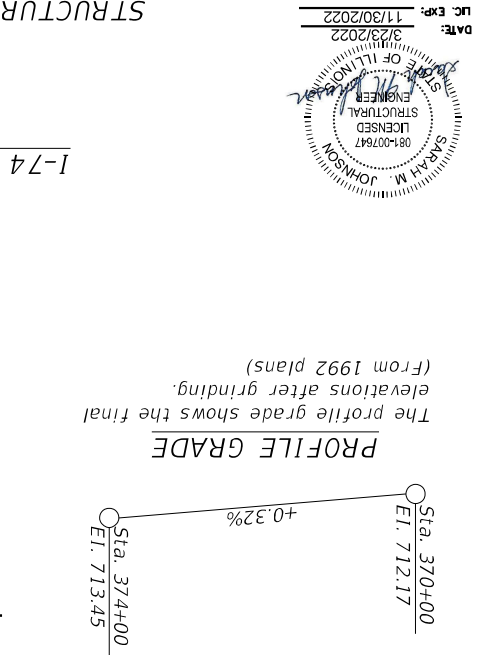
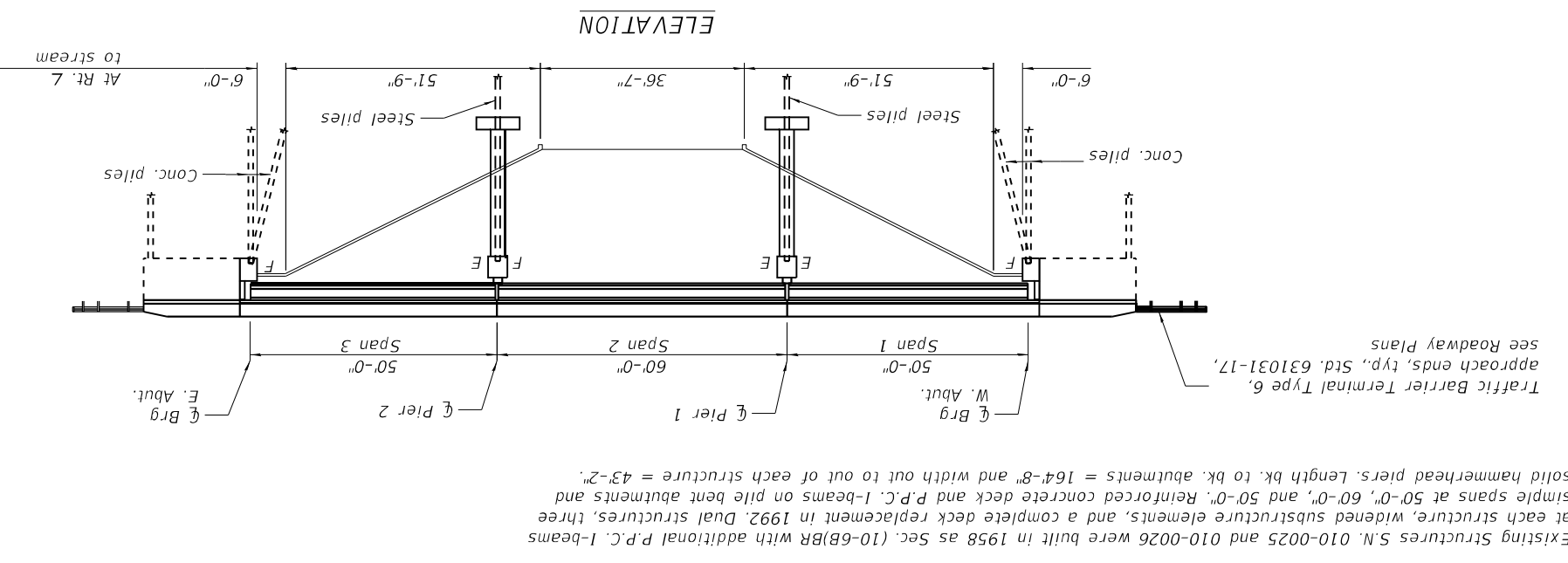
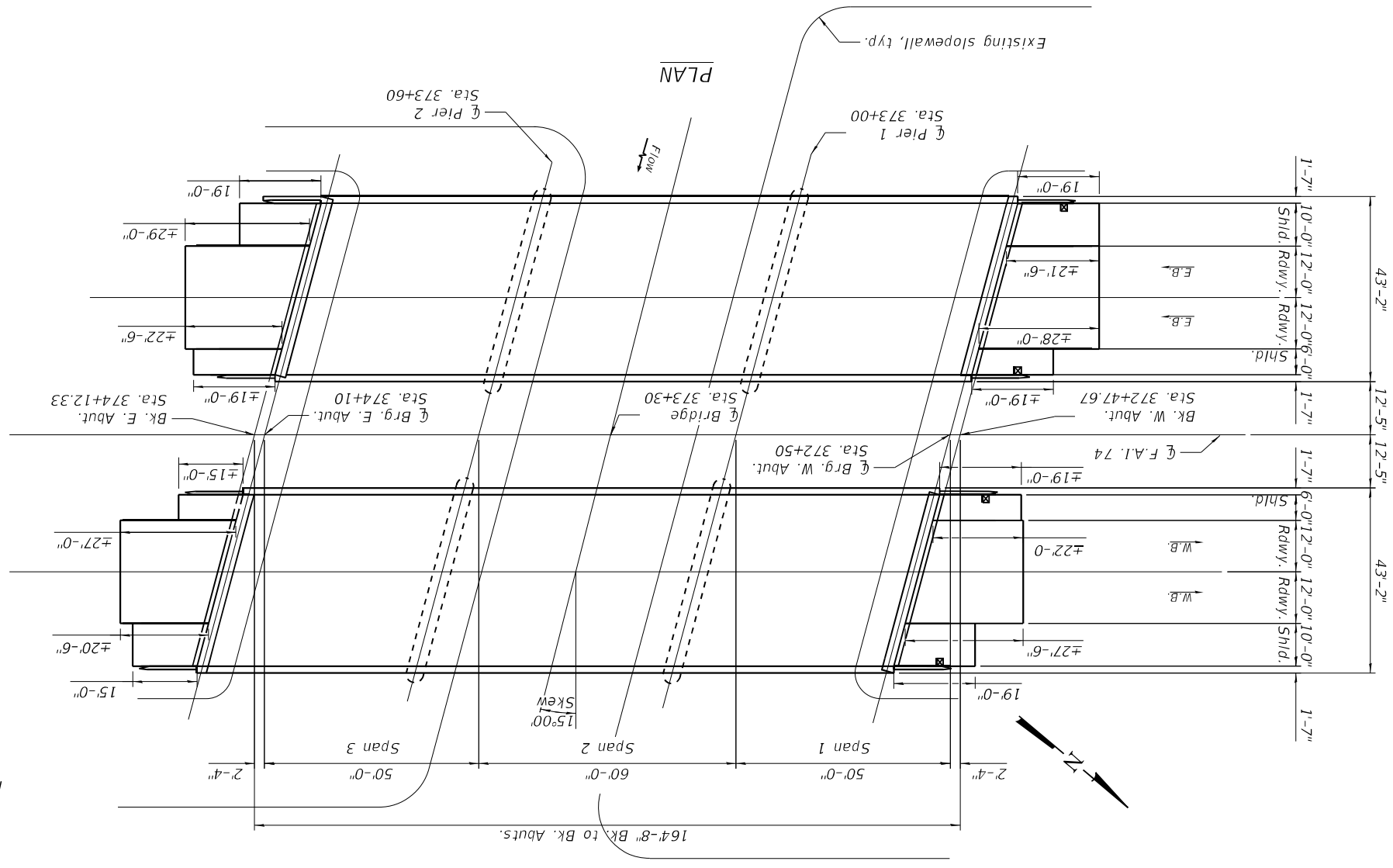
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	24
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

Prairie Engineers, P.C.
 2244 Grosbeak Road
 Washington, IL 61571
 (217) 652-4463
 www.prairieengineers.com
 Professional Design Firm No. 158-05066
 State of Illinois License No. 081-007841

USER NAME = jmassel	DESIGNED - ESN & SMJ	REVISD -
CHECKED - SMJ	REVISD -	REVISD -
DRAWN - JZM & JLM	REVISD -	REVISD -
CHECKED - JZM & JLM	REVISD -	REVISD -
DESIGNED - ESN & SMJ	REVISD -	REVISD -
CHECKED - SMJ	REVISD -	REVISD -
CHECKED - SMJ	REVISD -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 26 SHEETS		ILLINOIS FED. AID PROJECT	
CONTRACT NO. 70B78		SECTION (10-6B)BR-1	
TOTAL SHEETS 25		CHAMPAIGN COUNTY	
TOTAL SHEETS NO. 25		CHAMPAIGN COUNTY	



- SCOPE OF WORK:**
1. Complete bridge scarification $\frac{3}{4}$.
 2. Complete full-depth deck patching, removal of deck ends, parapets, and hatch blocks.
 3. Complete structural repair of concrete on piers.
 4. Complete repairs on PPC I-Beams.
 5. Replace bearings at piers.
 6. Clean and paint bearings at abutments.
 7. Cast deck ends, parapet ends and hatch blocks.
 8. Place preformed joint strip seal.
 9. Adjust inlets in approaches.
 10. Place bridge deck latex concrete overlay, $2\frac{1}{2}$ ".
 11. Complete diamond grinding and bridge deck grooving (longitudinal).
- DESIGN CRITERIA (EXIST.)**
- Design Specification (Original):
 A.A.S.H.T.O. 1953 Edition and B.P.R. "Criteria for Prestressed Concrete Bridges," 1954
 A.A.S.H.T.O. 1983 Standard Specification for Highway Bridges, 1984 Thru 1989 Interims
 Standard Specification for Road and Bridge Construction State of Illinois dated July 1, 1988
 Loading (Original):
 Live Load - HS 20-516-44 Mod.
 Live Load - HS 20-44 & Alternate
 Allow 25 psf. for future surface
 Structural steel
 f_s = 18,000 psi (Original)
 f_y = 60,000 psi (1992 Rehab.)
 P.P.C. I-Beams (Original)
 f_s = 36,000 psi (1992 Rehab.)
 f_y = 18,000 psi (Original)
 P.P.C. I-Beams (1992 Rehab.)
 f_s = 5000 psi
 f_c = 4000 psi
 Concrete Prestress:
 f_s = 250,000 psi
 f_s = 175,000 psi
 f_s = 250,000 psi
 Steel Prestress:
 f_s = 250,000 psi
 f_s = 175,000 psi
 Concrete Prestress:
 f_s = 5000 psi
 f_c = 4000 psi
 P.P.C. I-Beams (1992 Rehab.)
 f_s = 5000 psi
 f_c = 4000 psi
 Concrete strengths
 f_s = 270,000 psi
 f_s = 189,000 psi
 f_s = 229,500 psi
 f_s* = 183,600 psi
 Prestressed steel $\frac{3}{8}$ " strands

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
- 3-4. Typical Sections
5. Stage Construction Details
6. Temporary Concrete Barrier For Stage Construction
7. Deck Plan
- 8-9. Abutment Joint Replacement Details
- 10-11. Pier Joint Replacement Details
12. Preformed Joint Strip Seal
13. Framing Plan
- 14-16. Beam Repair Details
- 17-18. Bearing Details
19. Abutment Repair Detail
- 20-23. Pier Repair Detail
24. Bar Splicer Assembly and Mechanical Splicer Details
25. Inlet Box To Be Adjusted

DESIGN STRESSES (EXIST.)

Concrete
 f_c = 3500 psi - Superstructure
 f_c = 1400 psi - Substructure (no Earth Pressure)
 f_c = 1000 psi - With Earth Pressure
 Reinforcing steel
 f_y = 56 psi
 f_s = 20,000 psi (Original)
 f_y = 60,000 psi (1992 Rehab.)
 Structural steel
 f_s = 18,000 psi (Original)
 f_y = 36,000 psi (1992 Rehab.)
 P.P.C. I-Beams (Original)
 f_s = 5000 psi
 f_c = 4000 psi
 P.P.C. I-Beams (1992 Rehab.)
 f_s = 5000 psi
 f_c = 4000 psi
 Concrete strengths
 f_s = 270,000 psi
 f_s = 189,000 psi
 f_s = 229,500 psi
 f_s* = 183,600 psi
 Prestressed steel $\frac{3}{8}$ " strands

DESIGN SPECIFICATIONS (PROP.)

AASHTO 2002 Standard Specifications for Highway Bridges, 17th Edition
DESIGN STRESSES (PROP.)

FIELD UNITS
 f_c = 3,500 psi
 f_c = 4,000 psi (Superstructure)
 f_c = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)
 f_y = 50,000 psi (M270 Grade 50)
LOADING HS20-44

GENERAL PLAN AND ELEVATION
 I-74 OVER SALINE BRANCH OF SALT FORK
 F.A.I. 74 - SECTION (10-6B)BR-1
 CHAMPAIGN COUNTY
 STATION 373+30.00
 STRUCTURE NO. 010-0025 (E.B.) AND 010-0026 (W.B.)

Existing Structures S.N. 010-0025 and 010-0026 were built in 1958 as Sec. (10-6B)BR with additional P.P.C. I-beams at each structure, widened substructure elements, and a complete deck replacement in 1992. Dual structures, three simple spans at 50'-0", 60'-0", and 50'-0", and 50'-0" abutments on pile bent abutments and solid hammerhead piers. Length bk. to bk. abutments = 164'-8" and width out to out of each structure = 43'-2".

Traffic Barrier Terminal Type 6, Std. 631031-17, see Roadway Plans



GENERAL NOTES

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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the 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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal and Concrete Superstructure.

Areas of repairs shown are estimated. The engineer shall show actual locations of the repairs on as-built plans.

Up to 1/4 inch may be ground off the bridge deck and the bridge approach slabs.

Protective coat shall be applied to all new concrete superstructure and all new concrete overlays as specified in Article 503.19 of the Standard Specifications.

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

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

All new structural steel and bearing assembly shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing For Structural Steel."

Synthetic Fibers shall be included in the bridge deck concrete overlay specified. See Special Provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	25.7	-	25.7
Concrete Superstructure	Cu. Yd.	29.3	-	29.3
Protective Coat	Sq. Yd.	1,868	-	1,868
Furnishing and Erecting Structural Steel	Pound	18,070	-	18,070
Reinforcement Bars, Epoxy Coated	Pound	9,330	-	9,330
Bar Splicers	Each	88	-	88
Preformed Joint Strip Seal	Foot	348	-	348
Elastomeric Bearing Assembly Type I	Each	48	-	48
Anchor Bolts 1 1/4"	Each	136	-	136
* Cleaning and Painting Bearings	Each	32	-	32
* Inlet Boxes to be Adjusted (Special)	Each	4	-	4
* Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,141	-	1,141
* Jack and Remove Existing Bearings	Each	44	-	44
* Bridge Deck Latex Concrete Overlay 2 1/2"	Sq. Yd.	1,783	-	1,783
* Bridge Deck Scarification 3/4"	Sq. Yd.	1,783	-	1,783
* Structural Repair of Concrete Depth <=5"	Sq. Ft.	-	723	723
* Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	47	-	47
* Diamond Grinding (Bridge Section)	Sq. Yd.	1,676	-	1,676
* Acrylic Coating	Sq. Yd.	95	-	95
* Fiber Wrap	Sq. Ft.	852	-	852
* Removal of Existing Bearings	Each	20	-	20
* Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	319	-	319
* Temporary Shoring and Cribbing	Each	-	20	20

* Special Provision

MODEL: GPE
FILE NAME: I:\jobs\2019\10.1.1901 PTB 193-025 D5 Various Phase -II\Work Order 2\Drawings\CADD_Sheets\Structure 0100025 & 0100026\0100025&26-70B78-002 - GENERAL DATA.dgn

Prairie Engineers, P.C.
22484 Grosenbach Road
Washington, IL 61571
(217) 695-0493
www.prairieengineers.com
Professional Design Firm No. 184-005996
© Copyright Prairie Engineers, P.C. 2022

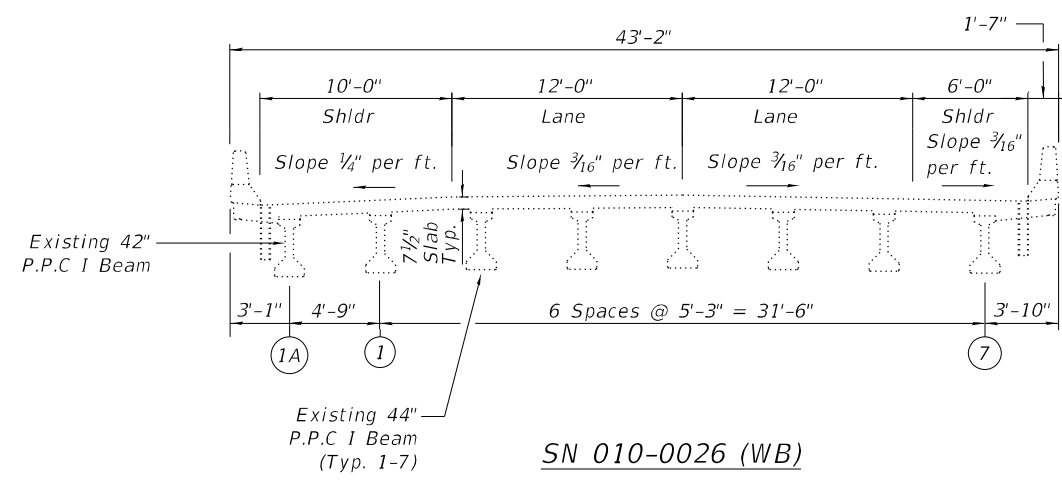
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 " = 1/16"	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - JZM & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

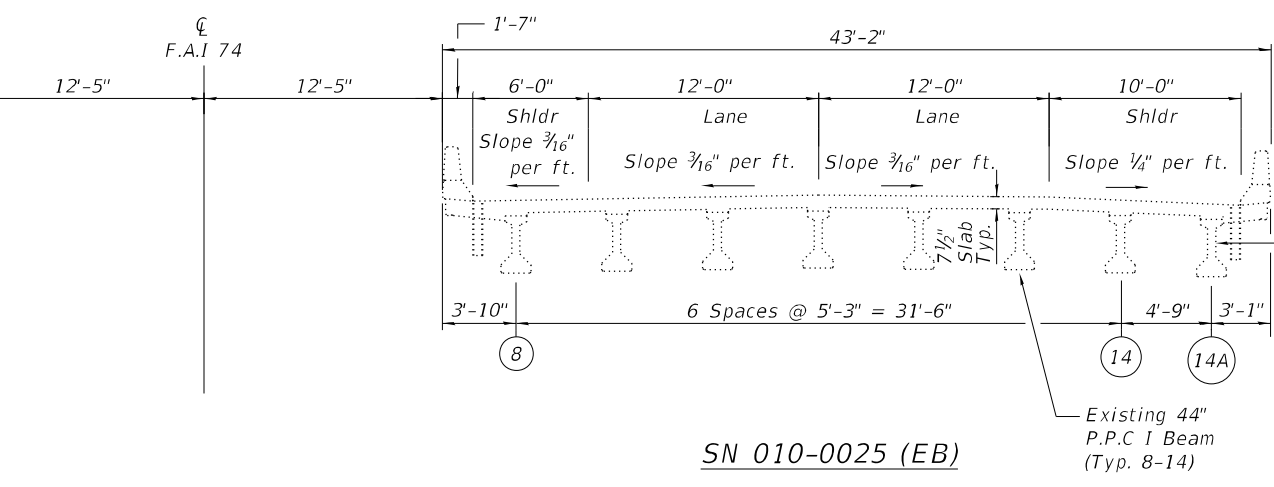
**GENERAL DATA
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	26
CONTRACT NO. 70B78				
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
 FILE NAME: I:\jobs\2019\10.1.1901.PTB.193-025.D5.Variou Phase.HllWork Order.2\Drawings\CADD_Sheets\Structure.0100025 & 0100026\0100025&26-70B78-003 - TYPICAL SECTIONS (DECK).dgn
 3/22/2022 3:19:19 PM



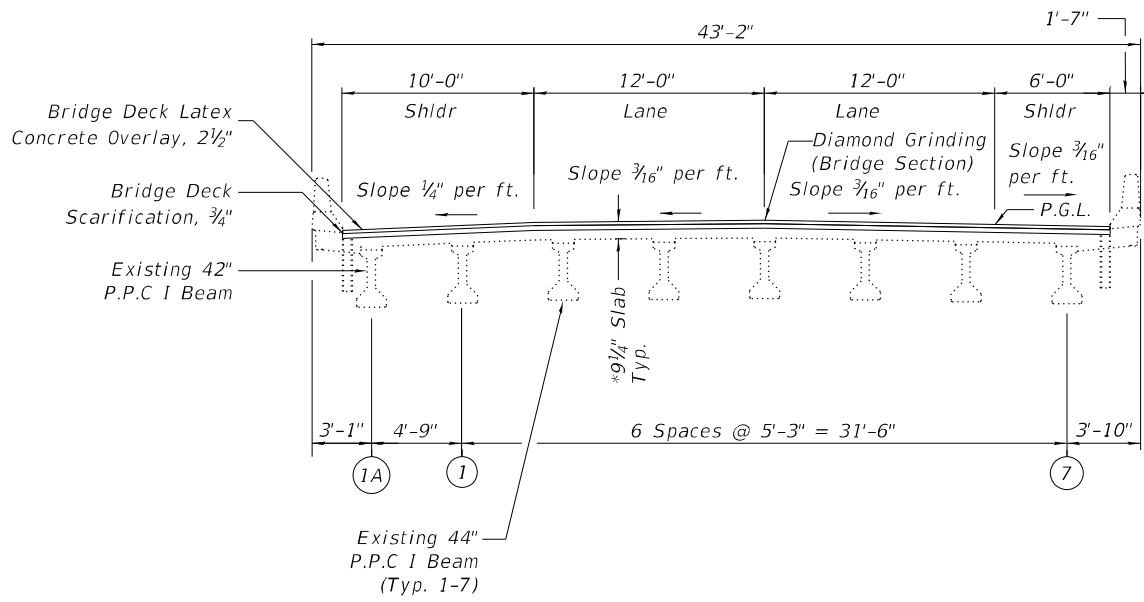
SN 010-0026 (WB)



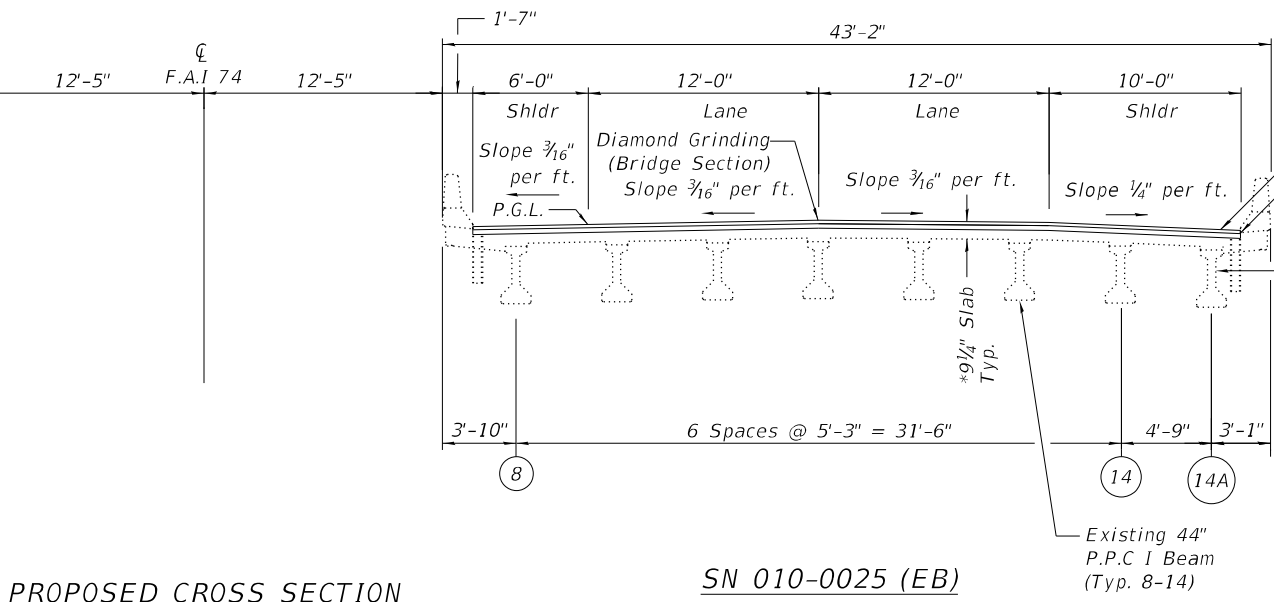
SN 010-0025 (EB)

EXISTING CROSS SECTION

(Looking East)



SN 010-0026 (WB)



SN 010-0025 (EB)

PROPOSED CROSS SECTION

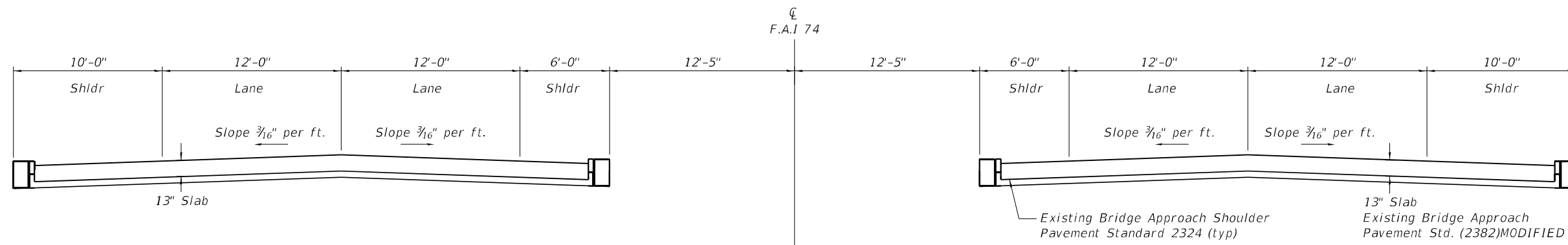
(Looking East)

* Prior to grinding

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED -
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED -
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED -
	CHECKED - SMJ	REVISED -

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 27
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\10.1.1901.PTB.193-025.D5.Various.Phase.HWWork.Order.2\Drawings\CADD_Sheets\Structure.0100025 & 0100026\0100025&26-70B78-004 - TYPICAL SECTIONS (APPRO. SLAB).dgn
 3/22/2022 3:20:16 PM

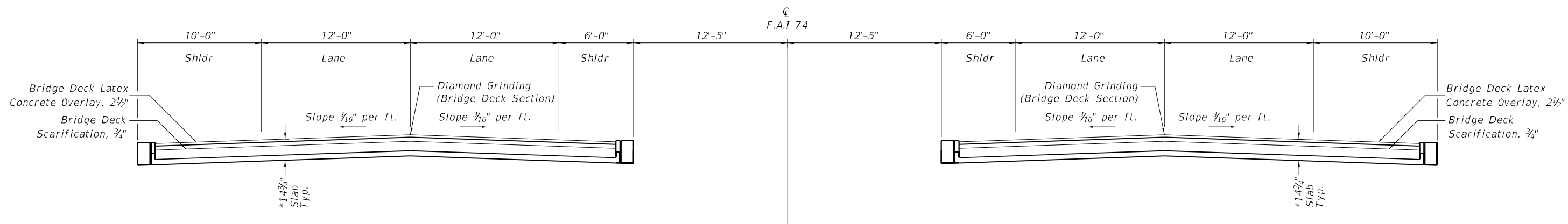


SN 010-0026 (WB)

SN 010-0025 (EB)

EXISTING CROSS SECTION

(Looking East)



SN 010-0026 (WB)

SN 010-0025 (EB)

PROPOSED CROSS SECTION

(Looking East)

*Prior to grinding

Sheet 2 of 2

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-0493
 www.prairieengineers.com
 professional design firm no. 154-005994
 © Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

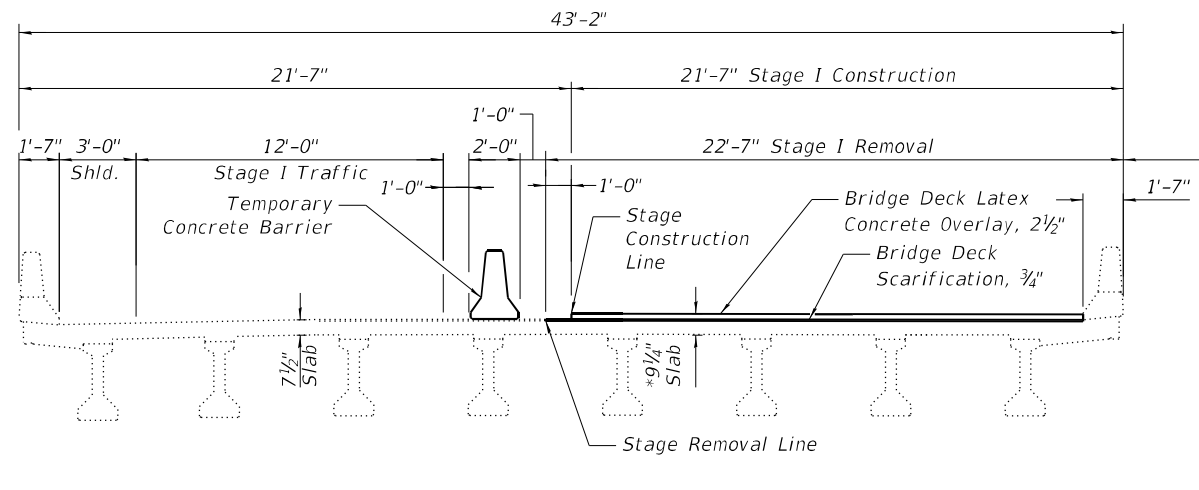
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 4 OF 25 SHEETS

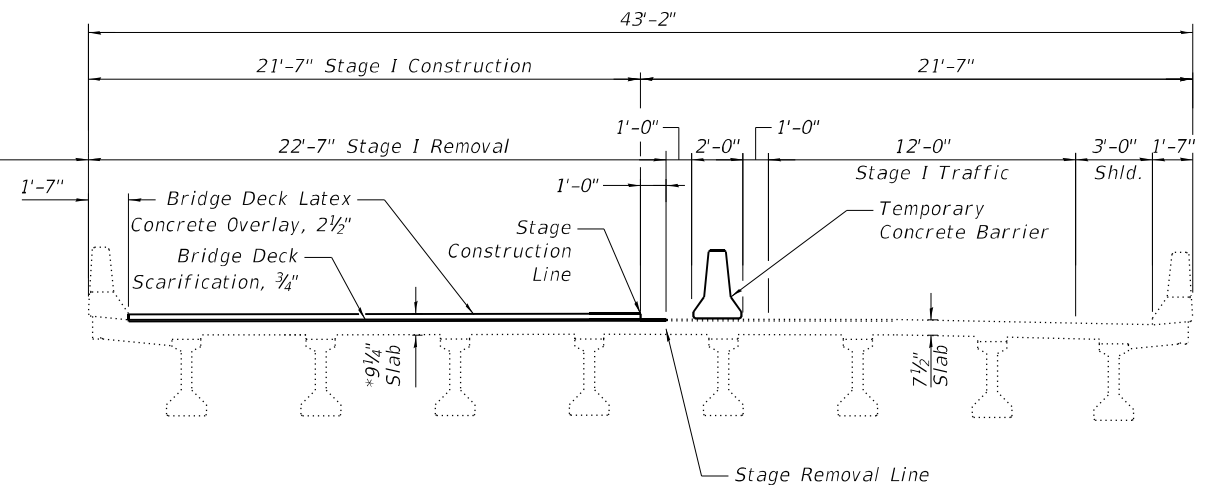
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	28
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\1011-1901_PTB_193-025_D5_Various Phase - IITWork Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-005 - STAGING.dgn
 3/22/2022 3:21:17 PM



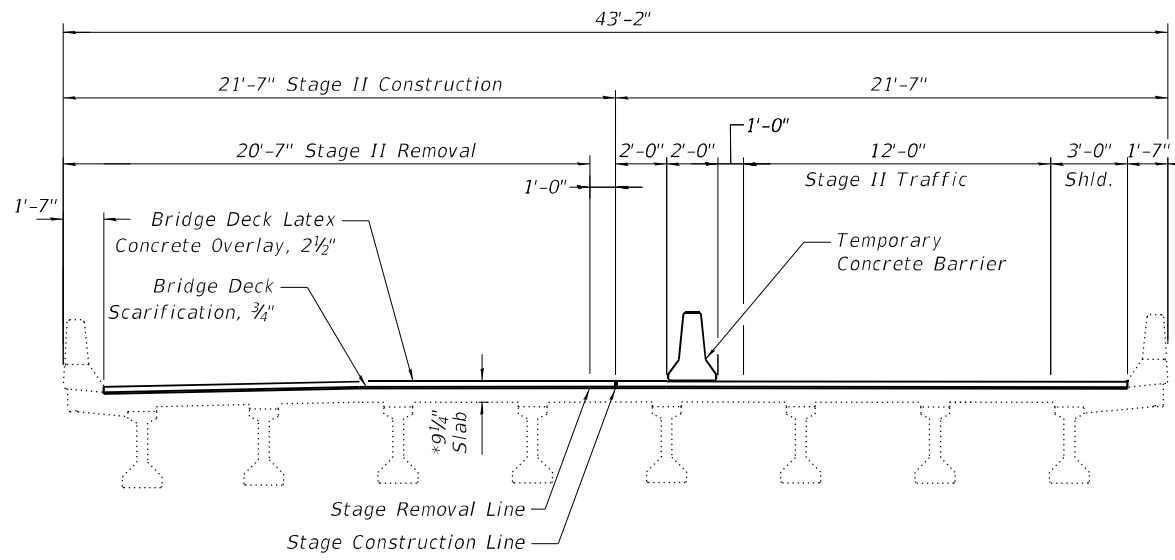
SN. 010-0026 (W.B.)

CL F.A.I. 74



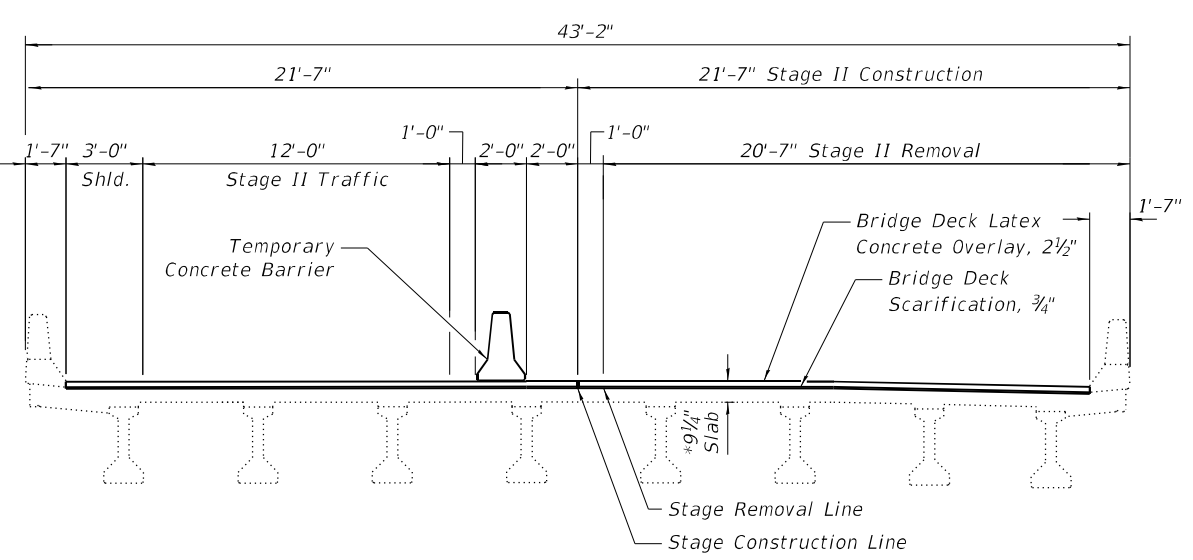
SN. 010-0025 (E.B.)

STAGE I CONSTRUCTION
 (Looking East)



SN. 010-0026 (W.B.)

CL F.A.I. 74



SN. 010-0025 (E.B.)

STAGE II CONSTRUCTION
 (Looking East)

*Prior to grinding

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-9493
 www.prairieengineers.com
 Professional design firm no. 184-005996
 ENGINEERS SURVEYORS SCIENTISTS
 © Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED -
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED -
PLOT DATE = 3/22/2022	DRAWN - JZM & JLM	REVISED -
	CHECKED - SMJ	REVISED -

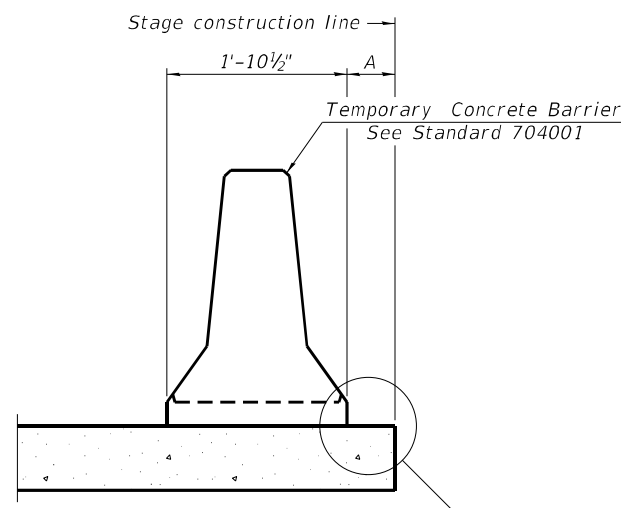
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 5 OF 25 SHEETS

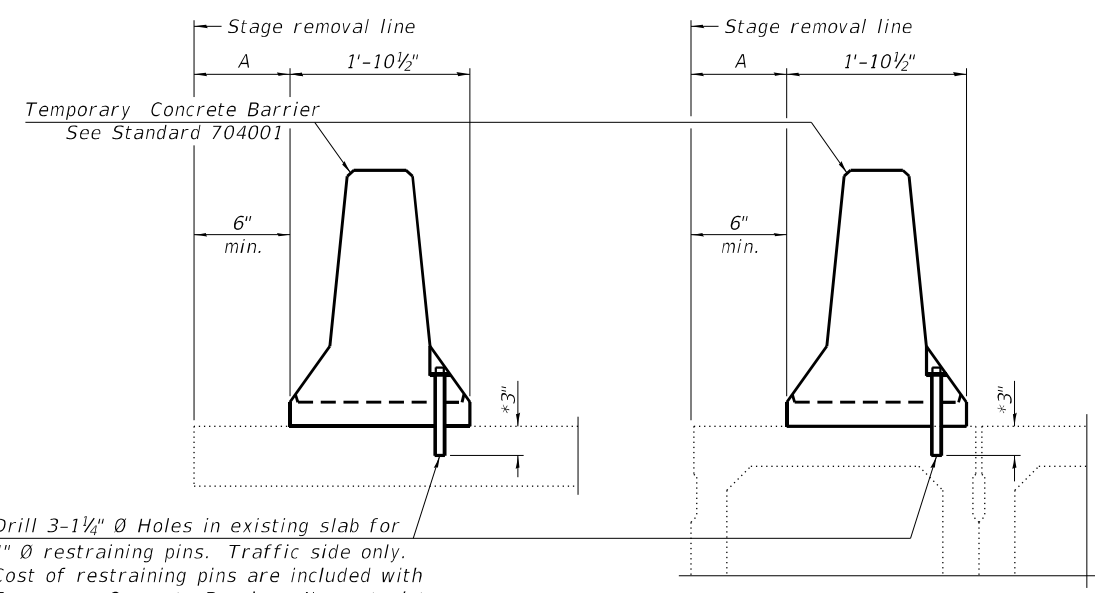
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	29
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\10.1.1901.PTB_193-025.D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-006 - Temporary Concrete Barrier.dgn
 3/22/2022 3:22:24 PM



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". See Detail I, II or III

NEW SLAB OR NEW DECK BEAM

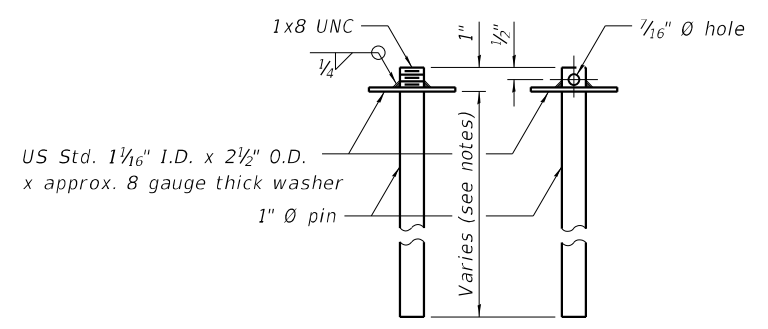


Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

EXISTING DECK BEAM

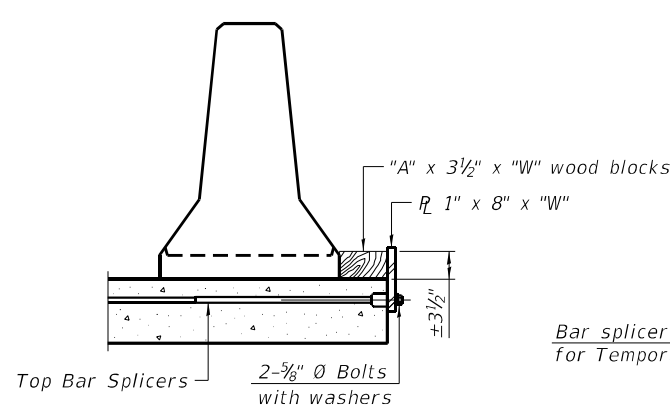
SECTIONS THRU SLAB OR DECK BEAM



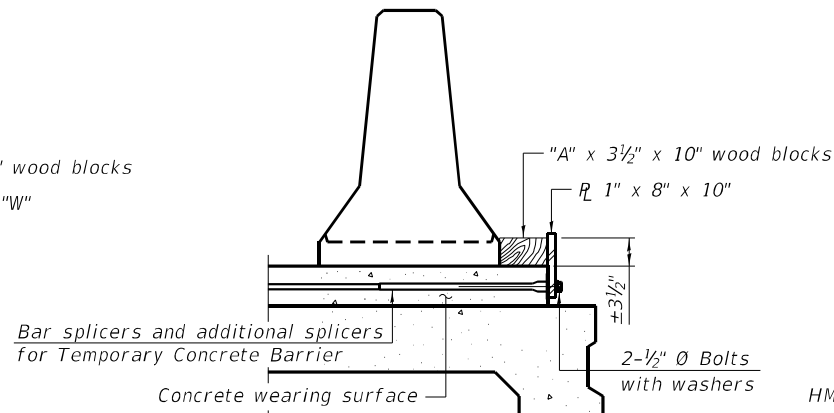
US Std. 1 1/16" I.D. x 2 1/2" O.D. x approx. 8 gauge thick washer

RESTRAINING PIN

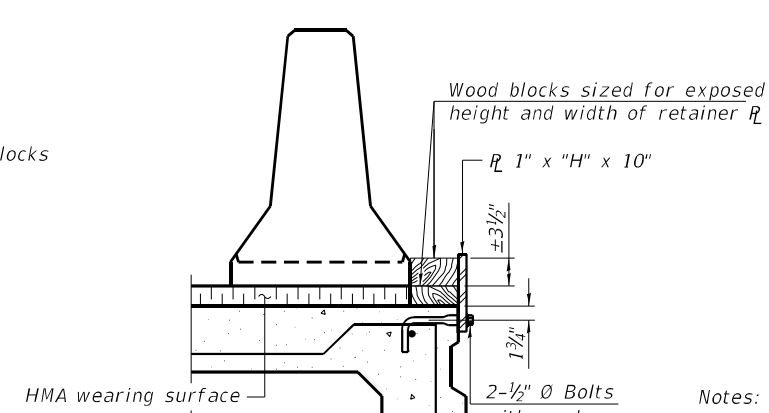
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.



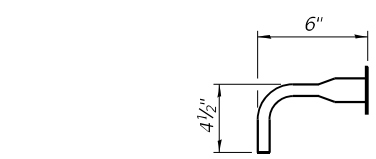
DETAIL I



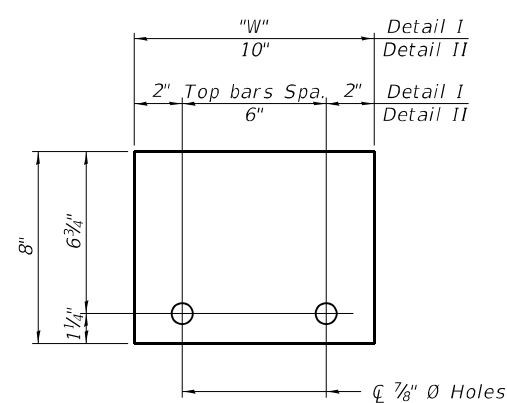
DETAIL II



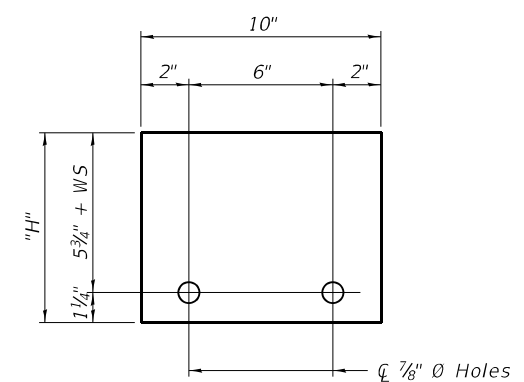
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



STEEL RETAINER R 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 C 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 1 1/2", 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

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-6493
 www.prairieengineers.com
 professional design firm no. 154-005996
 © Copyright Prairie Engineers, P.C., 2022

USER NAME =	jmasset
PLOT SCALE =	0:2.0000 "/ in.
PLOT DATE =	3/22/2022

DESIGNED -	ESN & SMJ
CHECKED -	SMJ & JZM
DRAWN -	JZM & JLM
CHECKED -	SMJ

REVISED -	---
REVISED -	---
REVISED -	---
REVISED -	---

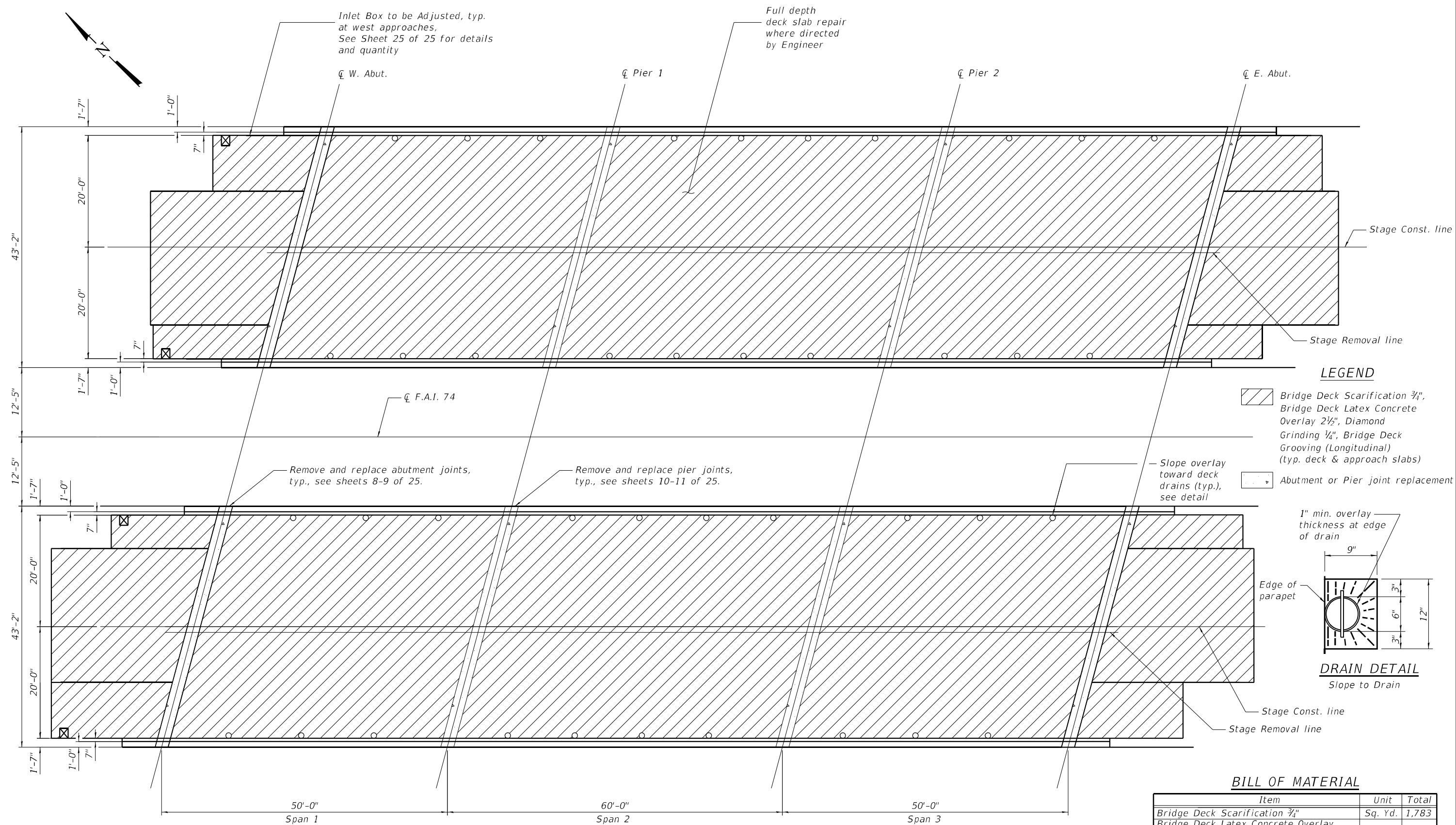
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 6 OF 25 SHEETS

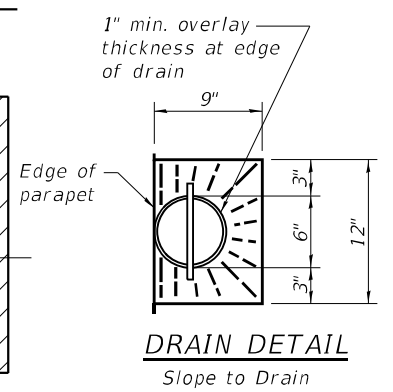
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	30
			CONTRACT NO. 70B78	
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025 D5 Various Phase -H\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-007 - DECK PLAN.dgn
 3/22/2022 3:23:27 PM



LEGEND

- Bridge Deck Scarification 3/4", Bridge Deck Latex Concrete Overlay 2 1/2", Diamond Grinding 1/4", Bridge Deck Grooving (Longitudinal) (typ. deck & approach slabs)
- Abutment or Pier joint replacement



BILL OF MATERIAL

Item	Unit	Total
Bridge Deck Scarification 3/4"	Sq. Yd.	1,783
Bridge Deck Latex Concrete Overlay, 2 1/2 Inches	Sq. Yd.	1,783
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	47
Diamond Grinding (Bridge Section)	Sq. Yd.	1,676
* Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,141
Protective Coat	Sq. Yd.	1,868

* For limits see special provisions.

Notes:
 The actual sizes and locations of deck slab repairs be determined by the Engineer and shall be documented on As-Built Plans. Full Depth Deck Slab Repair quantities have been estimated as 5% of the approach slab area and 2% of the deck area.

PLAN

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DECK PLAN
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 7 OF 25 SHEETS

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISIONS -
PLOT SCALE = 0:2,0000 "/in.	CHECKED - SMJ & JZM	REVISIONS -
PLOT DATE = 3/22/2022	DRAWN - JZM & JLM	REVISIONS -
	CHECKED - SMJ	REVISIONS -

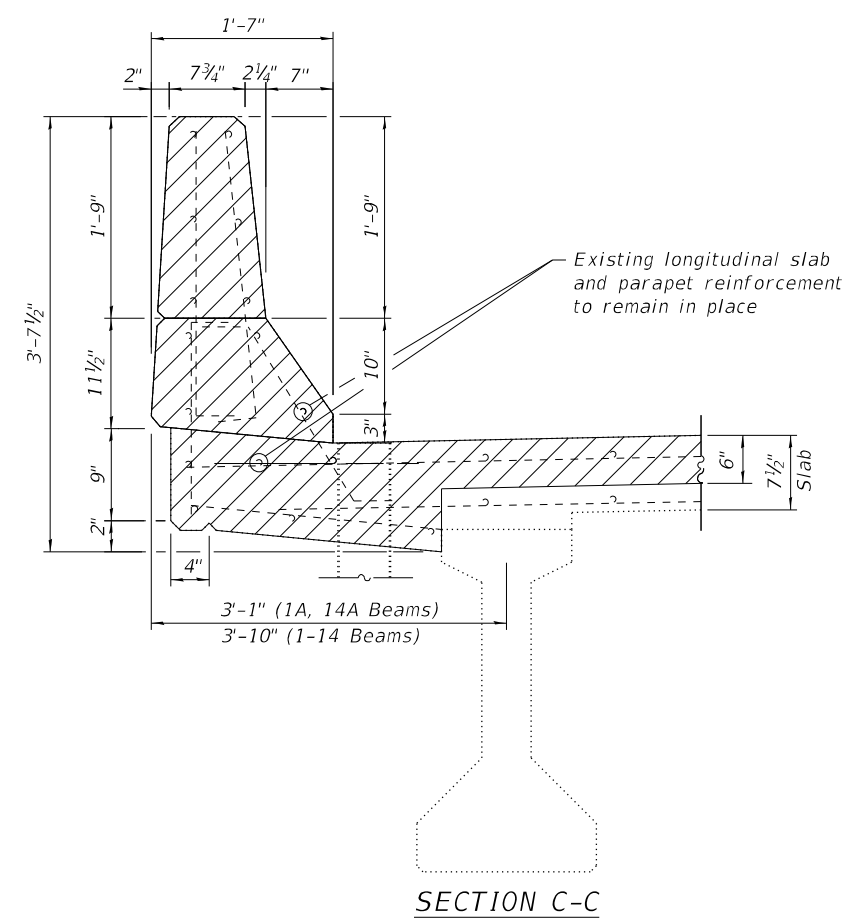
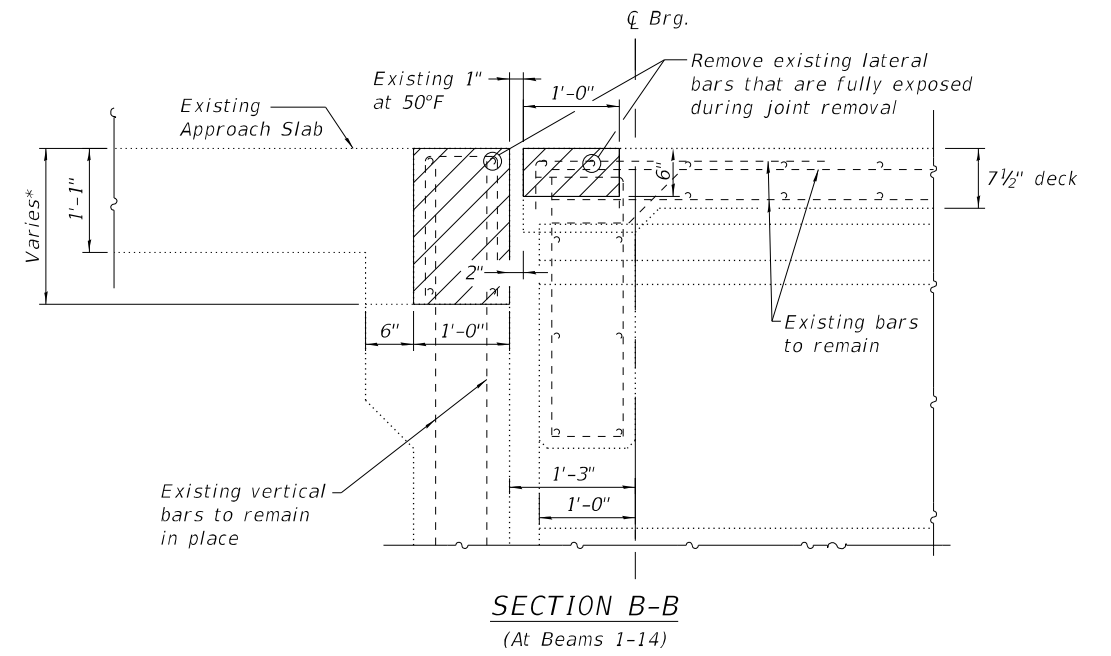
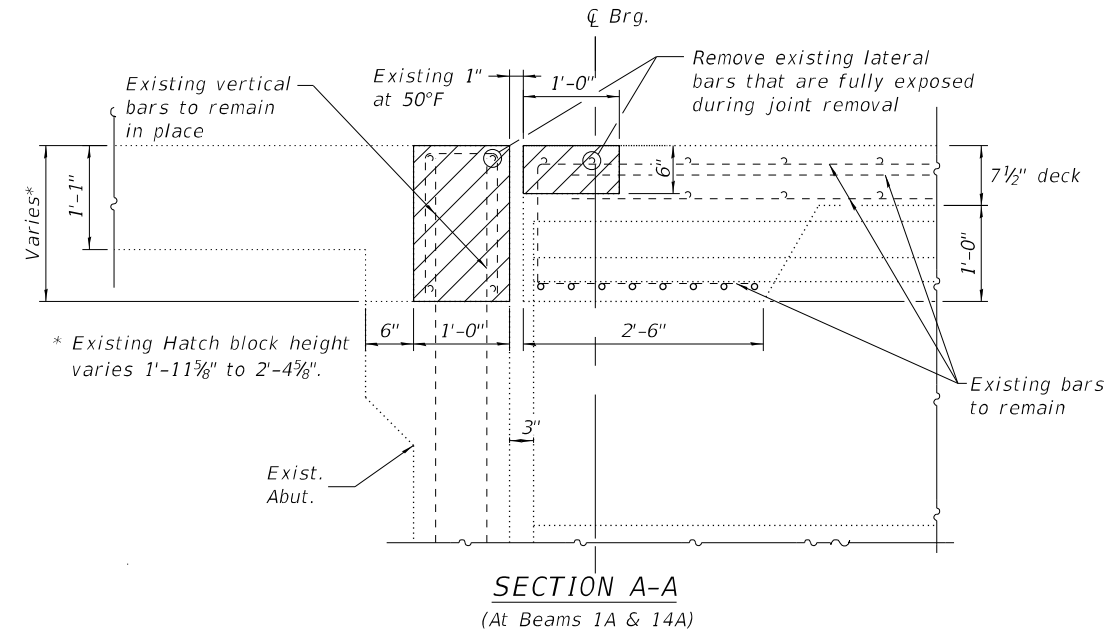
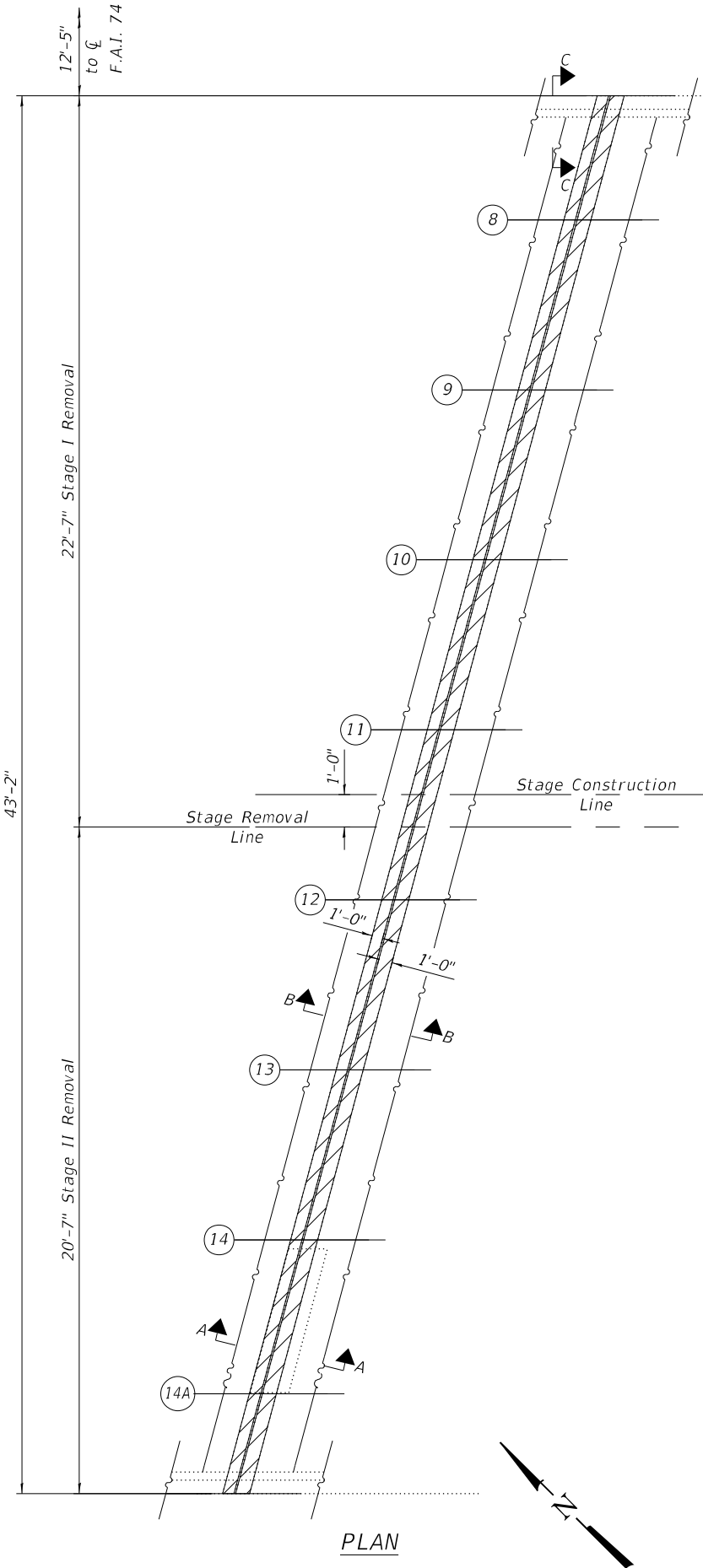
F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 31
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-9493
 www.prairieengineers.com
 Professional design firm no. 184-005996
 Copyright Prairie Engineers, P.C. 2022

BILL OF MATERIAL

(For Both Bridges)

Item	Unit	Total
Concrete Removal	Cu. Yd.	18.1



LEGEND

Concrete Removal

Notes:
 S.N. 010-0025 shown, 010-0026 similar.
 West Abutment shown, East Abutment similar.
 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 contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025 D5 Various Phase III\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-008 - ABUT. JOINT REPLACEMENT SHT 1.dgn
 4/19/2022 2:11:18 PM

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

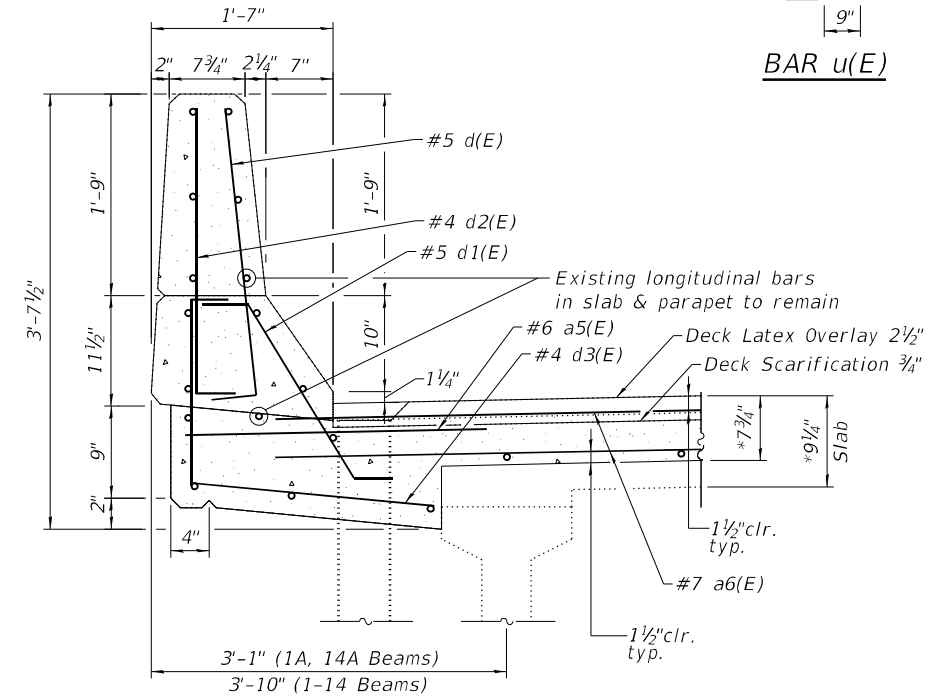
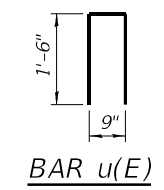
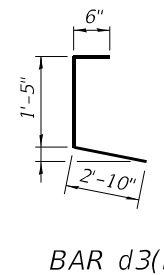
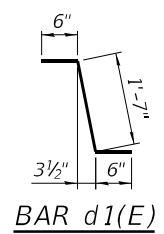
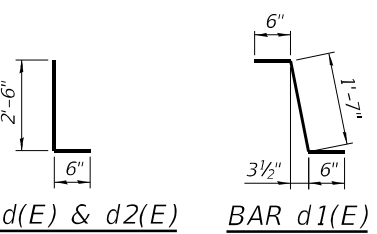
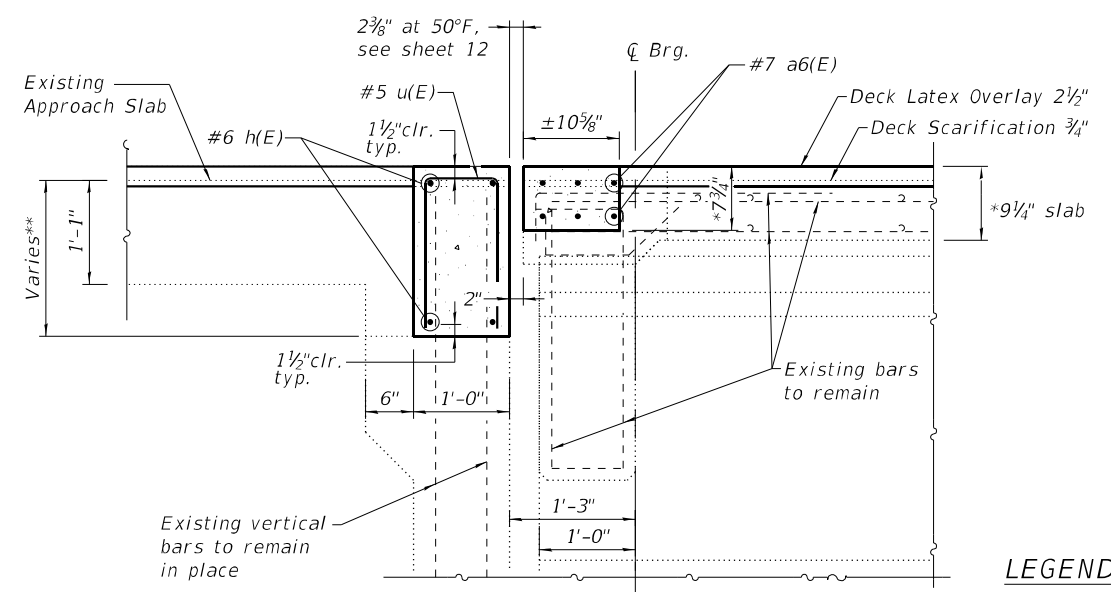
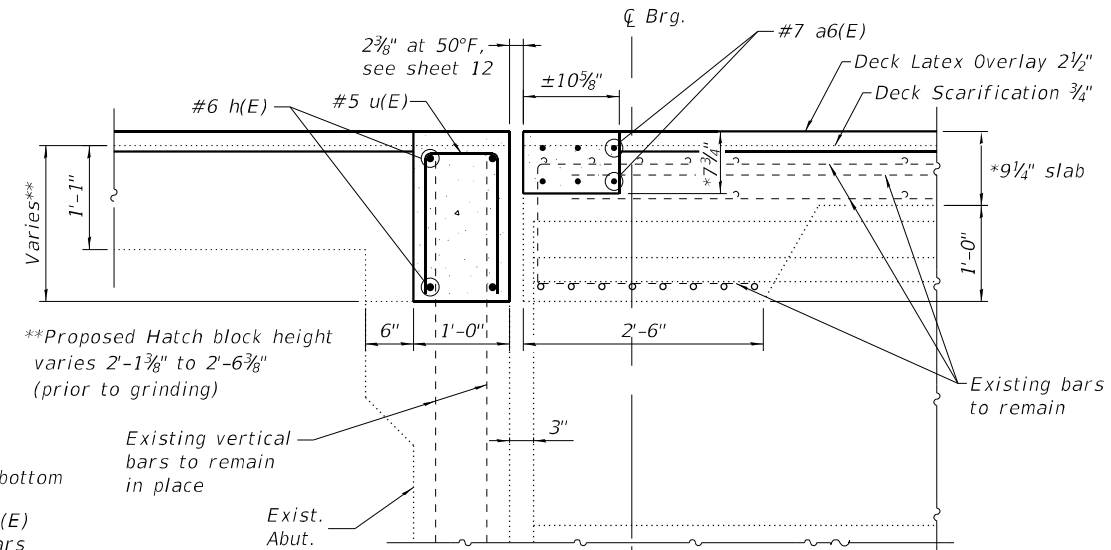
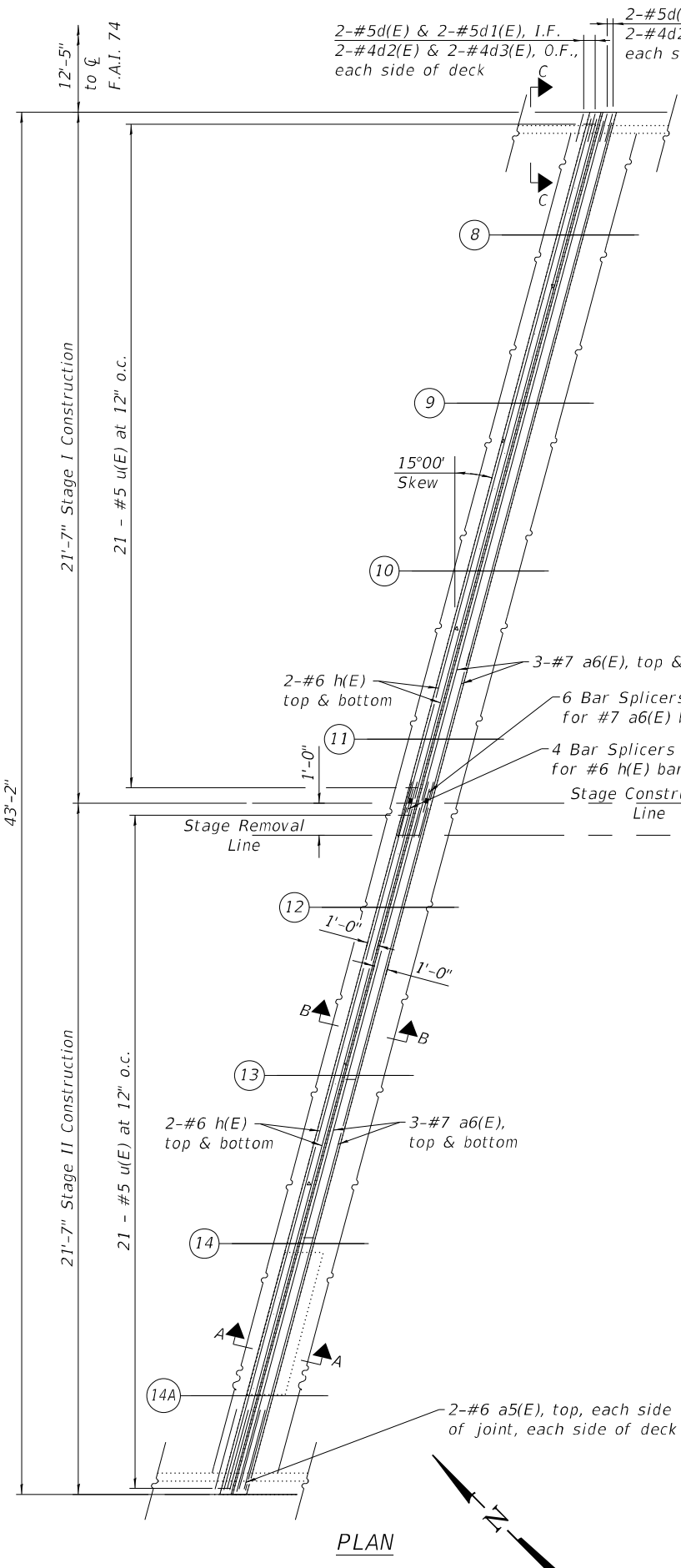
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED -
PLOT SCALE = 0:2,0000 "/ in.	CHECKED - SMJ & JZM	REVISED -
PLOT DATE = 4/19/2022	DRAWN - AKN & JLM	REVISED -
	CHECKED - SMJ	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT JOINT REPLACEMENT DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 32
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\1011.1901.PTB_193-025 D5 Various Phase III\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-009 - ABUT. JOINT REPLACEMENT SH1 2.dgn
 4/19/2022 2:13:00 PM



BILL OF MATERIAL
 (For Both Bridges)

Bar	No.	Size	Length	Shape	
a5(E)	32	#6	5'-0"	—	
a6(E)	48	#7	21'-10"	—	
d(E)	32	#5	3'-0"	—	
d1(E)	32	#5	2'-7"	—	
d2(E)	32	#4	3'-0"	—	
d3(E)	32	#4	4'-9"	—	
h(E)	32	#6	22'-0"	—	
u(E)	168	#5	3'-9"	—	
Reinforcement Bars, Epoxy Coated				Lbs.	4,450
Concrete Superstructure				Cu. Yds.	19.9

LEGEND

Concrete Superstructure

Notes:

S.N. 010-0025 shown, 010-0026 similar

West Abutment shown, East Abutment similar.

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 contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

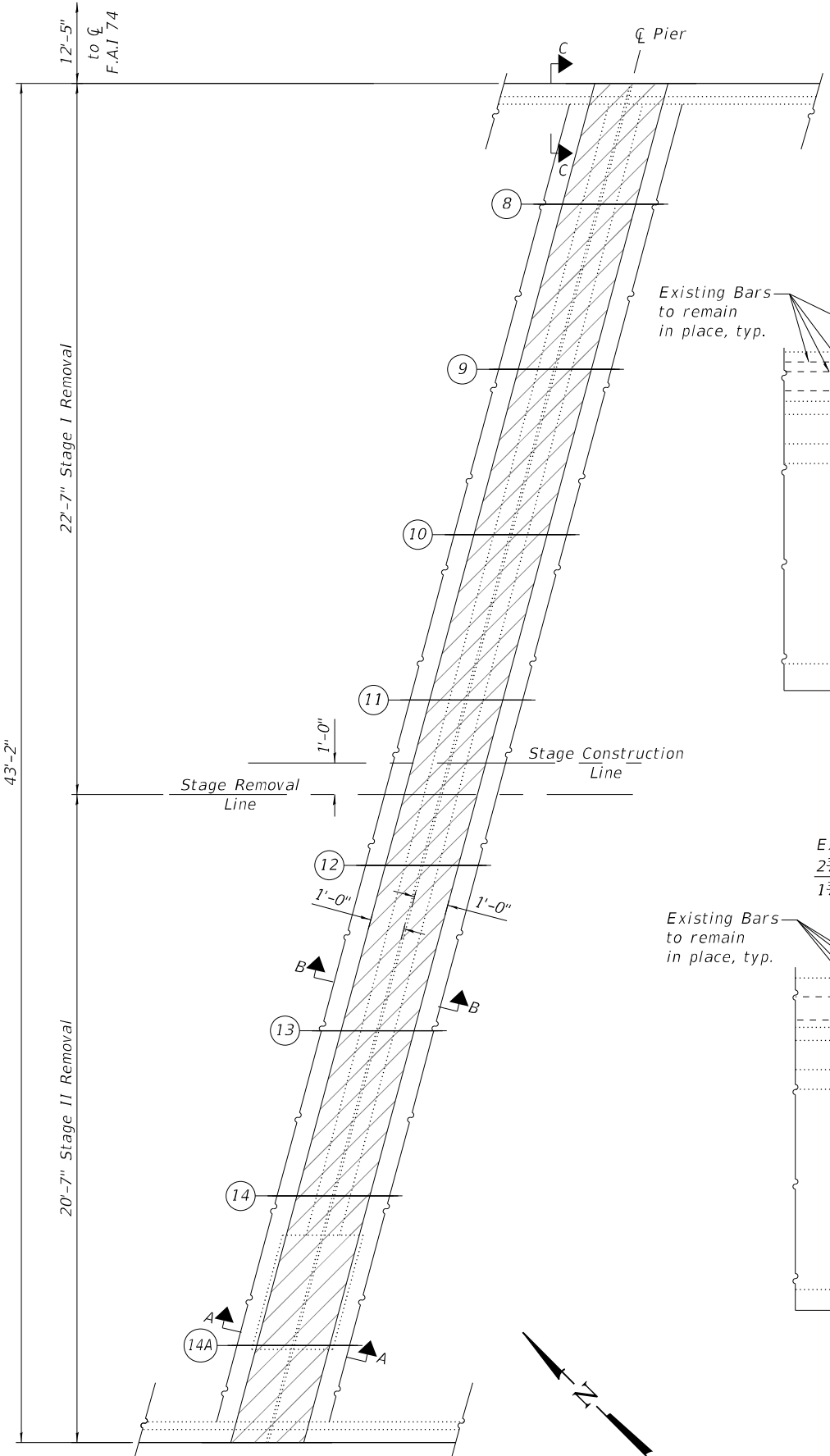
Reinforcement Bars Designated (E) shall be Epoxy Coated.

For locations of Abutment Joint Replacements, see sheet 7 of 25.

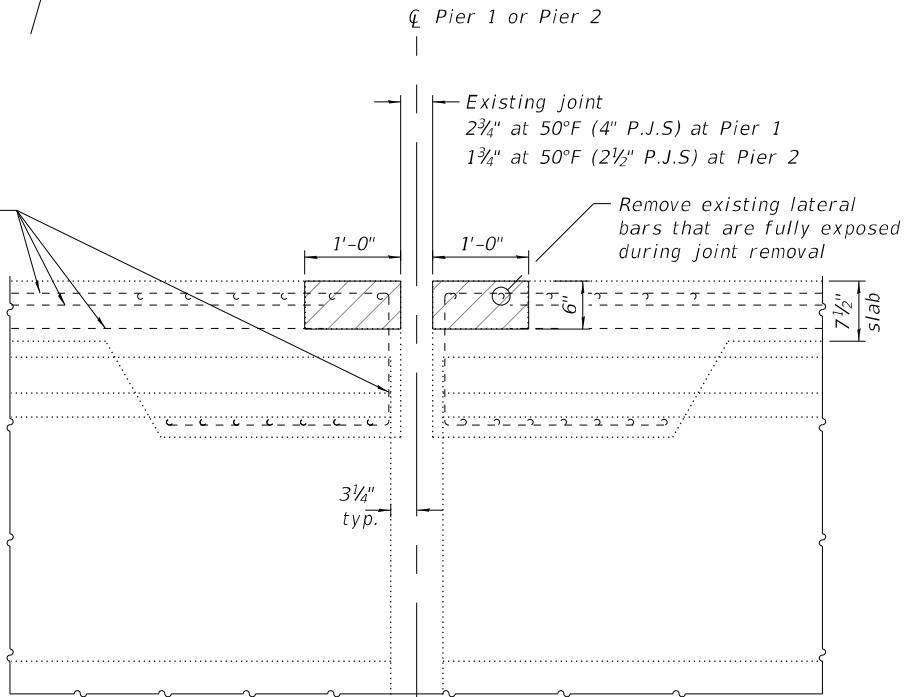
BILL OF MATERIAL

(For Both Bridges)

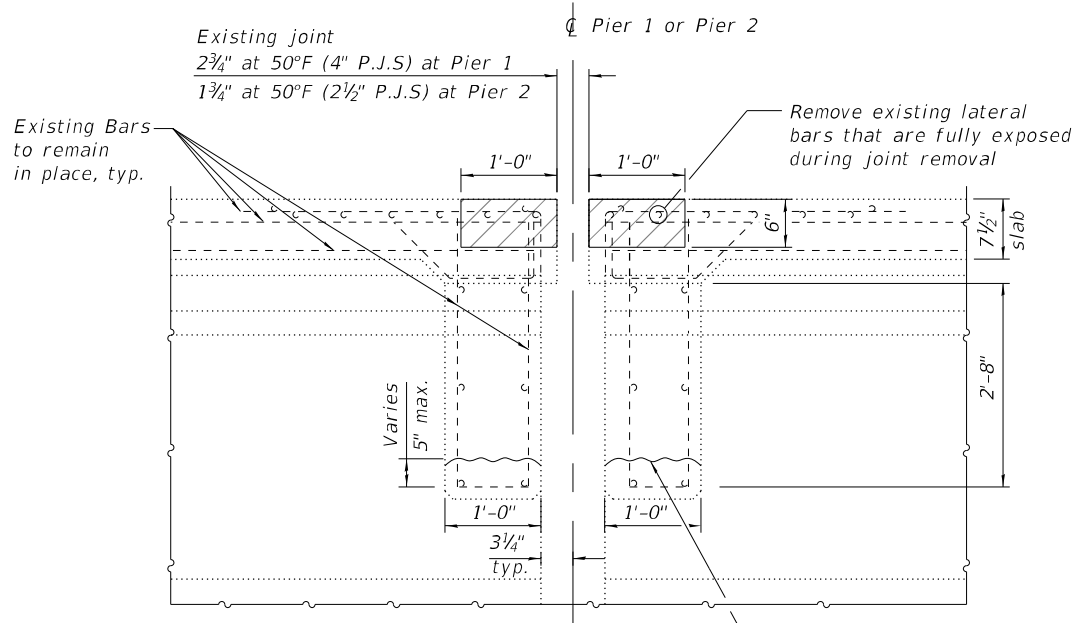
Item	Unit	Total
Concrete Removal	Cu. Yd.	7.6



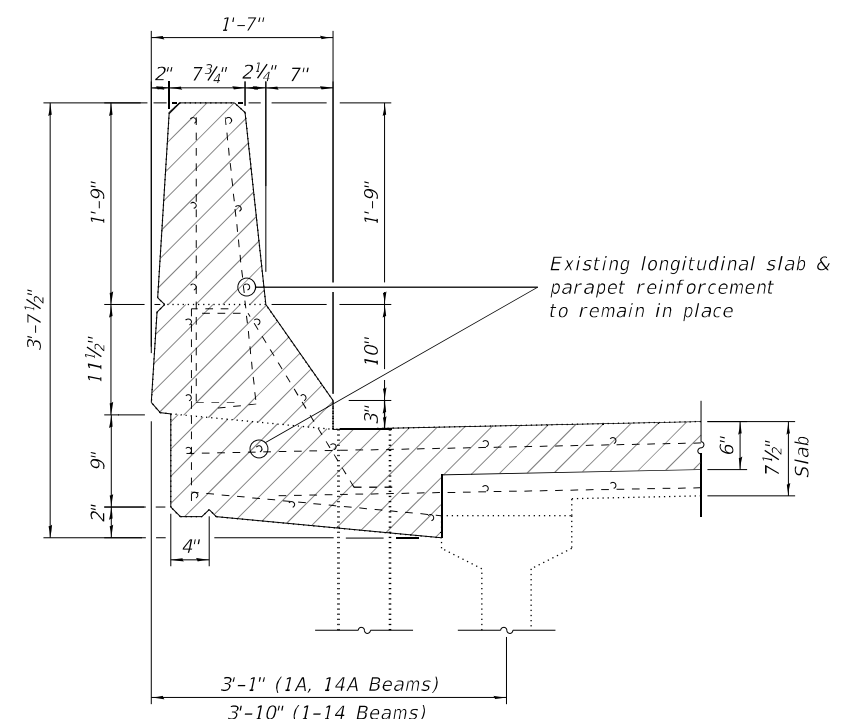
PLAN



SECTION A-A
(At Beams 1A & 14A)



SECTION B-B
(At Beams 1-14)



SECTION C-C

LEGEND

Concrete Removal

Notes:

S.N. 010-0025 shown, 010-0026 similar
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 contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

Sheet 1 of 2

MODEL: Default
FILE NAME: I:\jobs\2019\10.1.1901.PTB_193-025.D5_Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-010 - PIER JOINT REPLACEMENT_SHT 1.dgn
3/22/2022 3:27:01 PM

Prairie Engineers, P.C.
22484 Grosenbach Road
Washington, IL 61571
(217) 665-0403
www.prairieengineers.com
Professional Design Firm No. 154-005906
Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED -
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED -
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED -
	CHECKED - SMJ	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER JOINT REPLACEMENT DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B

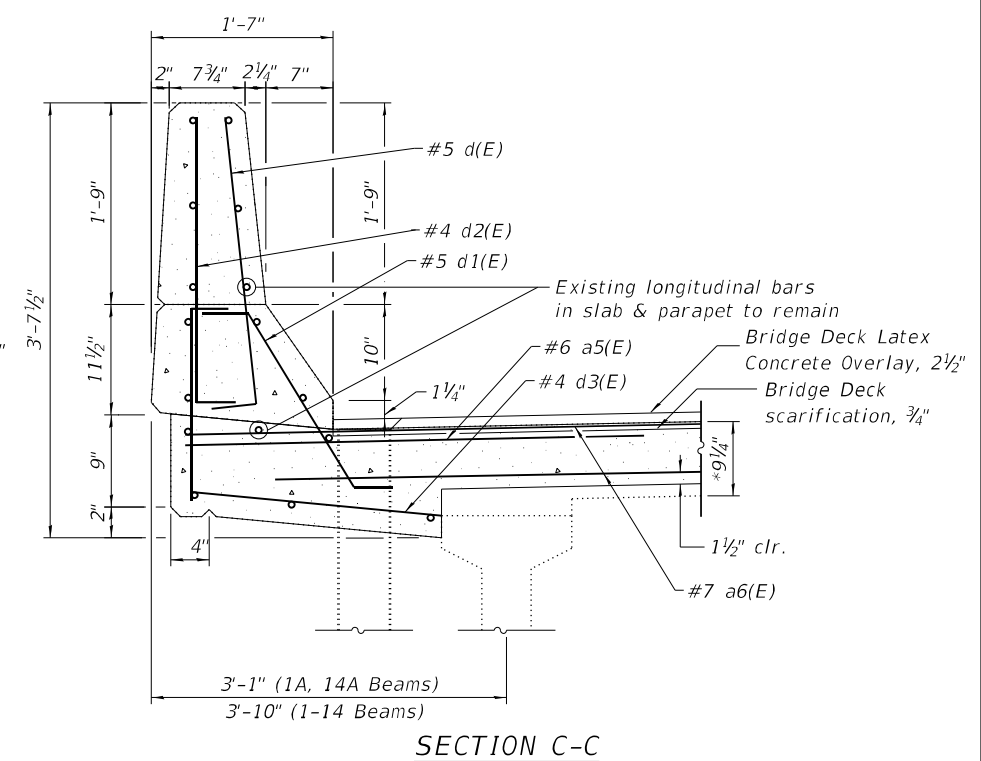
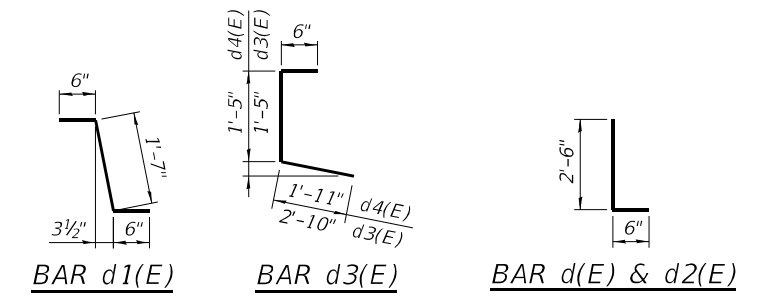
SHEET 10 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	34
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

(For Both Bridges)

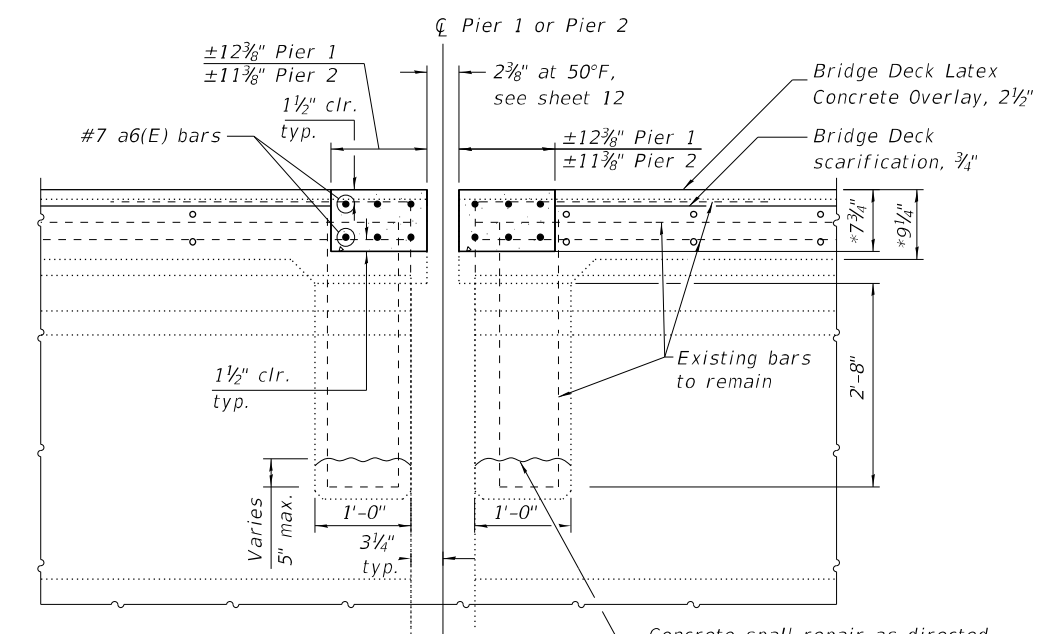
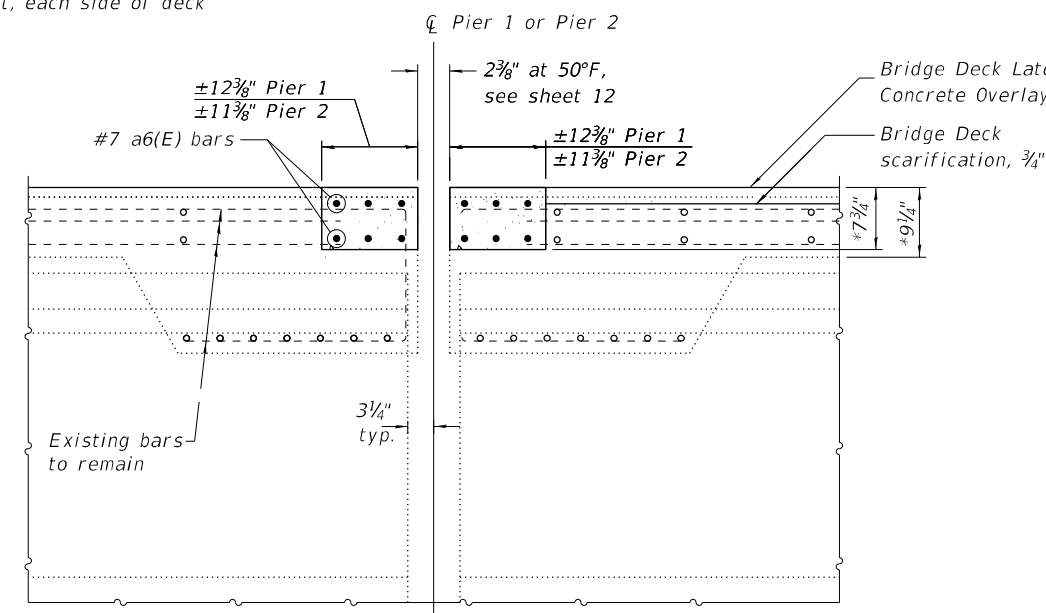
Bar	No.	Size	Length	Shape	
a5(E)	32	#6	5'-0"	—	
a6(E)	96	#7	21'-10"	—	
d(E)	32	#5	3'-0"	┌	
d1(E)	32	#5	2'-7"	┌	
d2(E)	32	#4	3'-0"	┌	
d3(E)	32	#4	4'-9"	┌	
Reinforcement Bars, Epoxy Coated				Lbs.	4,880
Concrete Superstructure				Cu. Yds.	9.4



Notes:

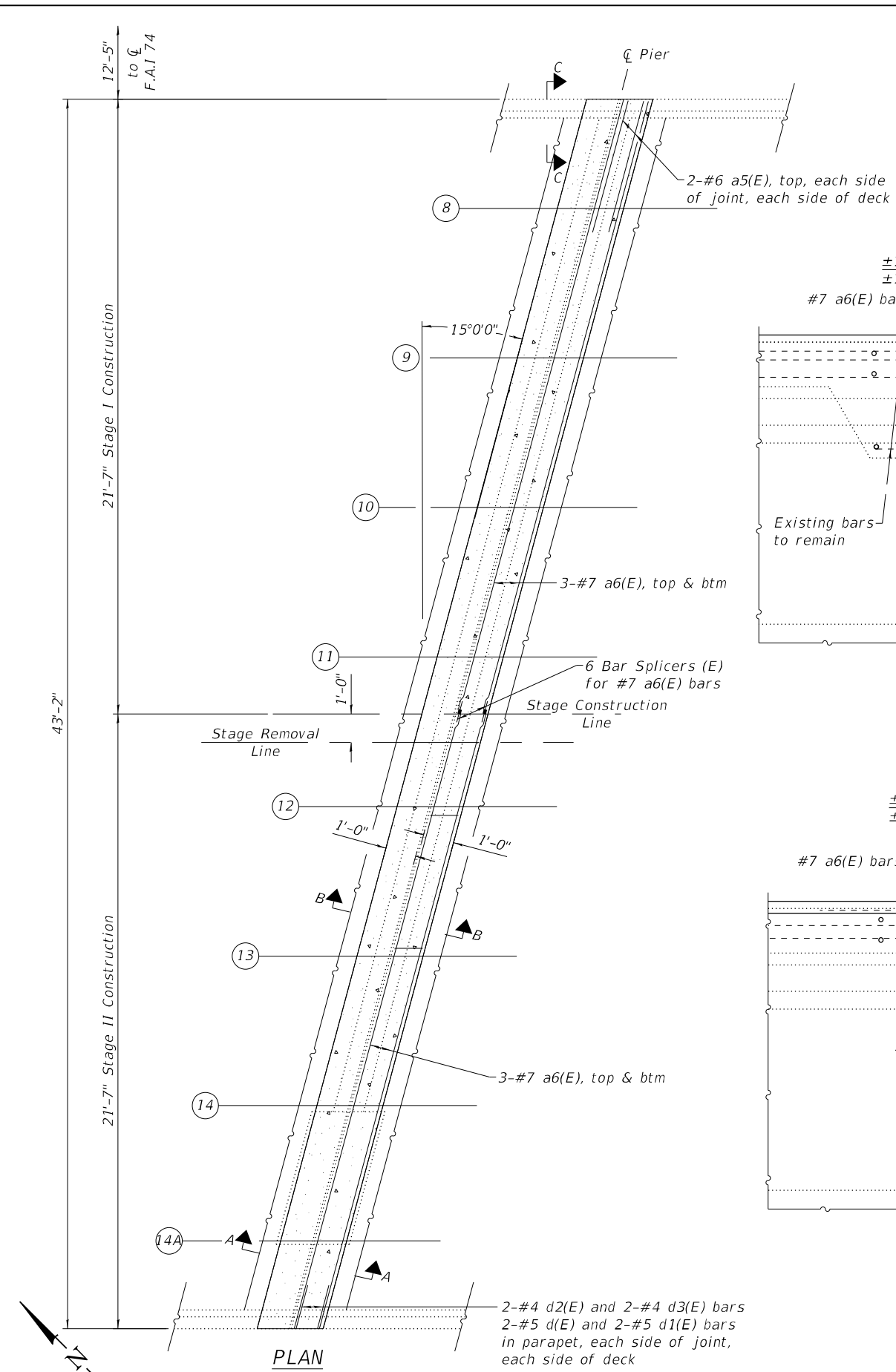
- S.N. 010-0025 shown, 010-0026 similar
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- The contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.
- Reinforcement Bars Designated (E) shall be Epoxy Coated.
- For locations of Pier Joint Replacements, see sheet 7 of 25.
- Adjust replacement Concrete Superstructure dimensions at joint for corresponding joint rail.

Sheet 2 of 2



LEGEND

Concrete Superstructure



Notes:

- Reinf. shown for one side of the joint, similar for the opposite side

MODEL: Default
FILE NAME: I:\jobs\2019\10.1.1901.PTB_193-025.D5_Various Phase_HHW\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-011 - PIER JOINT REPLACEMENT_SHT 2.dgn
3/22/2022 3:28:08 PM

Prairie Engineers, P.C.
22484 Grosenbach Road
Washington, IL 61571
(217) 665-0403
www.prairieengineers.com
Professional Design Firm No. 154-005906
© Copyright Prairie Engineers, P.C. 2022

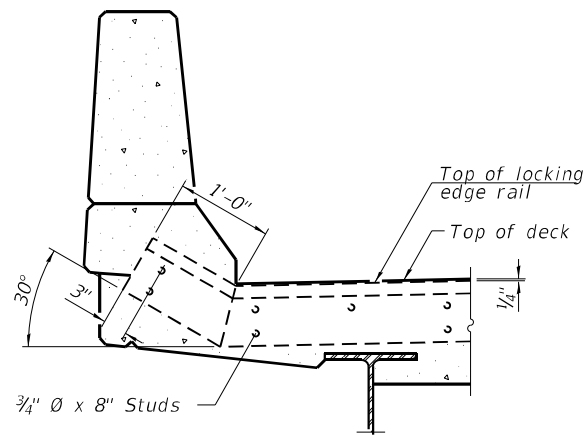
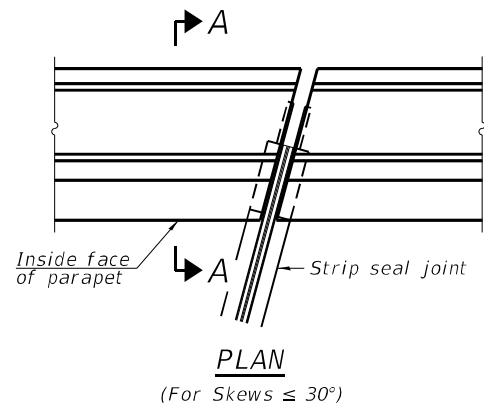
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISIONS -
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISIONS -
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISIONS -
	CHECKED - SMJ	REVISIONS -

DESIGNED - ESN & SMJ	REVISIONS -
CHECKED - SMJ & JZM	REVISIONS -
DRAWN - AKN & JLM	REVISIONS -
CHECKED - SMJ	REVISIONS -

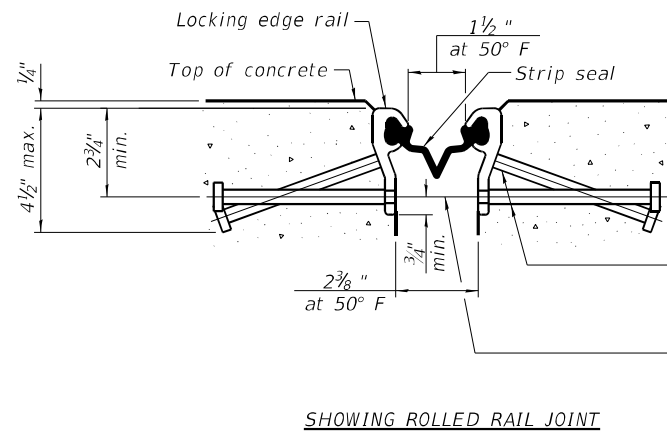
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER JOINT REPLACEMENT DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 35
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				



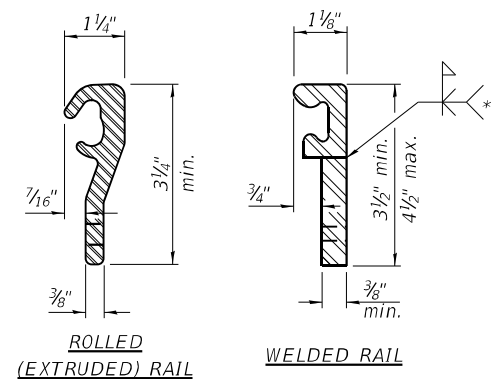
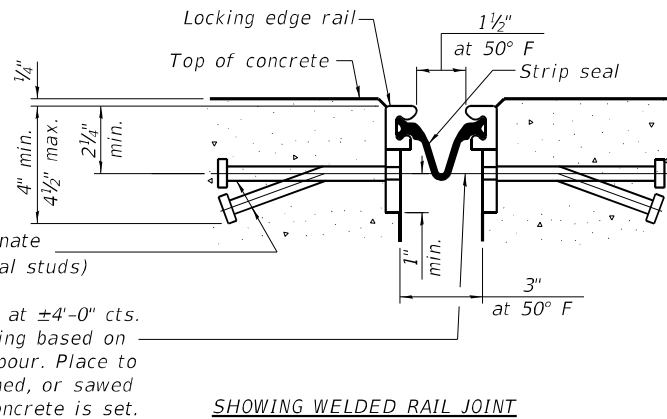
SECTION A-A



* $\frac{3}{8}$ " ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 $\frac{3}{8}$ " ϕ threaded rods in $\frac{1}{16}$ " 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.

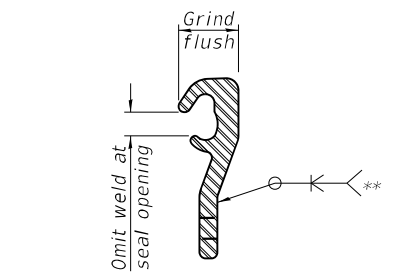
SECTION A-A

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



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	348

Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". 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 $4\frac{1}{2}$ " 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 $\frac{3}{16}$ " 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.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 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.
 The strip seal shall remain continuous through the slab under the concrete median barrier.

MODEL: Default
 FILE NAME: I:\jobs\2019\1011.1901.PTB.193-025.D5.Variou Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure.0100025 & 0100026\0100025&26-70B78-012 - Preformed Joint Strip Seal.dgn
 3/22/2022 3:29:09 PM

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-0403
 www.prairieengineers.com
 professional design firm no. 154-005906
 Copyright Prairie Engineers, P.C. 2022

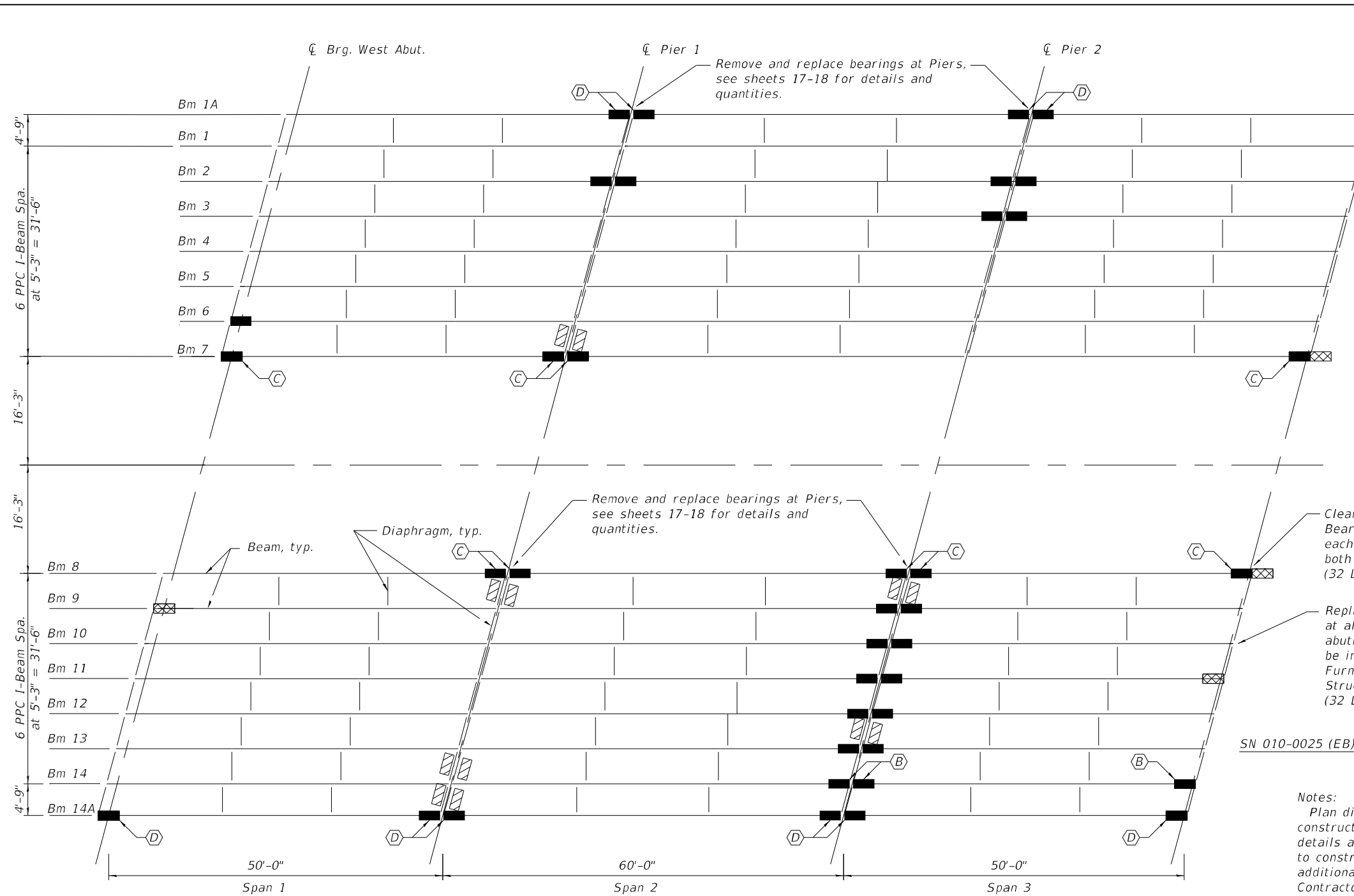
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 12 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	36
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

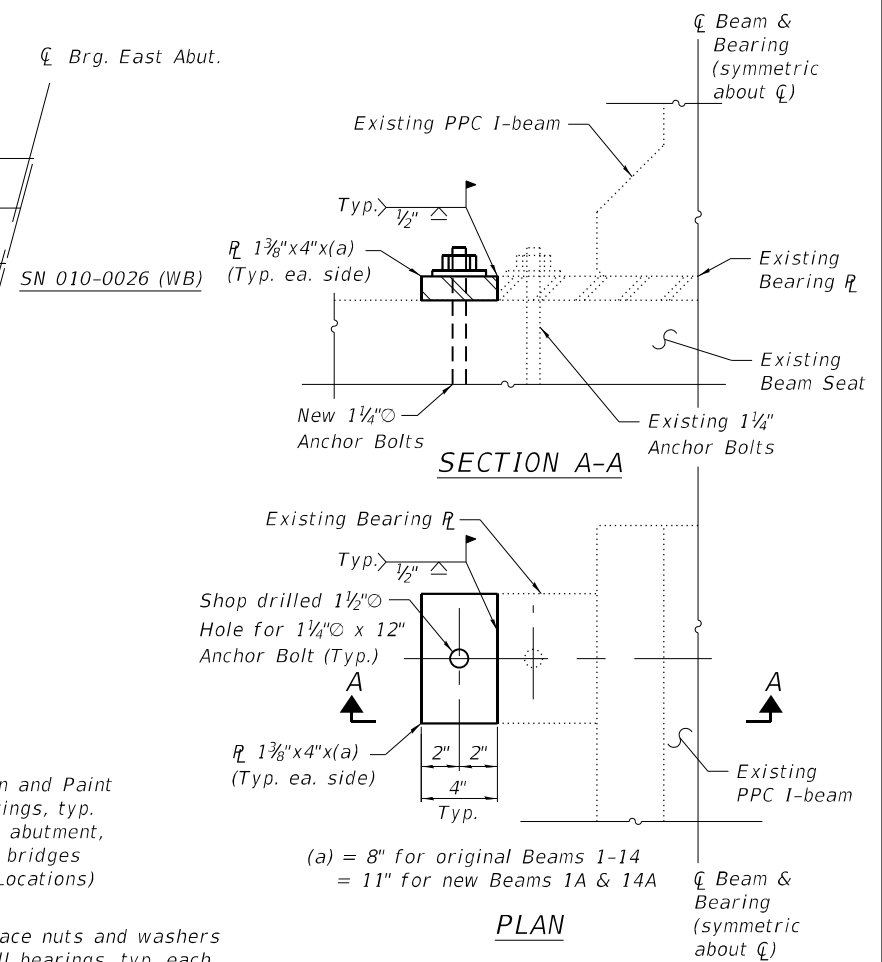


FRAMING PLAN

LEGEND

- Repair Spall in Beam End with Fiber Wrap and Acrylic Coating, see Sheets 14-16 of 25. Use Repair A at all unlabeled repair areas.
- *Repair Spall in Bot. of End Diaphragm with Structural Repair of Concrete (Depth ≤ 5"), see Sheets 10-11 of 25. (12 Locations)
- Repair anchor bolts, see detail this Sheet. (4 Locations)
- Repair type. See Sheets 14-16 of 25.

* Repair areas are estimated as the full diaphragm thickness for the full length of each bay. Actual extent of repair shall be determined by the Engineer and shall be documented on As-Built plans.



ANCHOR BOLT REPAIR DETAIL

Work to be included in the cost of Furnishing & Erecting Structural Steel and Anchor Bolts 1/4"

Notes:

- 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.
- The existing concrete surface shall be cleaned and prepared in accordance with the Special Provisions.
- See Special Provision for "FRP Strengthening for PPC I-Beam Repairs".
- See Special Provision for "Precast Prestressed I-Beam Repairs".
- Acrylic Coating shall be placed over the Fiber Wrap repairs. Two coats shall be applied.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	54.8
Cleaning & Painting Bearings	Each	32
Furnishing and Erecting Structural Steel	Pound	160
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	319
Fiber Wrap	Sq. Ft.	852
Acrylic Coating	Sq. Yd.	95
Anchor Bolts 1/4"	Each	8

MODEL: Default
FILE NAME: I:\jobs\2019\1011.1901.PTB_193-025 D5 Various Phase II\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-013 - FRAMING PLAN.dgn
3/22/2022 3:30:09 PM

Prairie Engineers, P.C.
22484 Grosenbach Road
Washington, IL 61571
(217) 665-0403
www.prairieengineers.com
Professional Design Firm No. 154-005906
Copyright Prairie Engineers, P.C. 2022

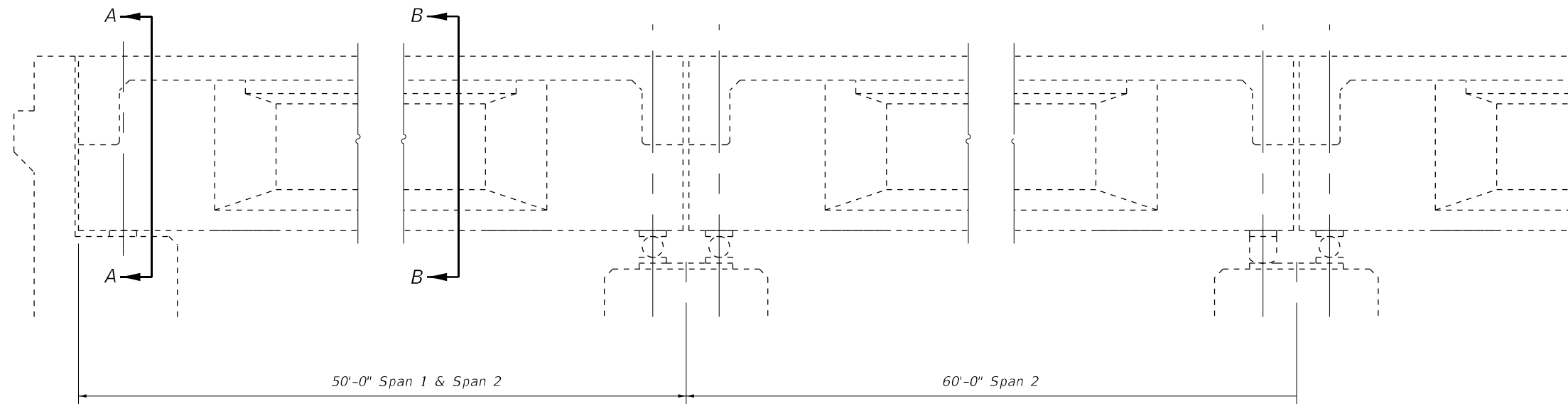
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

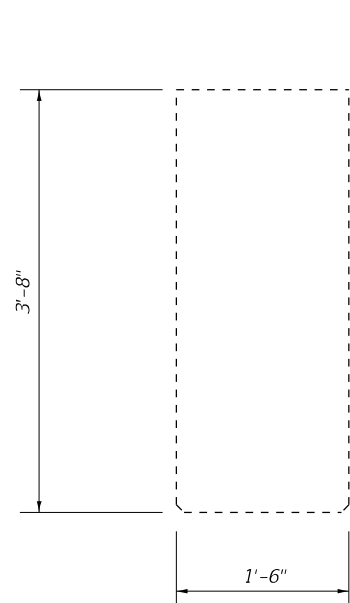
FRAMING PLAN
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 13 OF 25 SHEETS

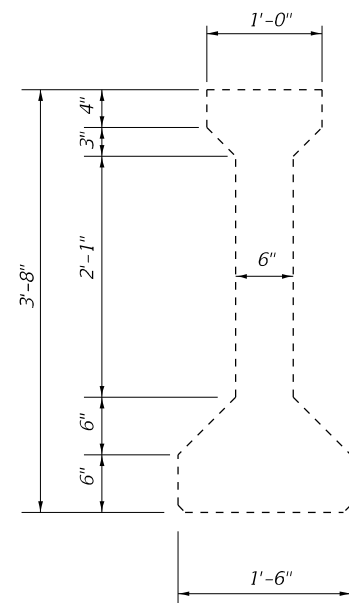
F.A.I. RTE. = 74	SECTION = (10-6B)BR-1	COUNTY = CHAMPAIGN	TOTAL SHEETS = 52	SHEET NO. = 37
			CONTRACT NO. 70B78	
ILLINOIS FED. AID PROJECT				



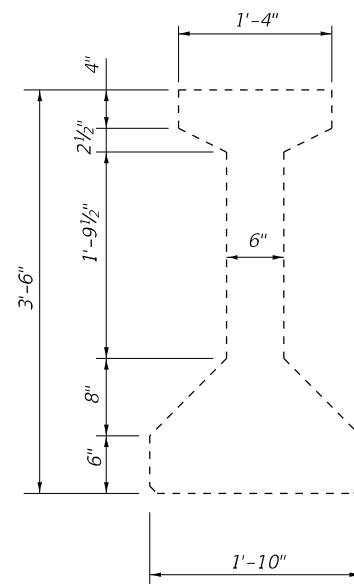
TYPICAL PART LONGITUDINAL SECTION



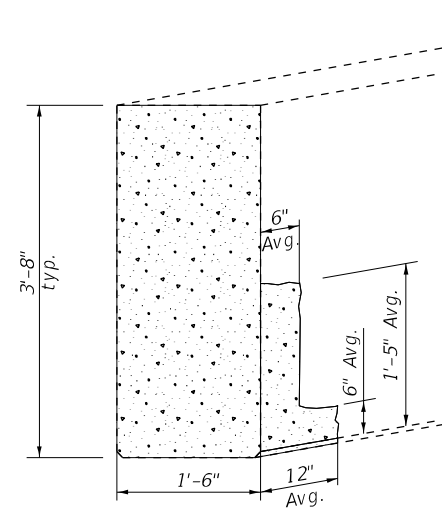
SECTION A-A
1959 Beams



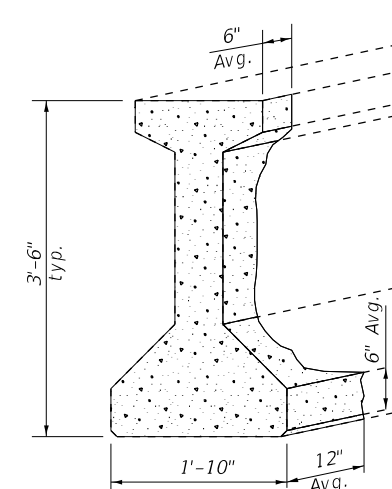
SECTION B-B
1959 Beams



CROSS-SECTION
Outside Beams, 1993 Construction



TYPICAL DAMAGE AT BEAM ENDS
1959 Beams



TYPICAL DAMAGE AT BEAM ENDS
1993 Beams

MODEL: Default
 FILE NAME: I:\jobs\2019\1011-1901 PTB 193-025 D5 Various Phase III\Work Order 2\Drawings\CADD_Sheets\Structure 0100025 & 0100026\0100025&26-70B78-014 - Beam Repair.dgn
 3/22/2022 3:31:06 PM

Prairie Engineers, P.C.
 22484 Groszbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 professional design firm no. 154-005996
 Copyright Prairie Engineers, P.C. 2022

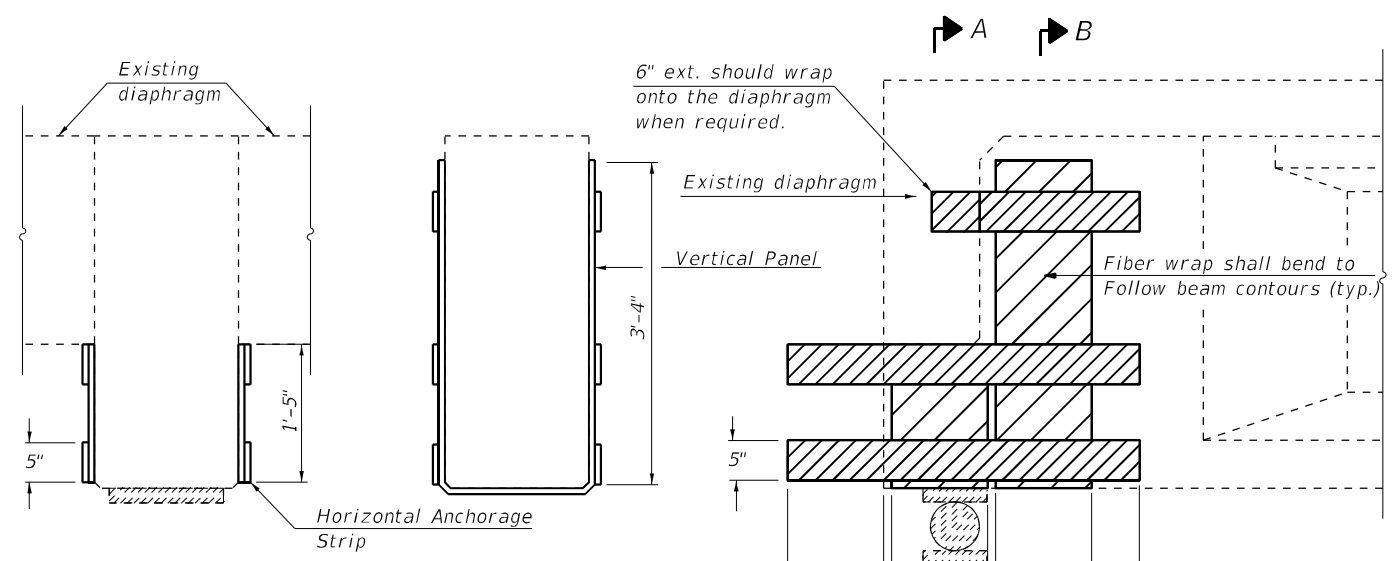
USER NAME = jmmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM REPAIR DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

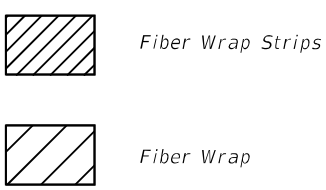
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	38
CONTRACT NO. 70B78				
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
 FILE NAME: I:\jobs\2019\1011\1901 PTB 193-025 D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-015 - Beam Repair.dgn
 3/22/2022 3:32:20 PM



SECTION A-A
Showing area at Bearing

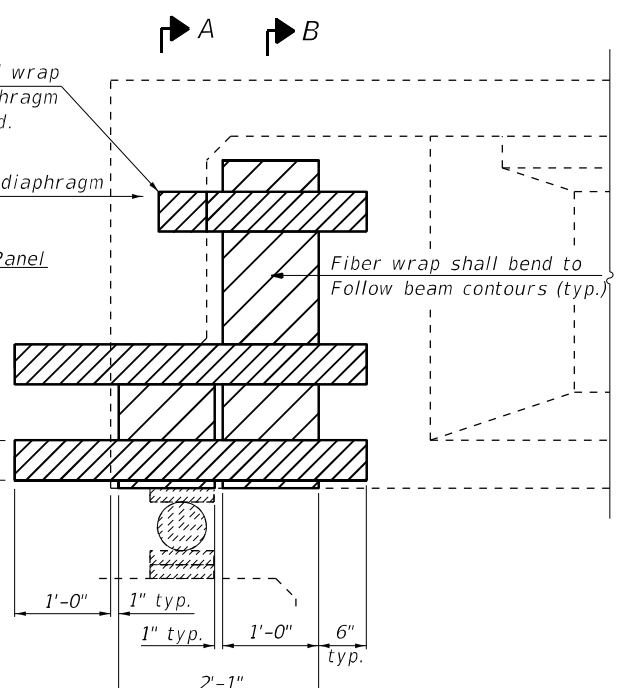
SECTION B-B



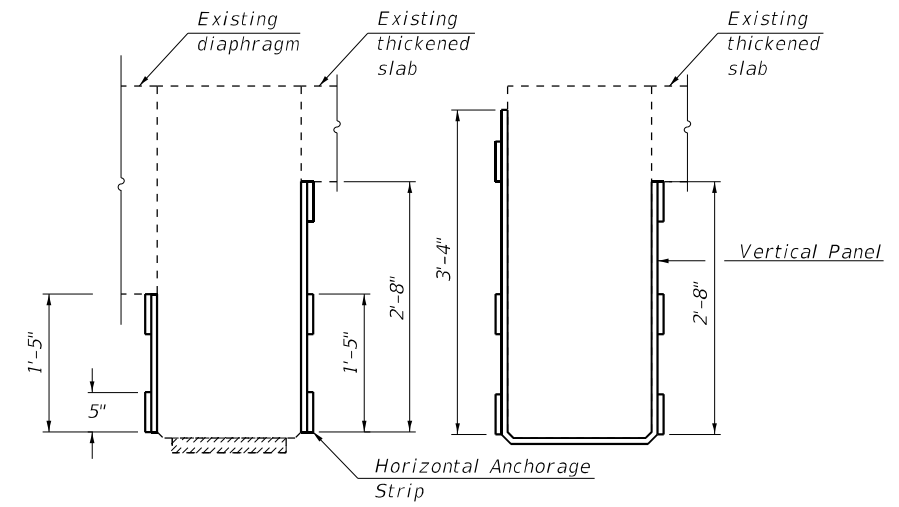
Note:
 Wrap Horizontal FRP strips around end of beam (Typ. all details)

Roller bearing shown. Similar at fixed bearings.

See sheet 13 of 25 for Bill of Materials including Fiber Wrap repairs.
 Repair A: 18.9 Sq. Ft. per location.

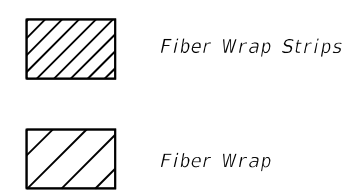


TYPICAL BEAM END ELEVATION REPAIR A
(1959 BEAMS, 17 LOCATIONS)



SECTION A-A
Showing area at Bearing

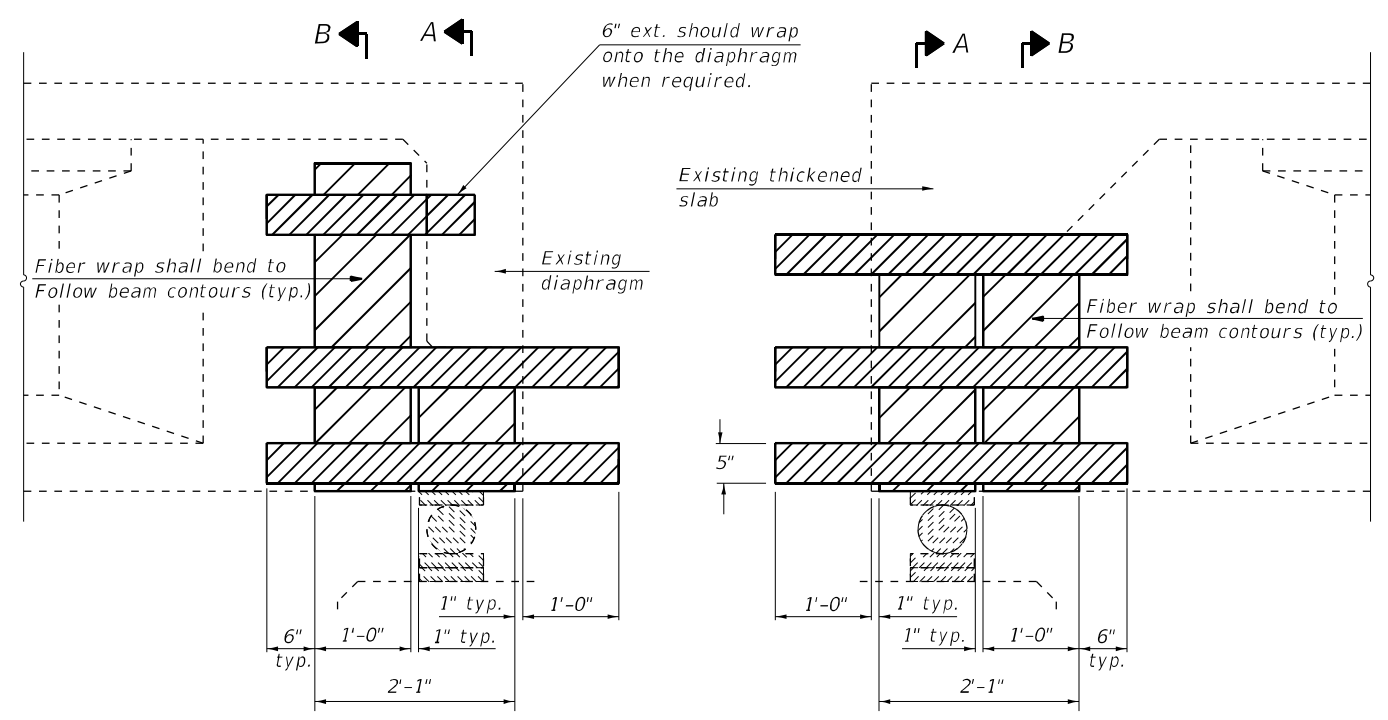
SECTION B-B



Note:
 Wrap Horizontal FRP strips around end of beam (Typ. all details)

Roller bearing shown. Similar at fixed bearings.

See sheet 13 of 25 for Bill of Materials including Fiber Wrap repairs.
 Repair B: 20.1 Sq. Ft. per location.



TYPICAL BEAM END ELEVATIONS REPAIR B
(1959 BEAM 14, 3 LOCATIONS)

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

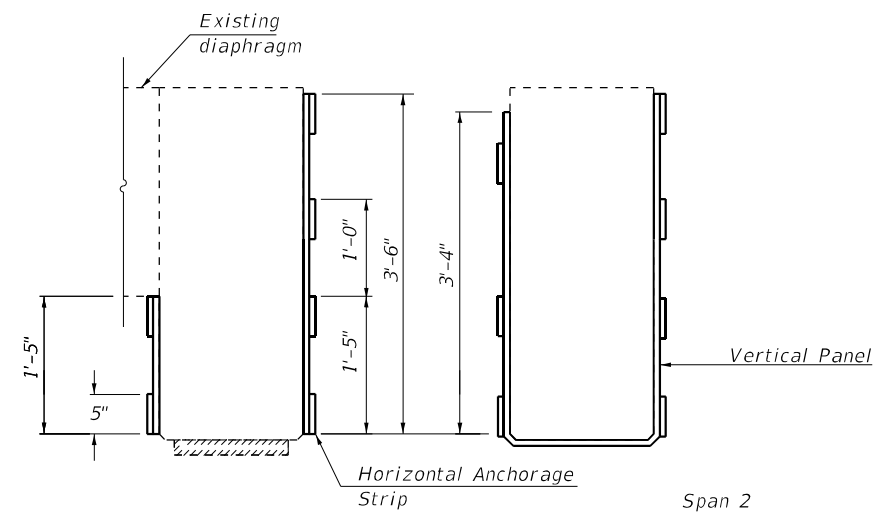
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED -
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED -
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED -
	CHECKED - SMJ	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM REPAIR DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

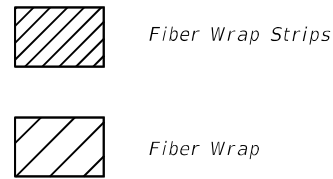
SHEET 15 OF 25 SHEETS

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 39
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

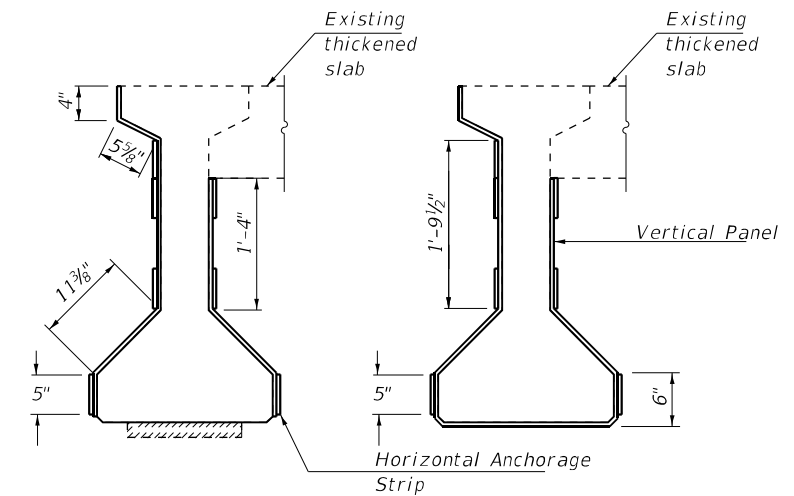


SECTION A-A
Showing area at Bearing

SECTION B-B

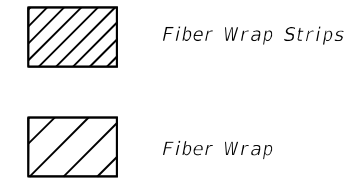


Note:
Wrap Horizontal FRP strips around end of beam (Typ. all details)
Roller bearing shown. Similar at fixed bearings.
See sheet 13 of 25 for Bill of Materials including Fiber Wrap repairs.
Repair C: 23.3 Sq. Ft. per location.

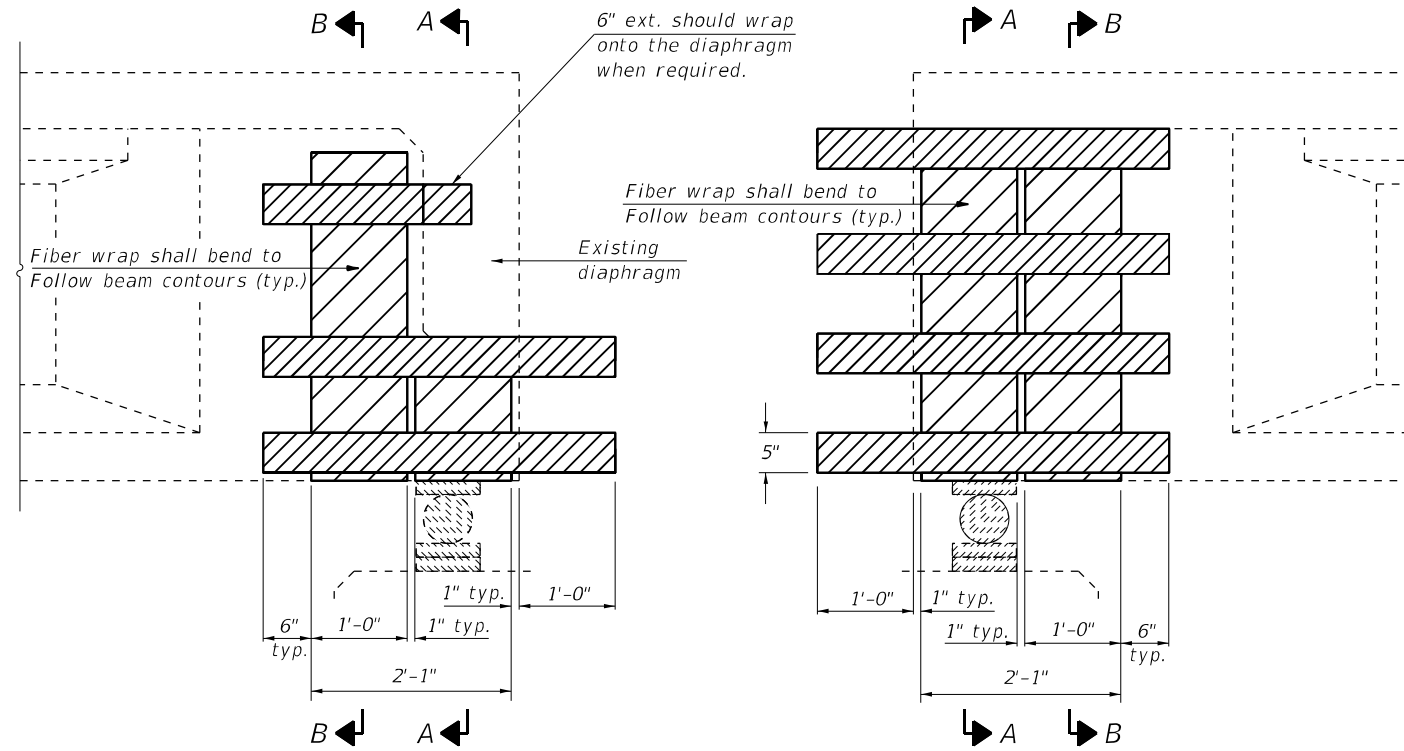


SECTION A-A
Showing area at Bearing

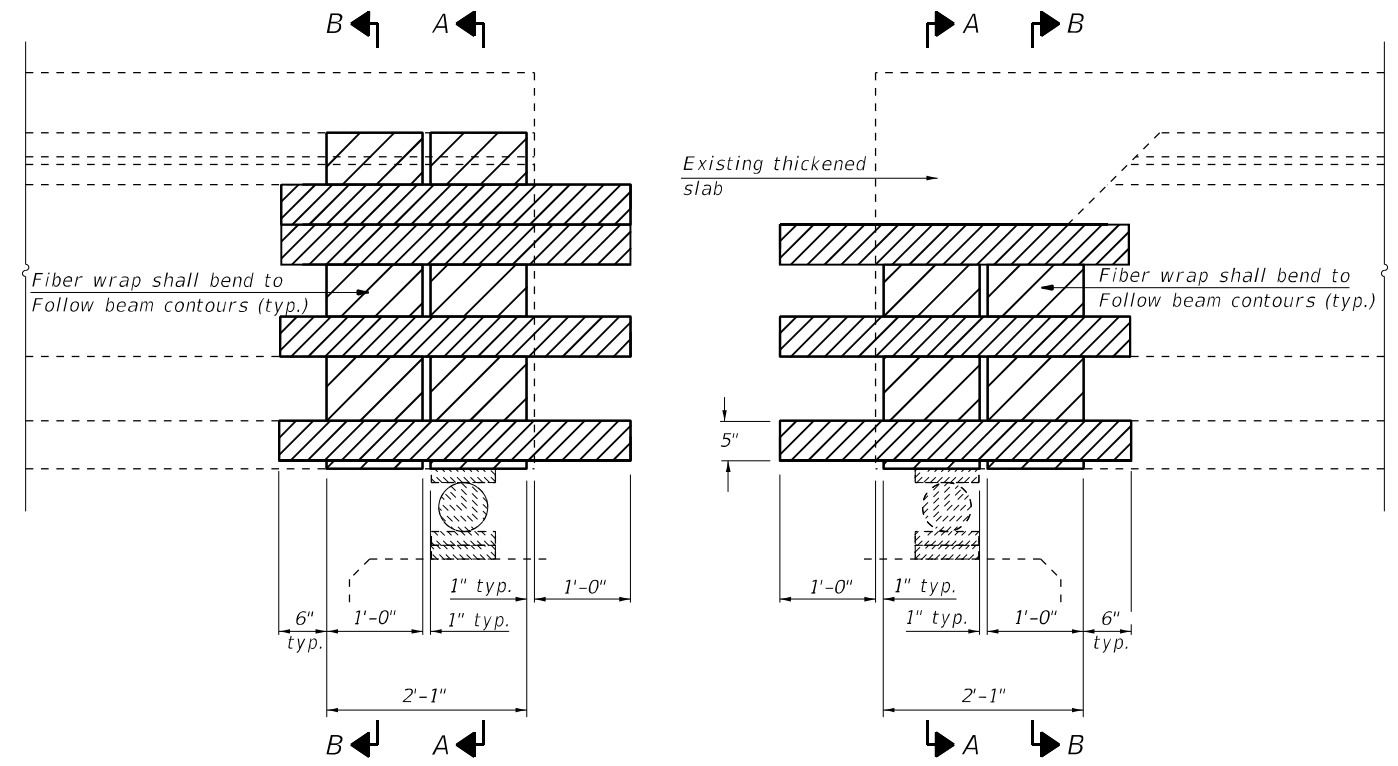
SECTION B-B



Note:
Wrap Horizontal FRP strips around end of beam (Typ. all details)
Roller bearing shown. Similar at fixed bearings.
See sheet 13 of 25 for Bill of Materials including Fiber Wrap repairs.
Repair D: 26.0 Sq. Ft. per location.



TYPICAL BEAM END ELEVATION
REPAIR C
(1959 BEAMS 7-8, 9 LOCATIONS)



TYPICAL BEAM END ELEVATION
REPAIR D
(1993 BEAMS, 10 LOCATIONS)

MODEL: Default
FILE NAME: I:\jobs\2019\1011\1901_PTB_193-025 D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-016 - Beam Repair.dgn
3/22/2022 3:33:21 PM

Prairie Engineers, P.C.
22484 Grosenbach Road
Washington, IL 61571
(217) 695-9493
www.prairieengineers.com
Professional design firm no. 154-005986
© Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset
DESIGNED - ESN & SMJ
CHECKED - SMJ & JZM
DRAWN - AKN & JLM
CHECKED - SMJ
PLOT SCALE = 0:2.0000 "/ in.
PLOT DATE = 3/22/2022

DESIGNED - ESN & SMJ
CHECKED - SMJ & JZM
DRAWN - AKN & JLM
CHECKED - SMJ
REVISOR -
REVISOR -
REVISOR -
REVISOR -

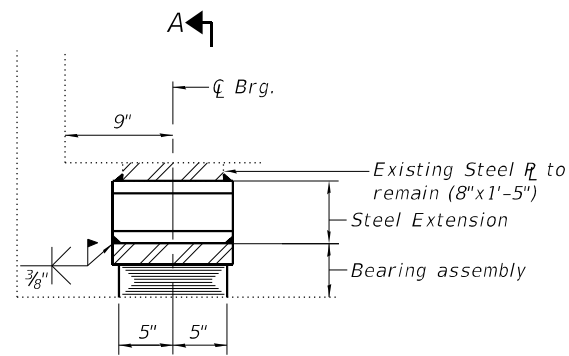
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM REPAIR DETAILS
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

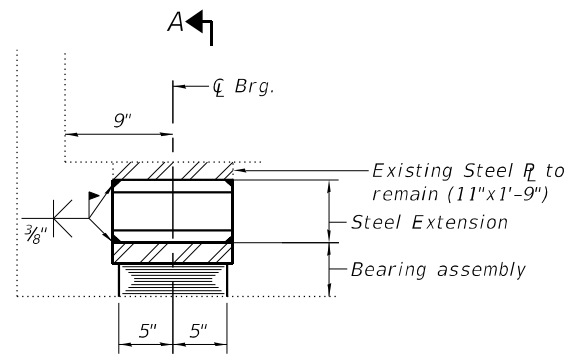
SHEET 16 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	40
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

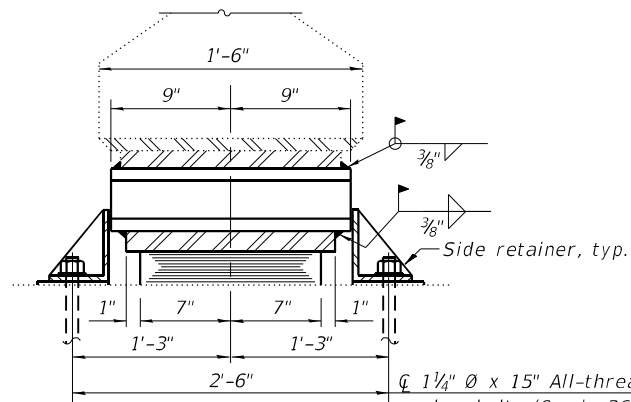
MODEL: Default
 FILE NAME: I:\jobs\2019\1011-1901_PTB_193-025 D5 Various Phase -HWWork Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-017 - BEARING DETAIL_SHT 1.dgn
 3/22/2022 3:34:20 PM



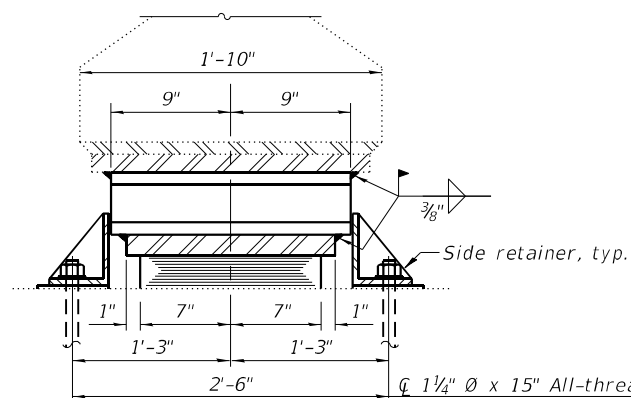
ELEVATION AT PIER.
(Beams 1-14)



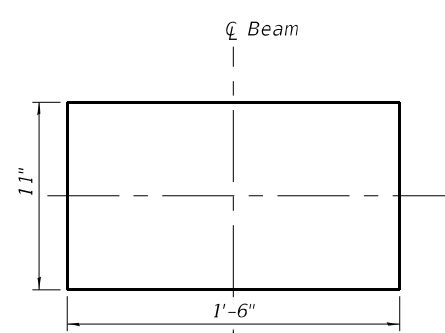
ELEVATION AT PIER.
(Beams 1A and 14A)



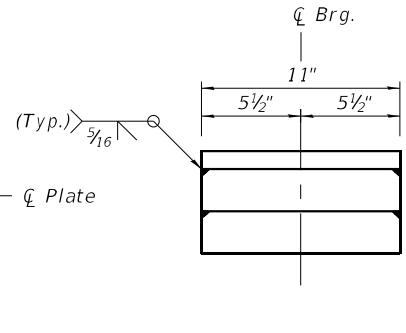
SECTION A-A
(Beams 1-14)
1 1/4" Ø x 15" All-thread anchor bolts (Grade 36) with 2 3/4" x 2 3/4" x 5/16" R washer under nut.



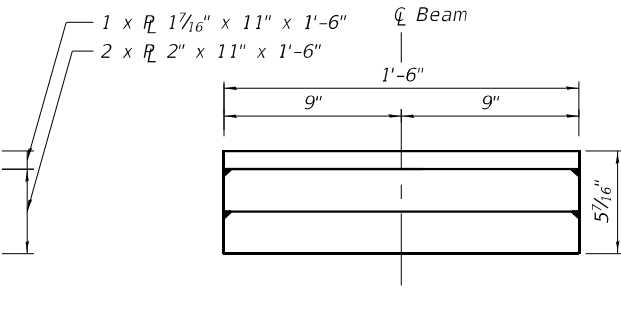
SECTION A-A
(Beams 1A and 14A)
1 1/4" Ø x 15" All-thread anchor bolts (Grade 36) with 2 3/4" x 2 3/4" x 5/16" R washer under nut.



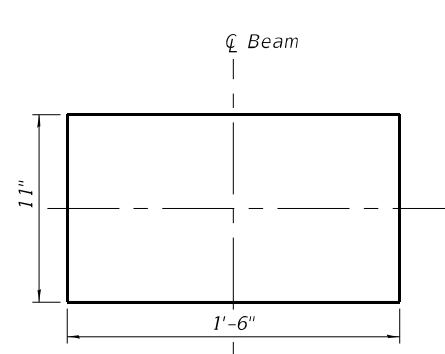
PLAN VIEW STEEL EXTENSION
(Beams 1-14)



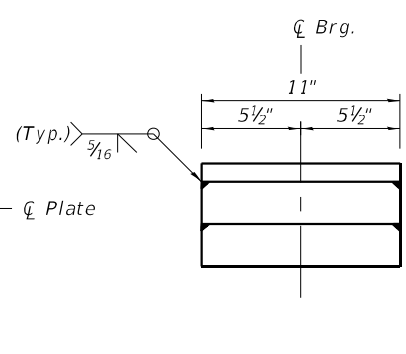
ELEVATION STEEL EXTENSION
(Beams 1-14)



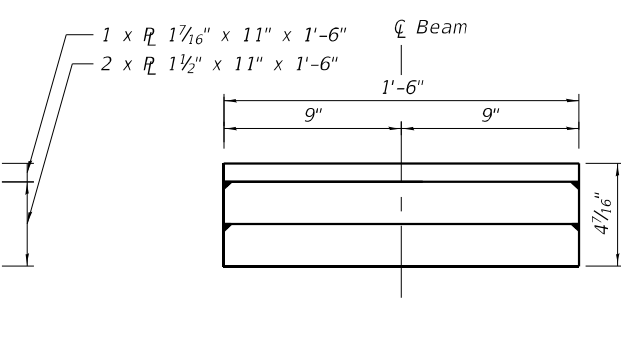
END VIEW STEEL EXTENSION
(Beams 1-14)



PLAN VIEW STEEL EXTENSION
(Beams 1A & 14A)

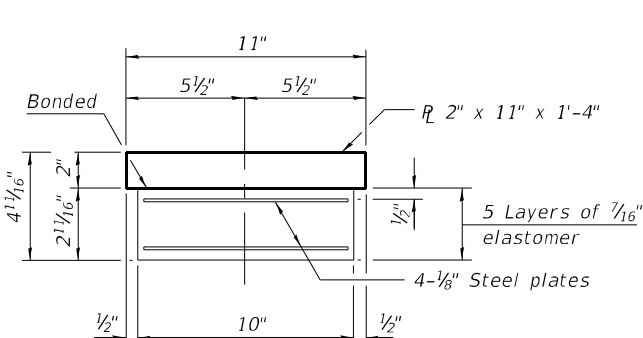


ELEVATION STEEL EXTENSION
(Beams 1A & 14A)

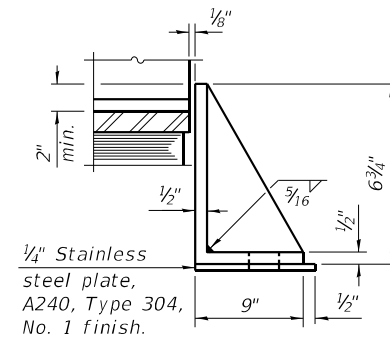


END VIEW STEEL EXTENSION
(Beams 1A & 14A)

TYPE I ELASTOMERIC EXP. BRG.
(Typ. Pier 1 & East Brg's, Pier 2)

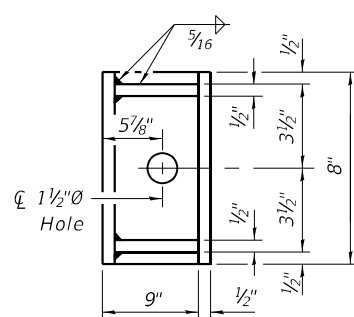


BEARING ASSEMBLY



SIDE RETAINER

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

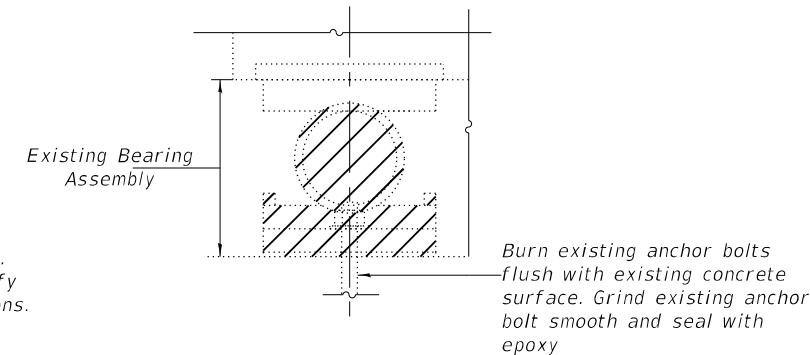


BEAM REACTIONS

R _p	(k)	51.4
R _t	(k)	30.4
Imp.	(k)	8.9
R (Total)	(k)	90.7

Notes:

- New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).
- Min. jack capacity = 80 Tons.
- 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.
- Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- All new steel extensions, bearing plates (Type I only), side retainers, anchor bolts, nuts, and washers shall be hot-dipped galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel". Mask surface of plate to be bonded to elastomer and paint masked surface.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".



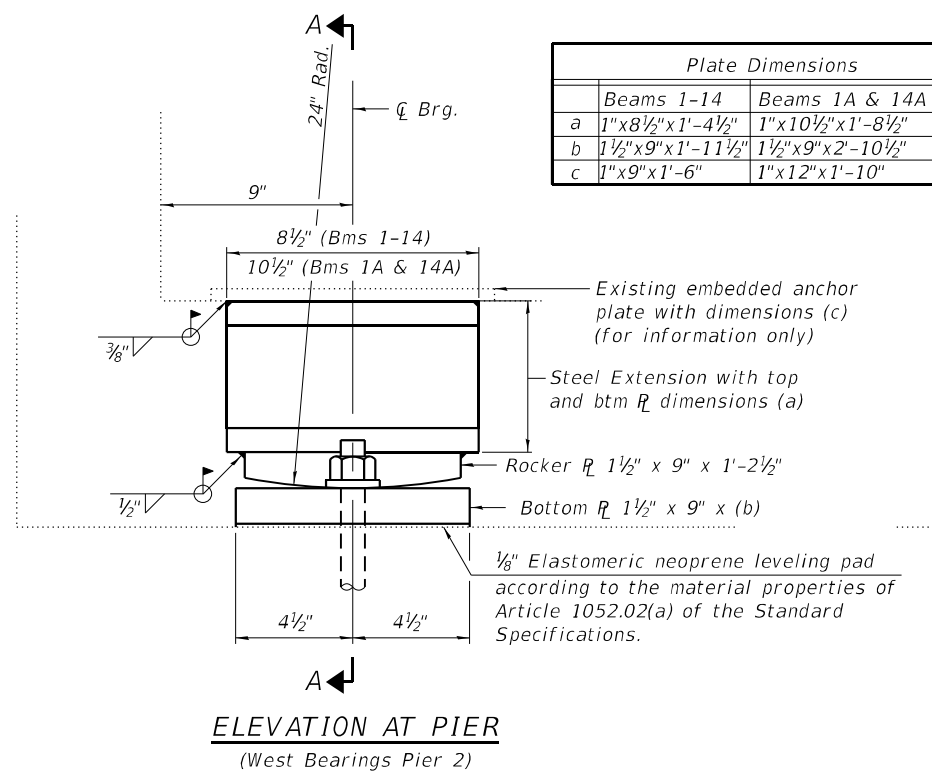
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings, except where Temporary Shoring and Cribbing is used for substructure repairs, cost included with Removal of Existing Bearings.

BILL OF MATERIAL

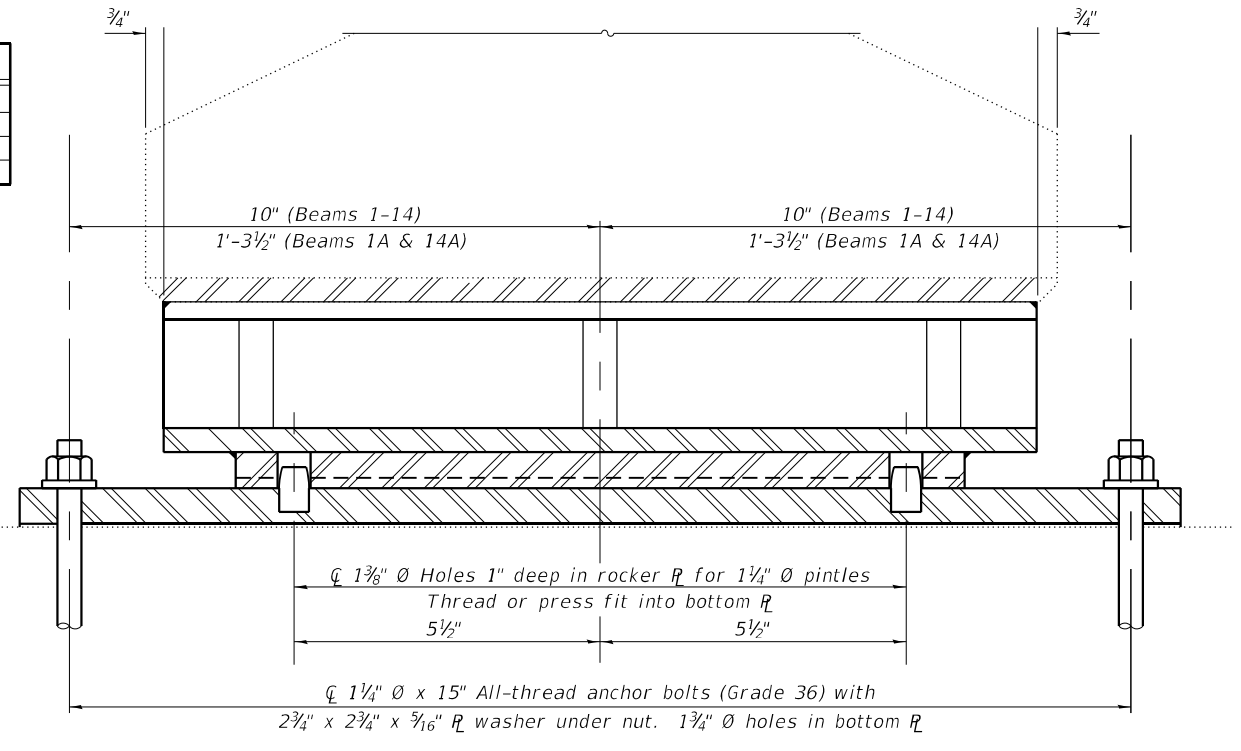
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	48
Jack and Remove Existing Bearings	Each	32
Removal of Existing Bearings	Each	16
Furnishing and Erecting Structural Steel	Pound	12,950
Anchor Bolts 1 1/4"	Each	96

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025 D5 Various Phase -HilWork Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-018 - BEARING DETAIL_SHT 2.dgn
 3/22/2022 3:35:36 PM

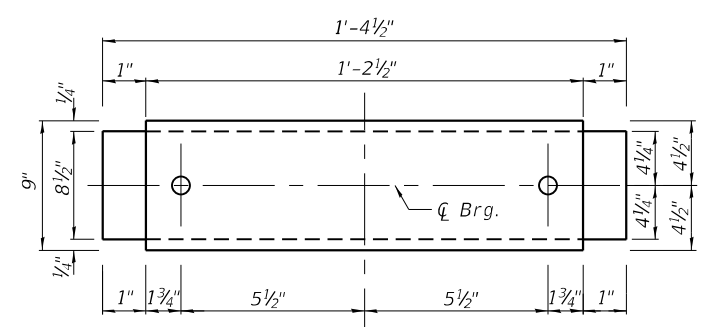


ELEVATION AT PIER
(West Bearings Pier 2)

	Beams 1-14	Beams 1A & 14A
a	1" x 8 1/2" x 1'-4 1/2"	1" x 10 1/2" x 1'-8 1/2"
b	1 1/2" x 9" x 1'-11 1/2"	1 1/2" x 9" x 2'-10 1/2"
c	1" x 9" x 1'-6"	1" x 12" x 1'-10"

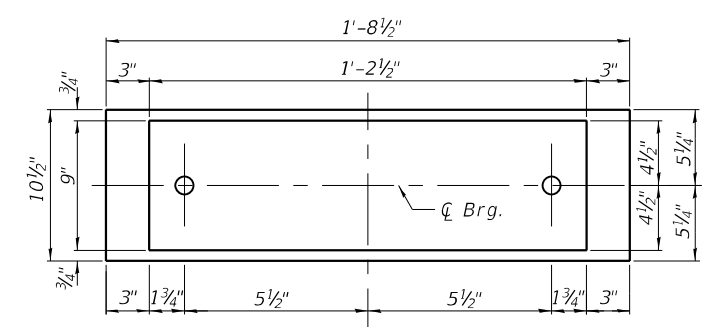


SECTION A-A

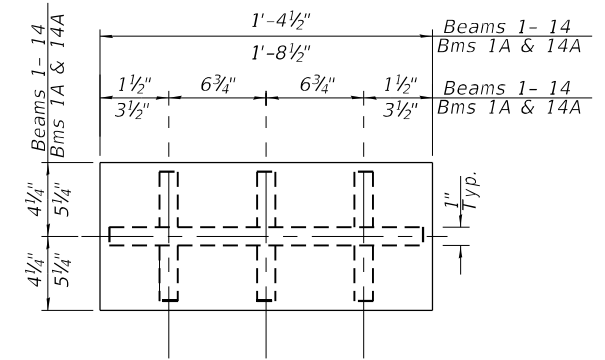


BEAMS 1-14

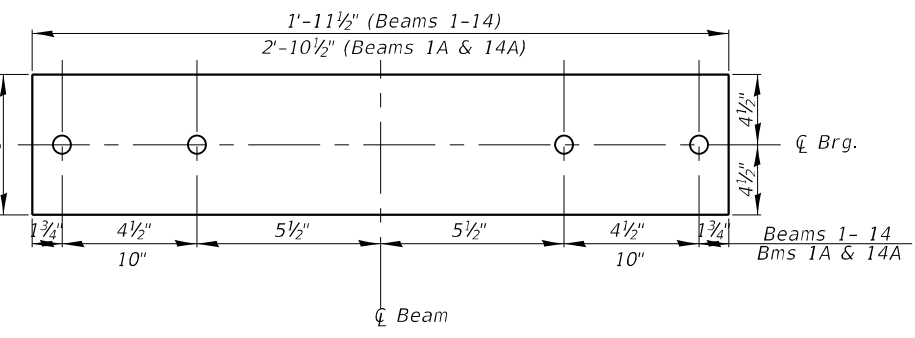
PLAN OF TOP PLATE & ROCKER PLATE
(Looking from below at top plate and rocker plate only)



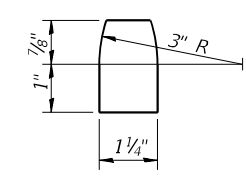
BEAMS 1A-14A



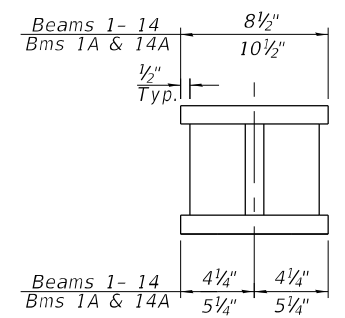
PLAN VIEW STEEL EXTENSION



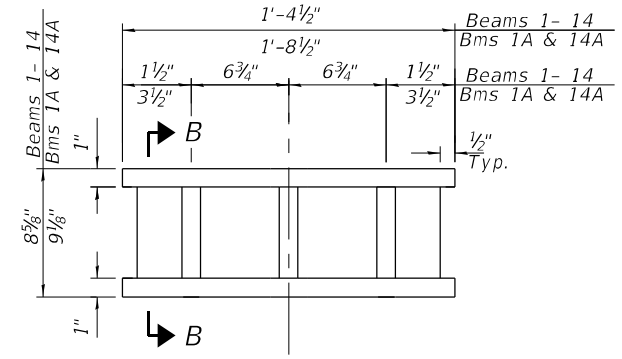
PLAN OF BOTTOM PLATE



PINTLE

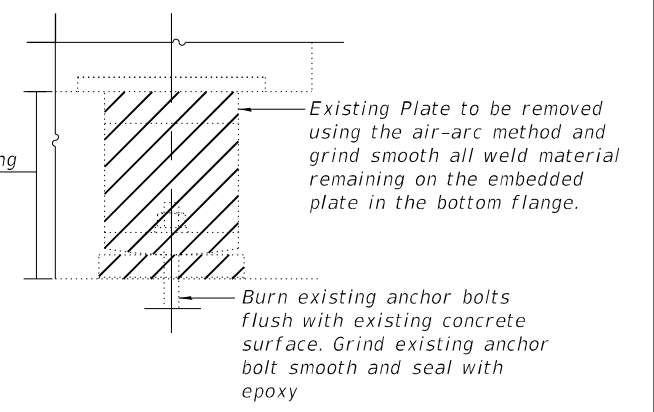


SECTION B-B



END VIEW STEEL EXTENSION

Notes:
 New fixed bearings, steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).
 Min. jack capacity = 80 Tons.
 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.
 All new steel extensions, bearing plates, side retainers, anchor bolts, nuts, and washers for these fixed bearings shall be hot-dipped galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings, except where Temporary Shoring and cribbing is used for substructure repairs, cost included with Removal of Existing Bearings.

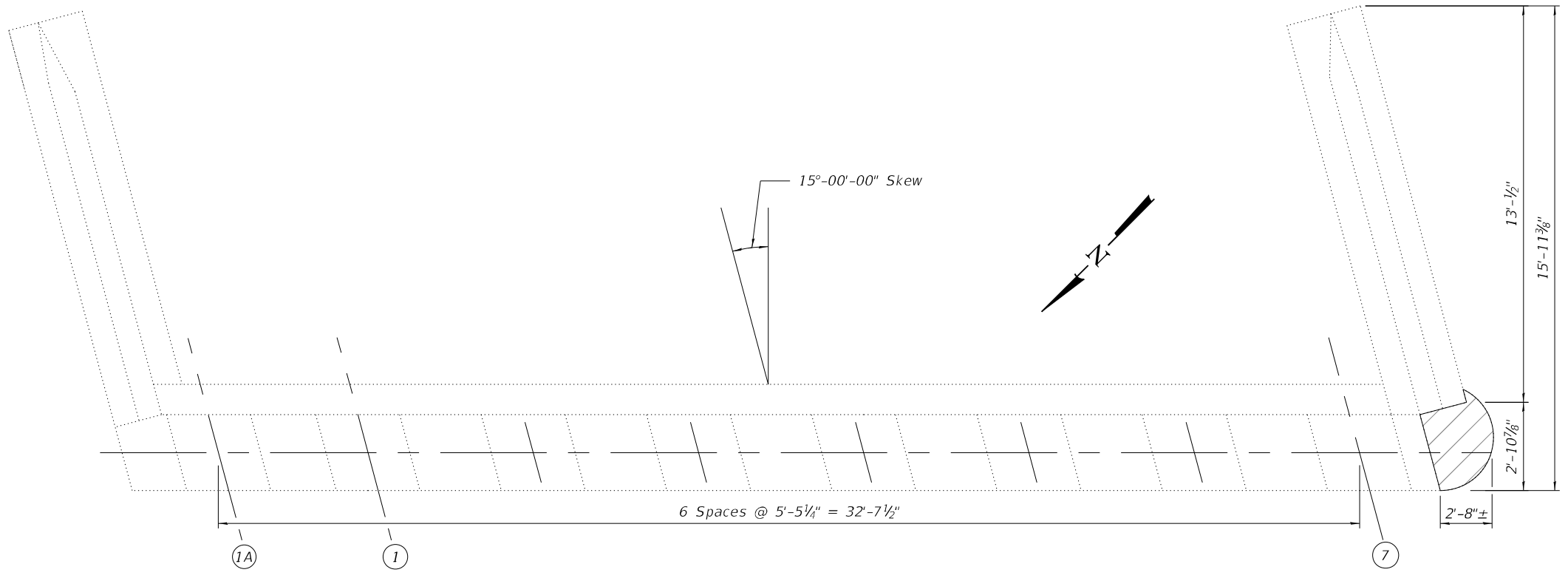
BEAM REACTIONS

R _P	(k)	51.4
R _t	(k)	30.4
Imp.	(k)	8.9
R (Total)	(k)	90.7

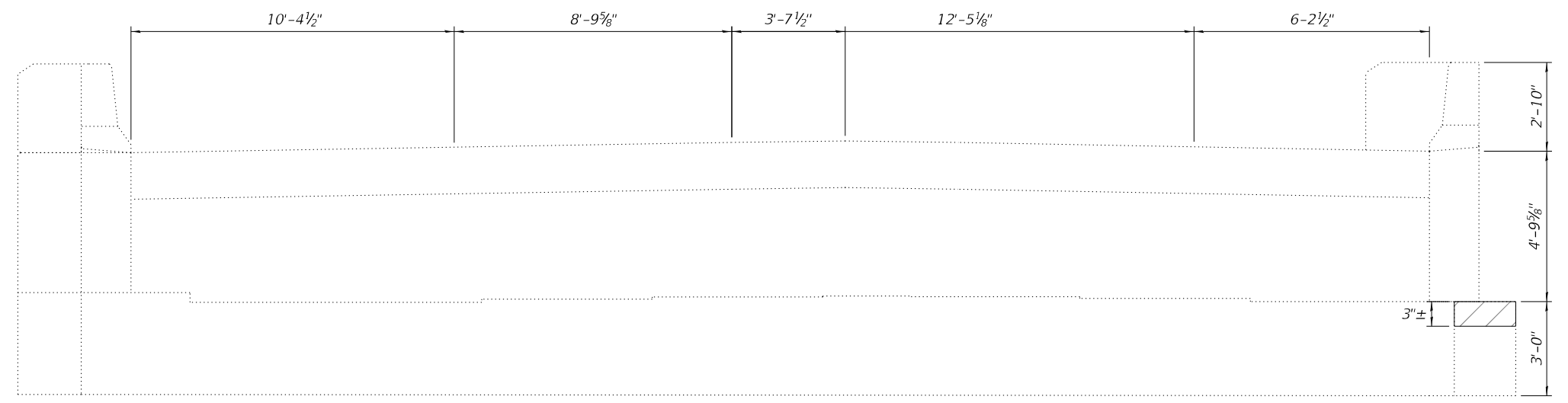
BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	12
Removal of Existing Bearings	Each	4
Furnishing and Erecting Structural Steel	Pound	4,960
Anchor Bolts 1 1/4"	Each	32

MODEL: Default
 FILE NAME: I:\jobs\2019\10.1.1901.PTB_193-025 D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\100025&26-70B78-019 - ABUTMENT REPAIR DETAIL.dgn
 3/22/2022 3:36:42 PM



EAST ABUTMENT PLAN
 (S.N. 010-0026 W.B.)



EAST ABUTMENT ELEVATION
 (S.N. 010-0026 W.B.)

Notes:
 Repair areas are estimated. Actual sizes and locations of concrete repairs shall be determined by the Engineer and shall be documented on As-Builts plans.

LEGEND



BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth <=5"	Sq. Ft.	8.4

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 "/ in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

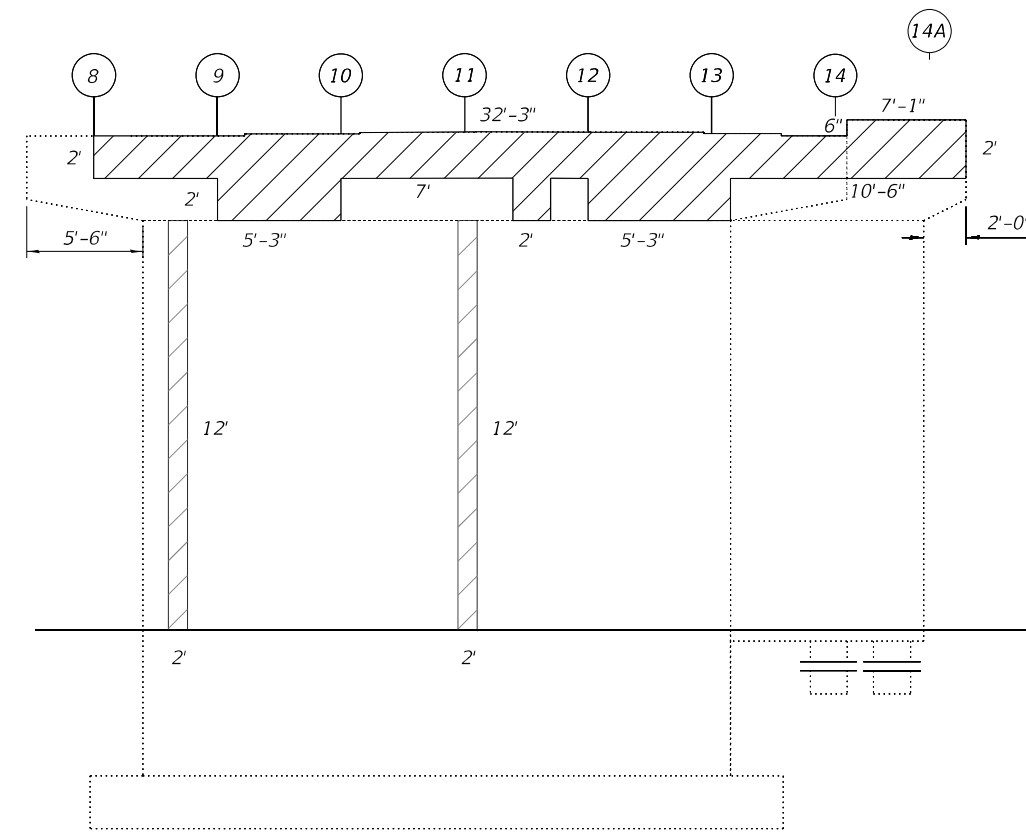
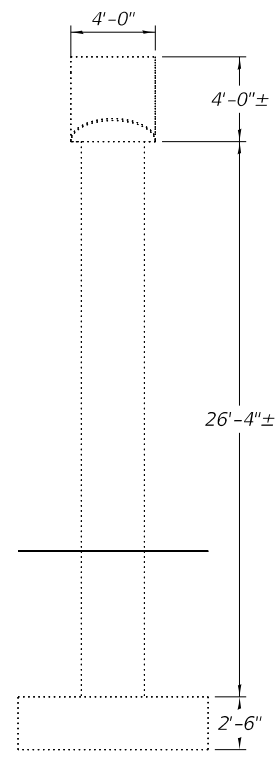
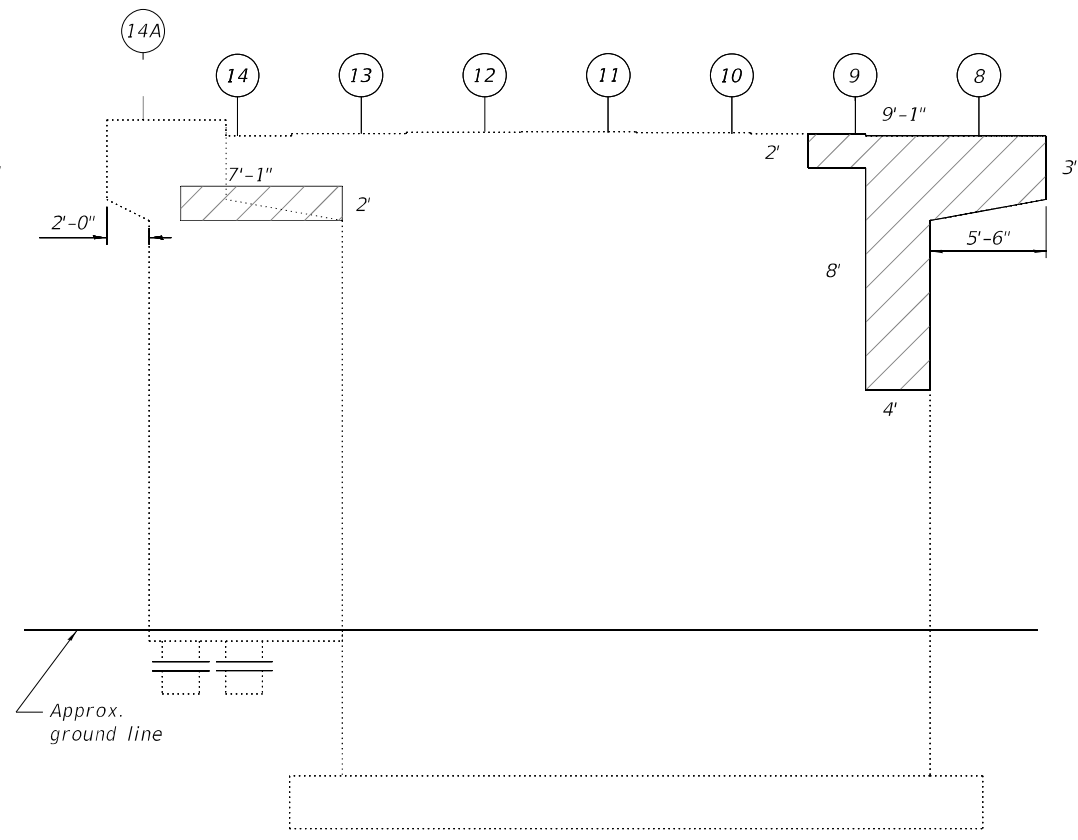
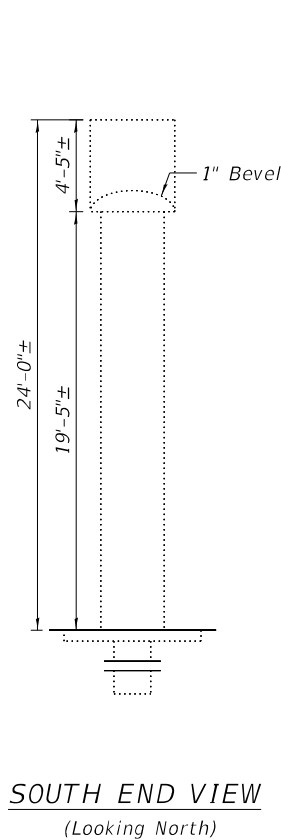
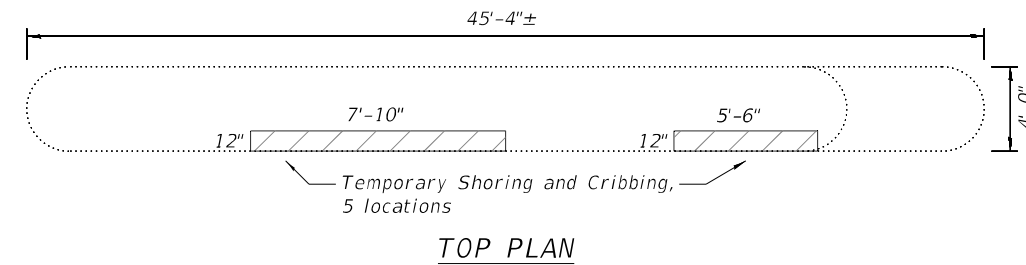
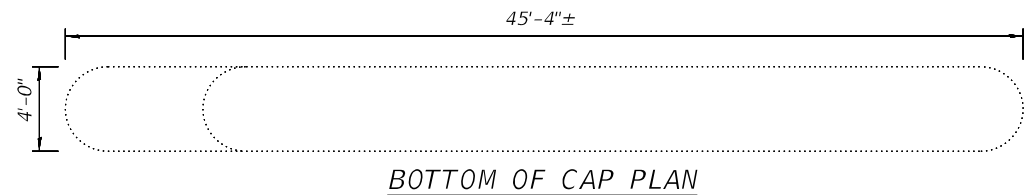
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAIL
STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 19 OF 25 SHEETS

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 43
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025.D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-020-023 - PIER REPAIR DETAIL SHT 1-4.dgn
 3/22/2022 3:40:00 PM



Notes:
 Repair areas are estimated. Actual sizes and locations of concrete repairs shall be determined by the Engineer and shall be documented on As-Builts plans.

Temporary Shoring and Cribbing locations are estimated. Additional locations, if required, shall be determined by the Engineer after actual extent and depth of Structural Repair of Concrete has been determined during construction. Concrete repairs within 1½" of bearing plates shall require Temporary Shoring and Cribbing for the associated beams.

LEGEND



BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth <=5"	Sq. Ft.	237.6
Temporary Shoring and Cribbing	Each	5

(Sheet 1 of 4)

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2,0000 " / in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

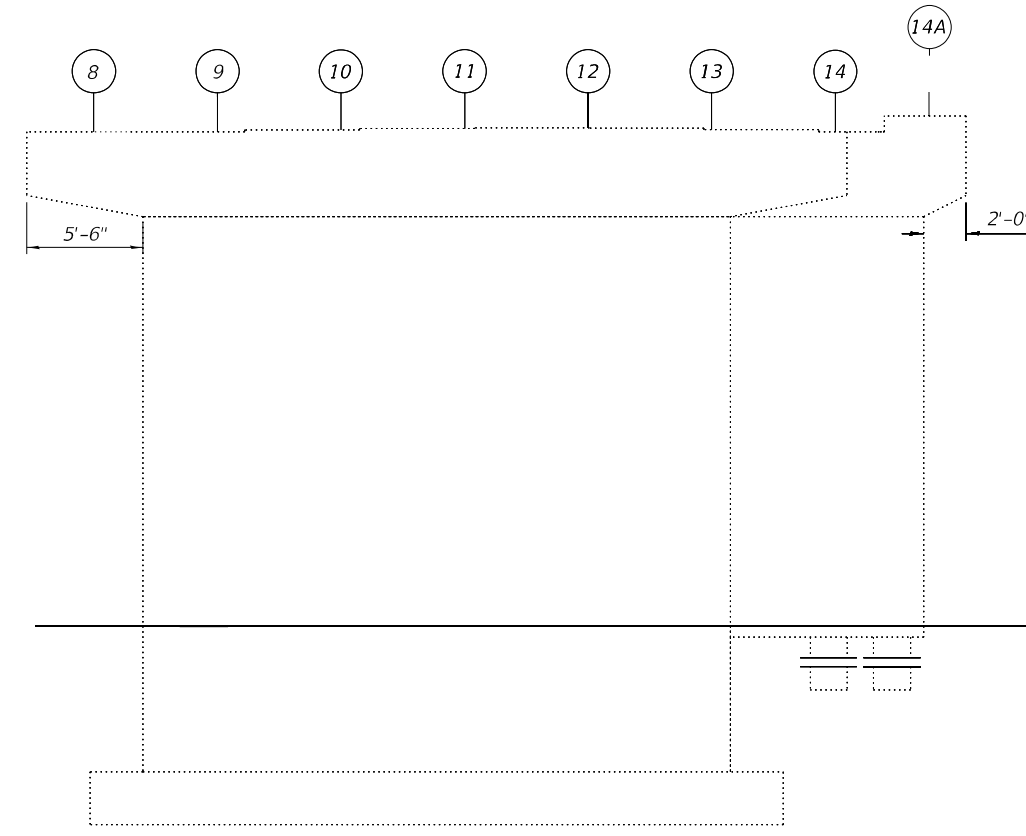
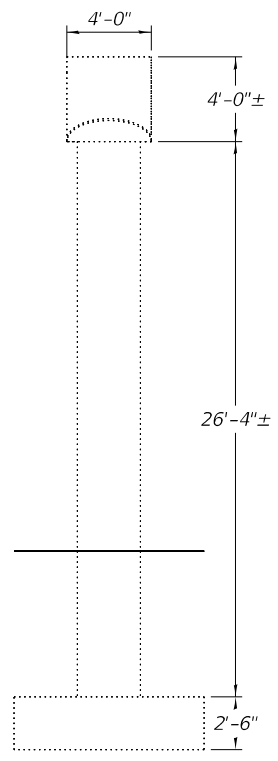
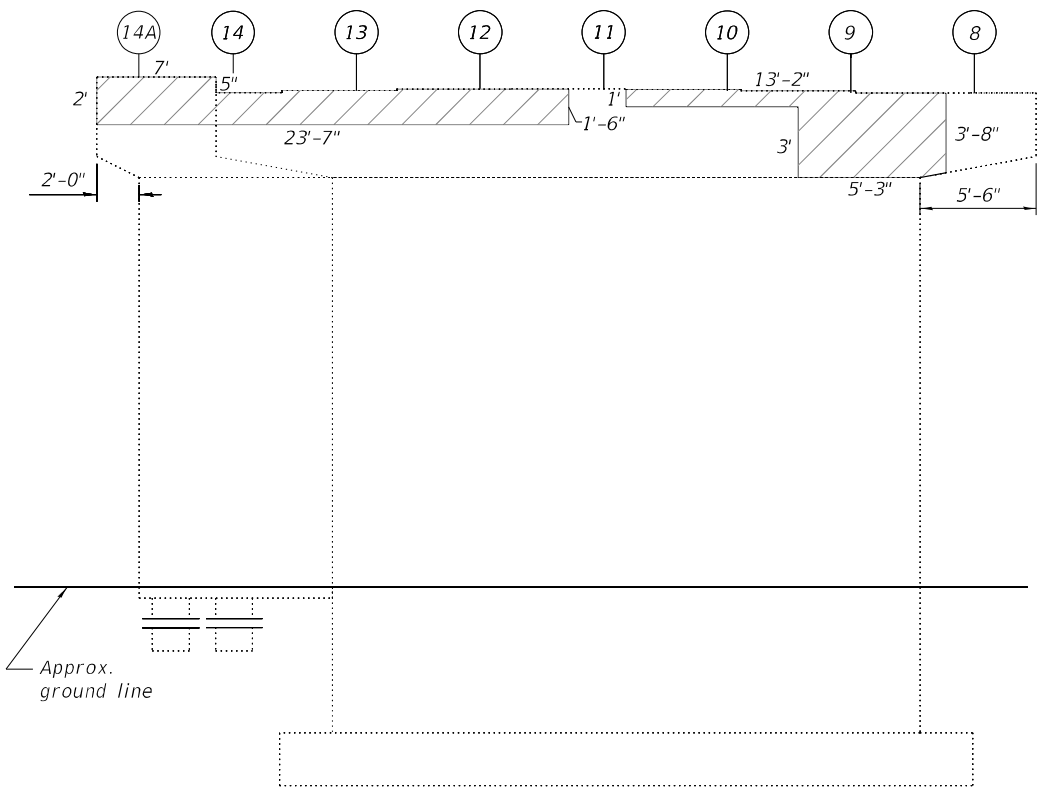
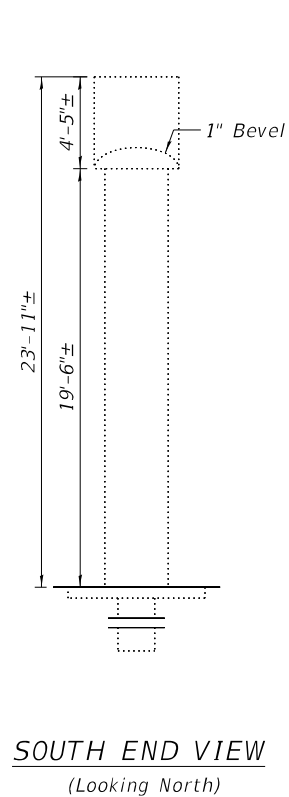
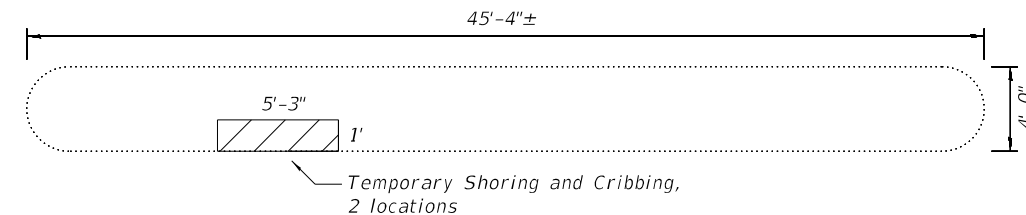
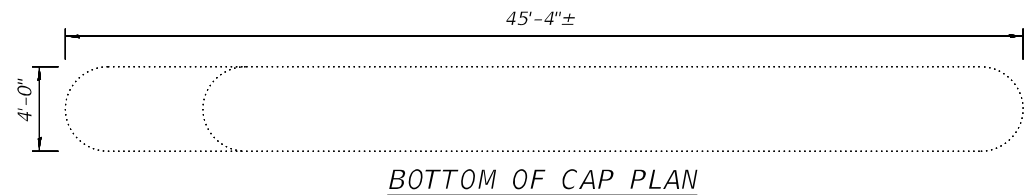
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PIER REPAIR DETAIL - SN 010-0025 E.B PIER 1
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 20 OF 25 SHEETS

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 44
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\1011-1901-PTB-193-025 D5 Various Phase-III\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-020-023 - PIER REPAIR DETAIL SHT 1-4.dgn
 3/22/2022 3:40:28 PM



Notes:
 Repair areas are estimated. Actual sizes and locations of concrete repairs shall be determined by the Engineer and shall be documented on As-Builts plans.
 Temporary Shoring and Cribbing locations are estimated. Additional locations, if required, shall be determined by the Engineer after actual extent and depth of Structural Repair of Concrete has been determined during construction. Concrete repairs within 1½" of bearing plates shall require Temporary Shoring and Cribbing for the associated beams.

LEGEND

 Structural Repair of Concrete Depth <=5"

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth <=5"	Sq. Ft.	73.0
Temporary Shoring and Cribbing	Each	2

(Sheet 2 of 4)

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9403
 www.prairieengineers.com
 professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 " = 1' / in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

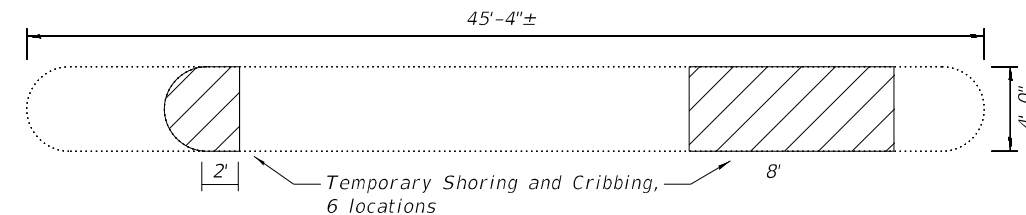
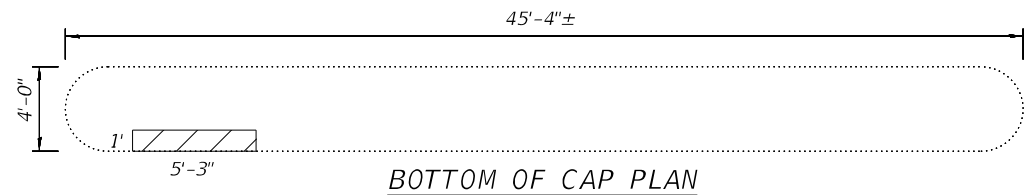
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PIER REPAIR DETAILS - SN 010-0025 E.B. PIER 2
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

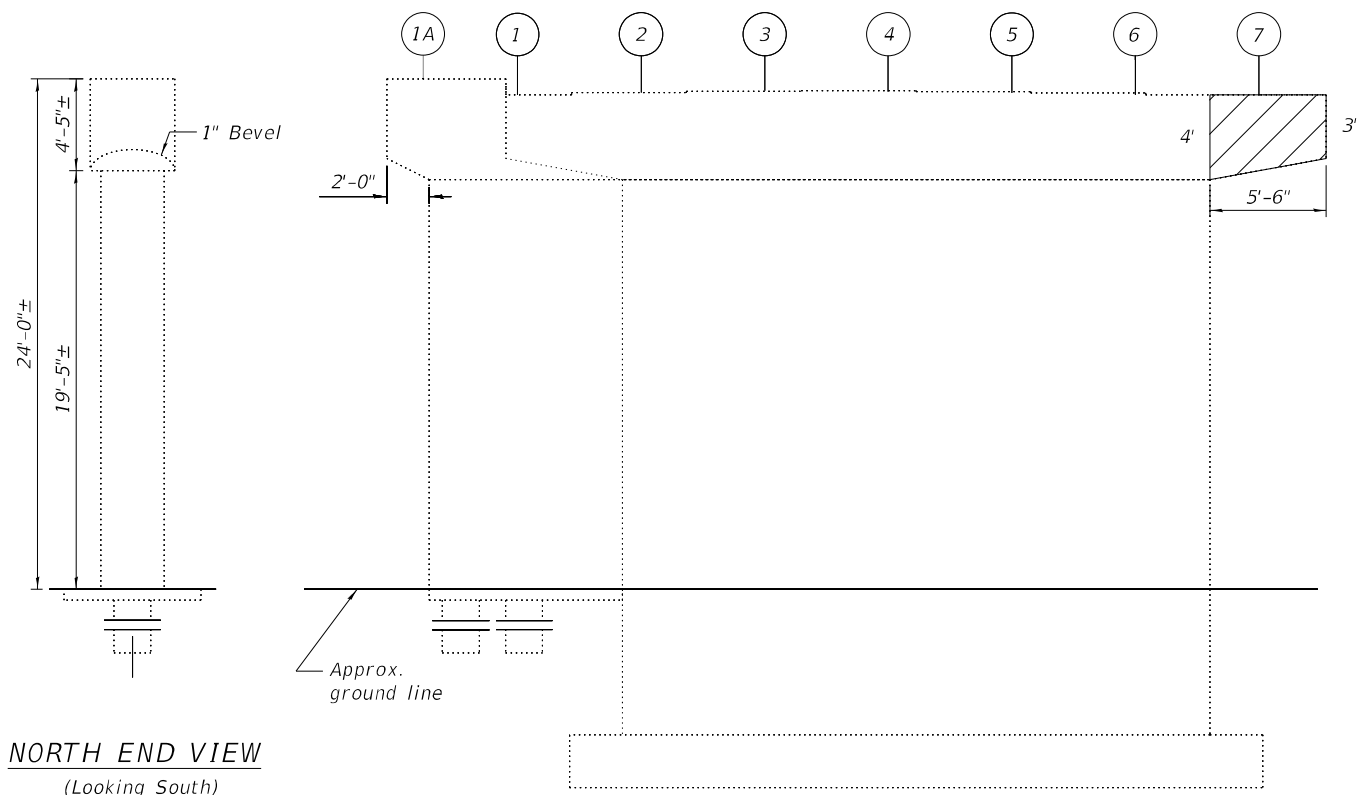
SHEET 21 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	45
CONTRACT NO. 70B78				
ILLINOIS		FED. AID PROJECT		

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025.D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-02-023 - PIER REPAIR DETAIL SHT 1-4.dgn
 3/22/2022 3:40:53 PM

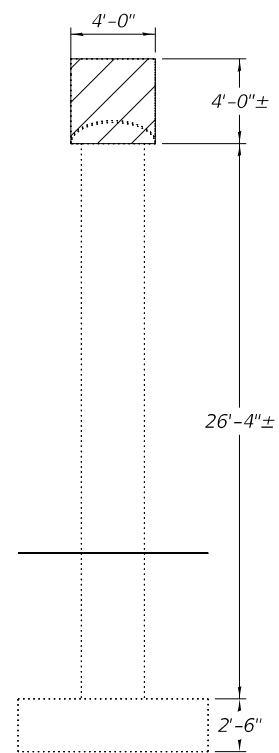


TOP PLAN

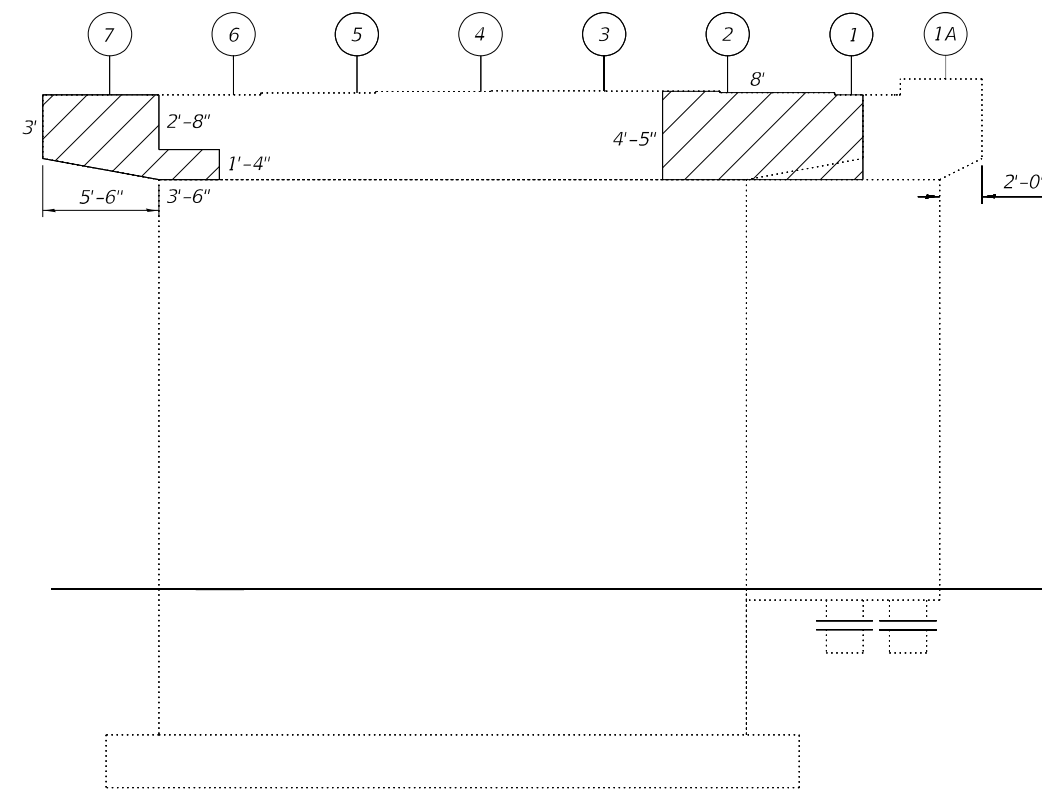


NORTH END VIEW
(Looking South)

WEST ELEVATION
(Looking East)



SOUTH END VIEW
(Looking North)



EAST ELEVATION
(Looking West)

Notes:
 Repair areas are estimated. Actual sizes and locations of concrete repairs shall be determined by the Engineer and shall be documented on As-Builts plans.

Temporary Shoring and Cribbing locations are estimated. Additional locations, if required, shall be determined by the Engineer after actual extent and depth of Structural Repair of Concrete has been determined during construction. Concrete repairs within 1½" of bearing plates shall require Temporary Shoring and Cribbing for the associated beams.

LEGEND

 Structural Repair of Concrete Depth <=5"

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth <=5"	Sq. Ft.	147.7
Temporary Shoring and Cribbing	Each	6

(Sheet 3 of 4)

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9493
 www.prairieengineers.com
 Professional Design Firm No. 154-005986
 Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 " / in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

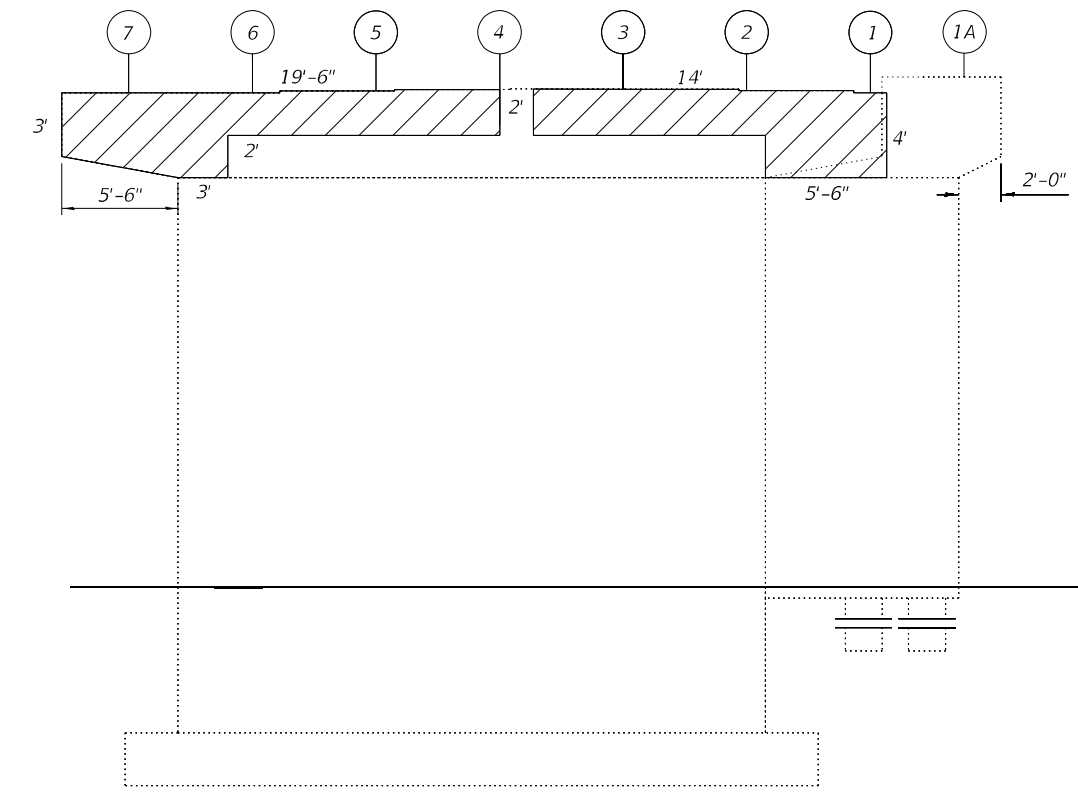
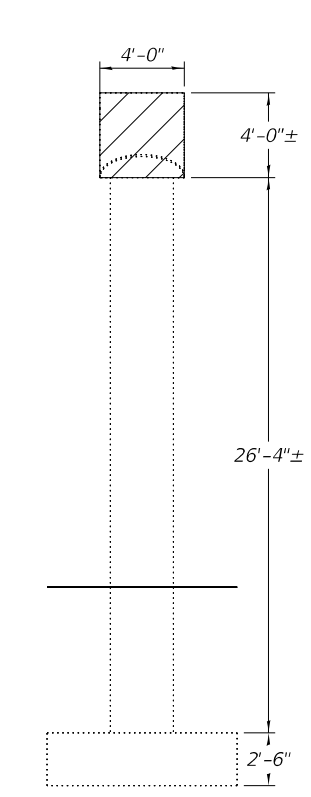
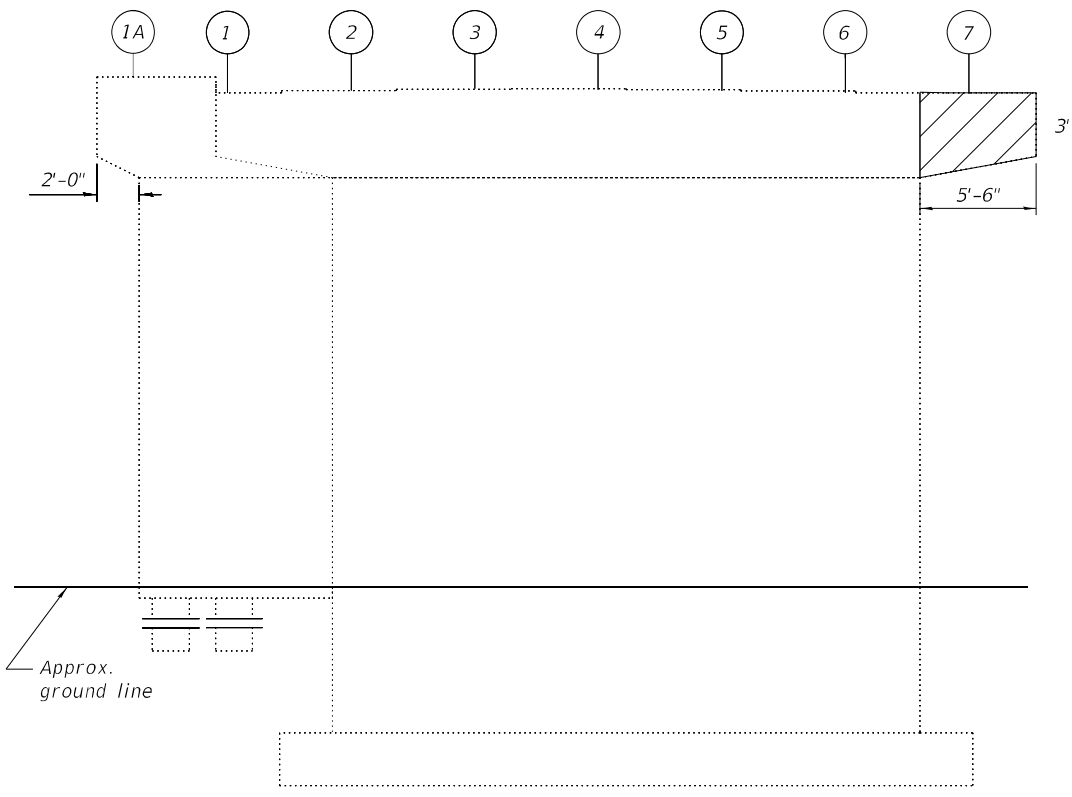
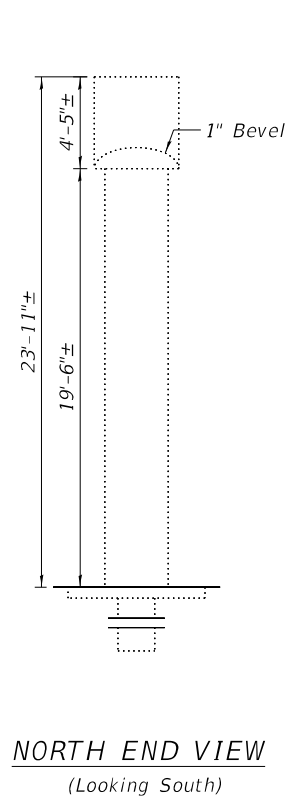
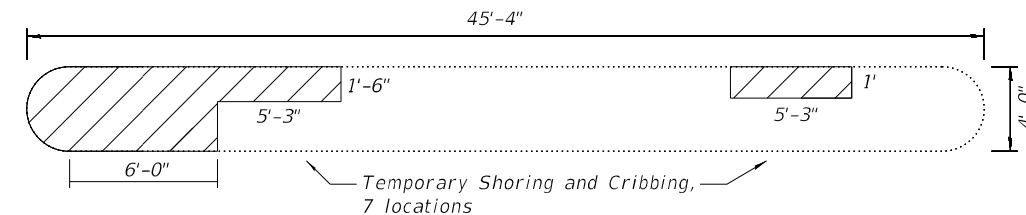
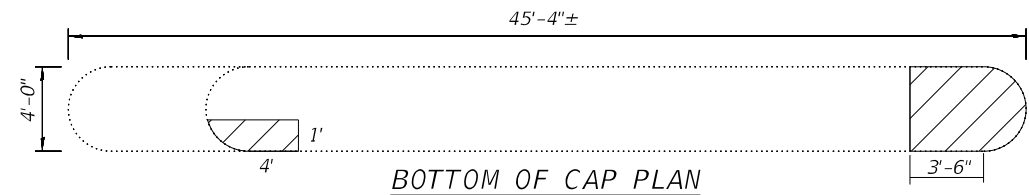
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAIL - SN 010-0026 W.B. PIER 1
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 22 OF 25 SHEETS

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 46
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\101.1901.PTB_193-025.D5 Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-02-023 - PIER REPAIR DETAIL SHT 1-4.dgn
 3/22/2022 3:41:15 PM



Notes:
 Repair areas are estimated. Actual sizes and locations of concrete repairs shall be determined by the Engineer and shall be documented on As-Builts plans.

Temporary Shoring and Cribbing locations are estimated. Additional locations, if required, shall be determined by the Engineer after actual extent and depth of Structural Repair of Concrete has been determined during construction. Concrete repairs within 1½" of bearing plates shall require Temporary Shoring and Cribbing for the associated beams.

LEGEND

Structural Repair of Concrete Depth <=5"

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth <=5"	Sq. Ft.	201.4
Temporary Shoring and Cribbing	Each	7

(Sheet 4 of 4)

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 665-9403
 www.prairieengineers.com
 Professional design firm no. 154-005986
 Copyright Prairie Engineers, P.C. 2022

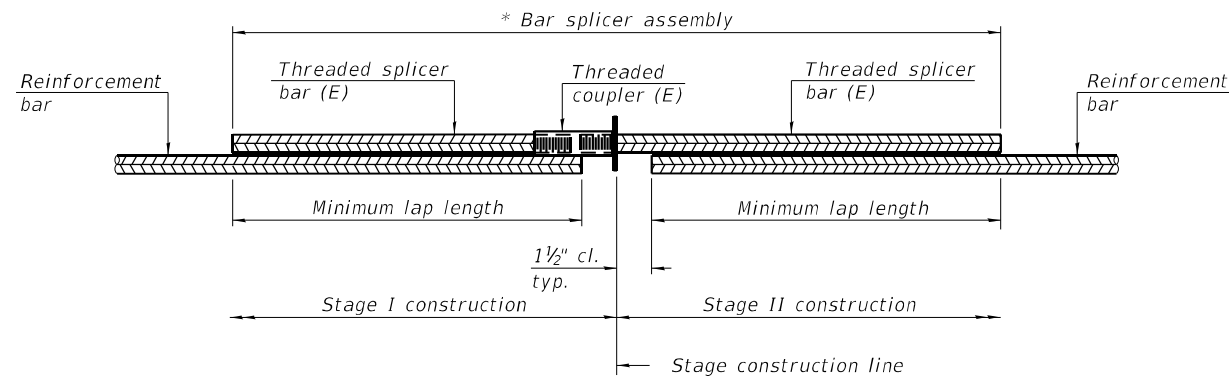
USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 " / in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PIER REPAIR DETAIL - SN 010-0026 W.B. PIER 2
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 23 OF 25 SHEETS

F.A.I. RTE. 74	SECTION (10-6B)BR-1	COUNTY CHAMPAIGN	TOTAL SHEETS 52	SHEET NO. 47
CONTRACT NO. 70B78				
		ILLINOIS	FED. AID PROJECT	

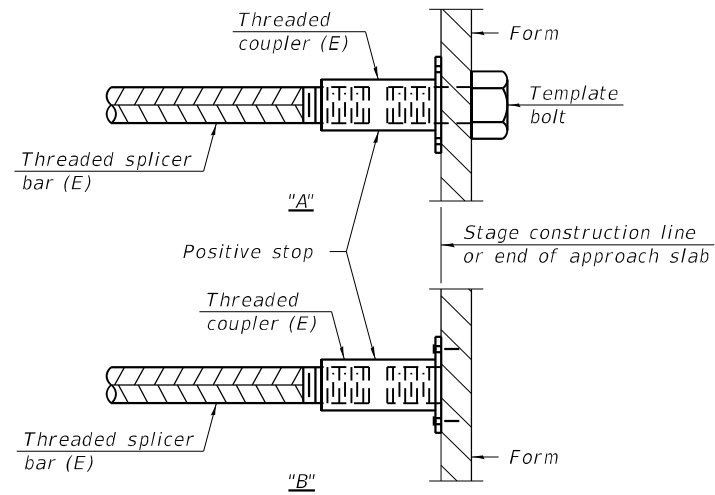


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + 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
Abutment hatch blocks	#6	16	4'-0"
Abutment slab ends	#7	24	5'-2"
Pier slab ends	#7	48	5'-2"

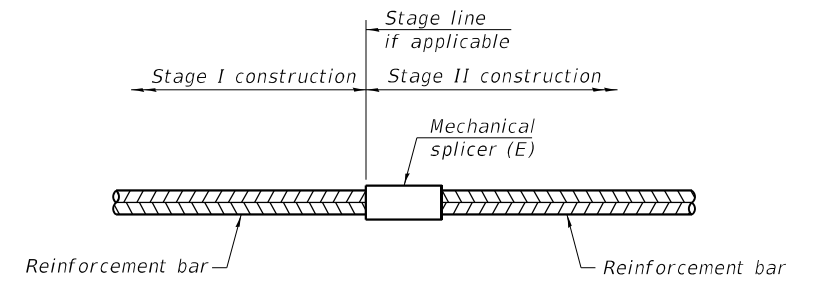


INSTALLATION AND SETTING METHODS

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

MODEL: Default
 FILE NAME: I:\jobs\2019\10.1.1901.PTB_193-025.D5.Variou Phase - I\IWork Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-024 - MECH SPLICER (BAR SPLICER).dgn
 3/22/2022 3:42:24 PM

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-6493
 www.prairieengineers.com
 professional design firm no. 154-005996
 © Copyright Prairie Engineers, P.C., 2022

USER NAME = jmasset	DESIGNED - ESN & SMJ	REVISED - _____
PLOT SCALE = 0:2.0000 " = 1" / in.	CHECKED - SMJ & JZM	REVISED - _____
PLOT DATE = 3/22/2022	DRAWN - AKN & JLM	REVISED - _____
	CHECKED - SMJ	REVISED - _____

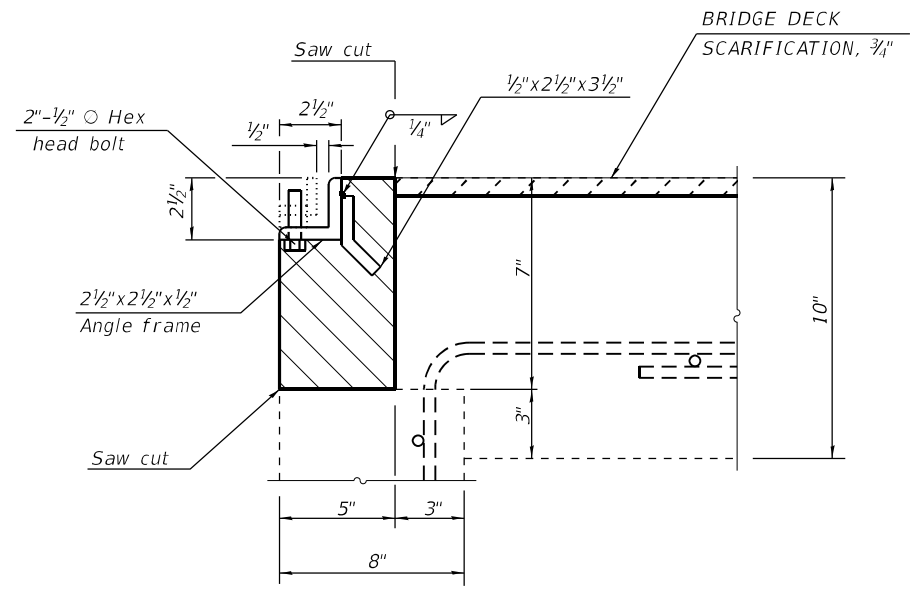
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.**

SHEET 24 OF 25 SHEETS

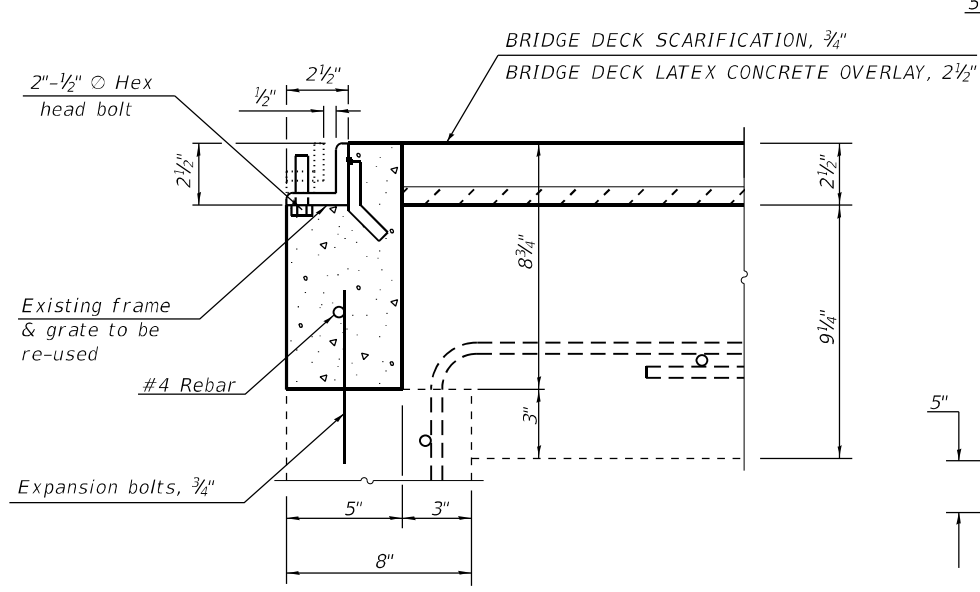
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	48
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: I:\jobs\2019\1011.1901.PTB_193-025.D5_Various Phase - I\Work Order 2\Drawings\CADD_Sheets\Structure_0100025 & 0100026\0100025&26-70B78-025 - INLET BOX ADJUSTMENT.dgn
 3/22/2022 3:43:41 PM



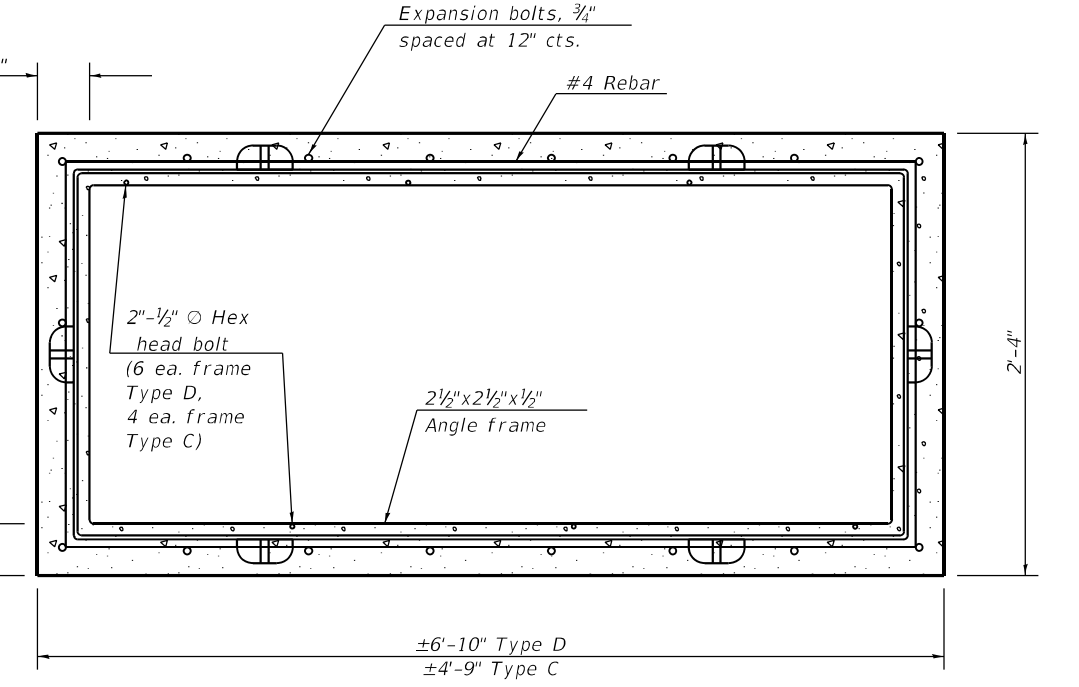
DETAIL "A" - EXISTING

Concrete Removal



DETAIL "A" - PROPOSED

Class S.I. Concrete



PLAN - PROPOSED
 (GRATING OMITTED FOR CLARITY)

NOTES:
 TYPE D FRAMES (3 GRATES) OCCUR AT 10' - WIDE SHOULDERS AND TYPE C FRAMES (2 GRATES) OCCUR AT 6' - WIDE SHOULDERS.
 EXPANSION BOLTS SHALL EXTEND A MINIMUM OF 4" INTO THE PROPOSED CONCRETE.
 ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 602.
 THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "INLET BOXES TO BE ADJUSTED (SPECIAL)" WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO COMPLETE THE WORK.

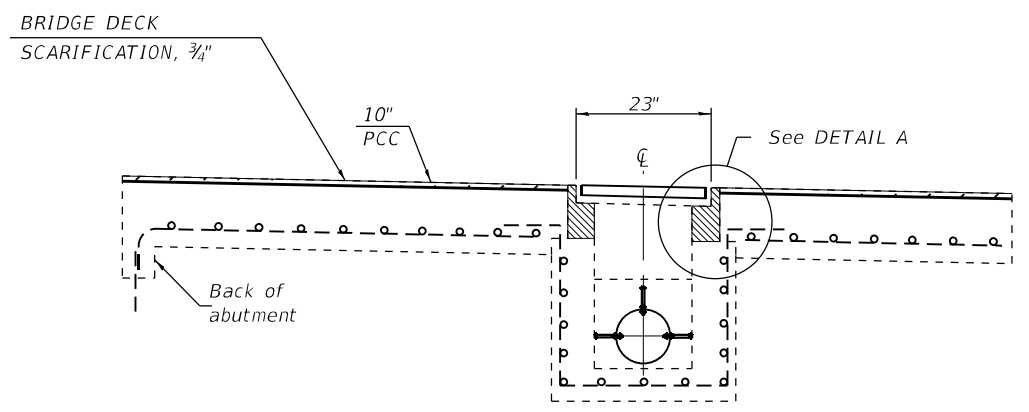
ESTIMATED QUANTITIES
 (For Information only)

ITEM	UNIT	TYPE D		TYPE C	
		TOTAL	TOTAL	TOTAL	TOTAL
CONCRETE REMOVAL	CU YD	0.12	0.09		
REINFORCEMENT BARS (EPOXY)	POUND	11.4	8.6		
CLASS S.I. CONCRETE	CU YD	0.16	0.12		
EXPANSION BOLTS, 3/4"	EACH	18.0	14.0		

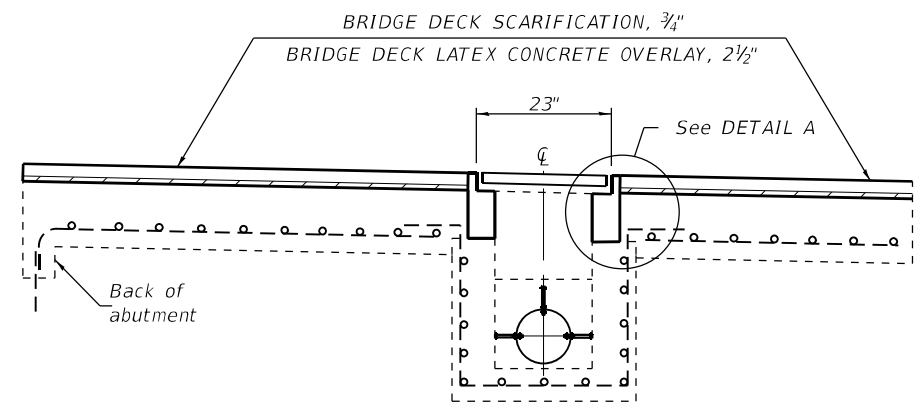
BILL OF MATERIAL

ITEM	UNIT	TOTAL
* INLET BOXES TO BE ADJUSTED (SPECIAL)	EACH	4.0

* QUANTITY INCLUDES 2 OF EACH TYPE C AND TYPE D



EXISTING PROFILE
 BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN



PROPOSED PROFILE
 BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

INLET BOX TO BE ADJUSTED
 STRUCTURE NO. 010-0025 E.B. & 010-0026 W.B.

SHEET 25 OF 25 SHEETS

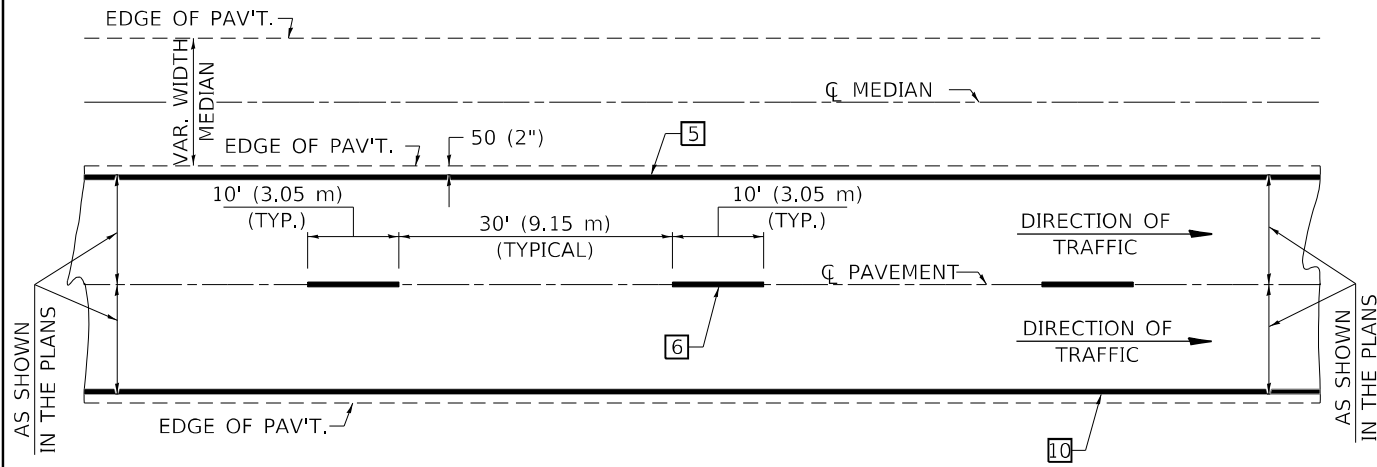
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	49
			CONTRACT NO. 70B78	
ILLINOIS FED. AID PROJECT				

Prairie Engineers, P.C.
 22484 Grosenbach Road
 Washington, IL 61571
 (217) 695-9493
 www.prairieengineers.com
 Professional design firm no. 184-005996
 Copyright Prairie Engineers, P.C. 2022

USER NAME = jmasset
 DESIGNED - ESN & SMJ
 CHECKED - SMJ & JZM
 PLOT SCALE = 0:2,0000 "/ in.
 DRAWN - AKN & JLM
 PLOT DATE = 3/22/2022
 CHECKED - SMJ
 REVISED -

DESIGNED - ESN & SMJ
 CHECKED - SMJ
 DRAWN - AKN & JLM
 CHECKED - SMJ
 REVISED -

CENTERLINE INTERSTATE OR MULTI-LANE TWO WAY DIVIDED HIGHWAY

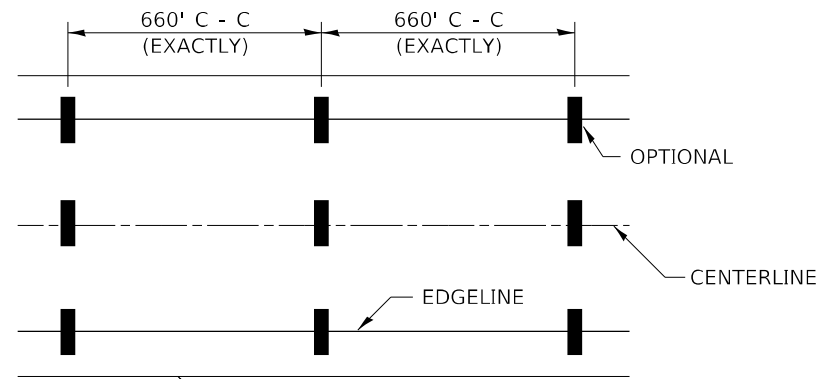


NOTE: PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.

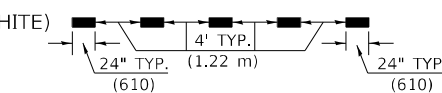
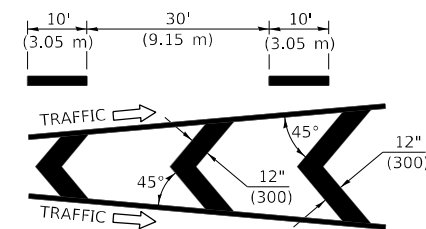
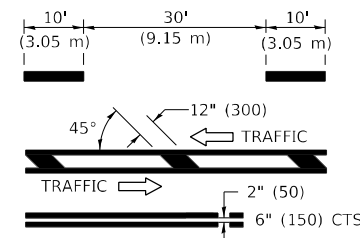
NOTE: SEE ARTICLES 780.04 & 781.03 FOR LOCATION OF STRIPES AND MARKERS RELATIVE TO EDGES OR JOINTS.

FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO STANDARD 781001.

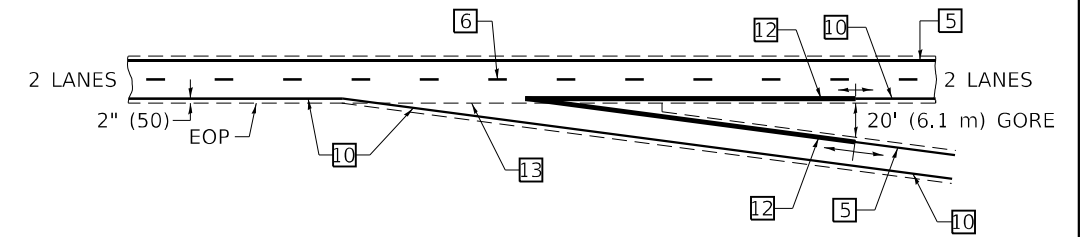
TYPICAL PAVEMENT MARKING LEGEND



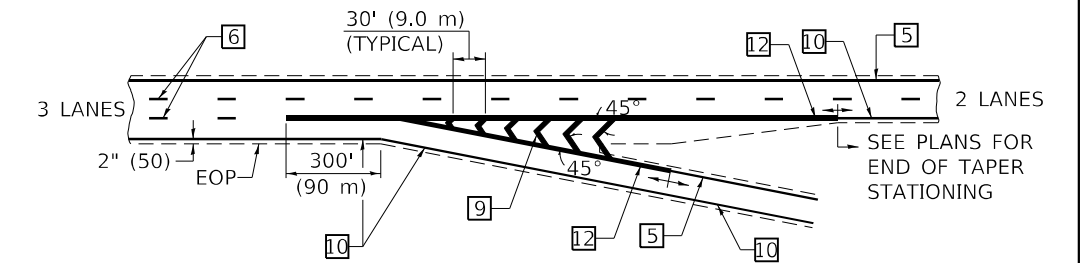
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 6" (150) SOLID (YELLOW)
- 6 6" (150) SKIP-DASH (WHITE)
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 6" (150) LANE LINE EXTENSIONS (WHITE)



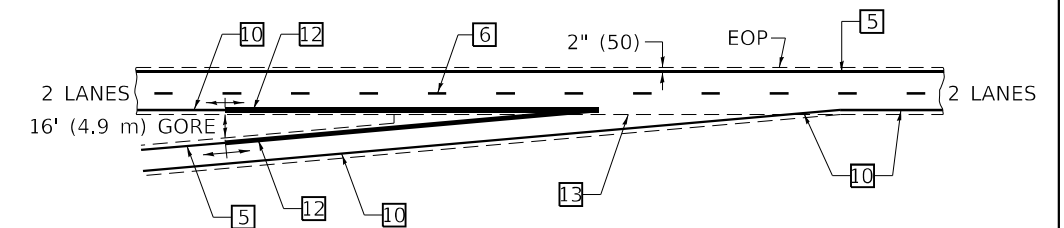
TYPICAL EXIT RAMP TERMINAL



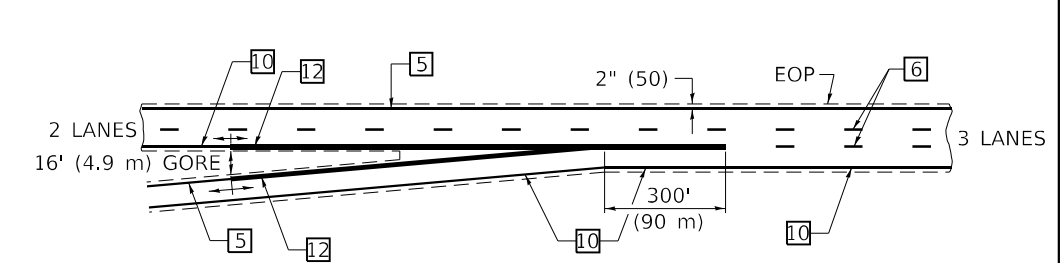
EXIT RAMP TERMINAL with EXCLUSIVE (auxiliary) LANE



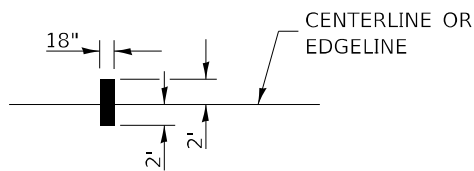
TYPICAL ENTRANCE RAMP TERMINAL



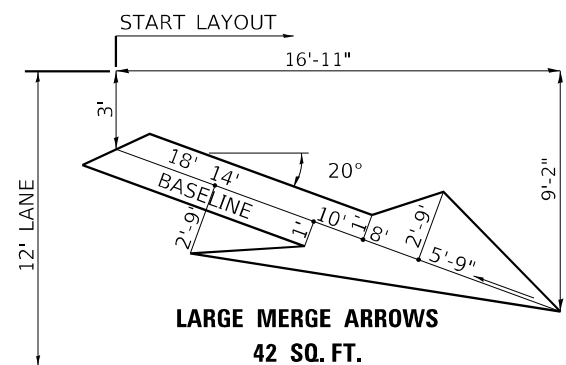
ENTRANCE RAMP TERMINAL with EXCLUSIVE LANE



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



AERIAL SPEED CHECK ZONES



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800BBBB

MODEL: Plan01
FILE: NAME: 116383301B1011901_PFB_193-025_D5_Varibus_Phase_HillWork_Order_2\Drawings\CADD_Sheets\05708785-1\Detail-05_7800BBBB.dgn

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 665-0403
www.prairieengineers.com
professional design firm no. 1544005965
© Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan
DESIGNED -
DRAWN -
CHECKED -
DATE -
PLOT SCALE = 40.0000 1 / in.
PLOT DATE = 3/22/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISI

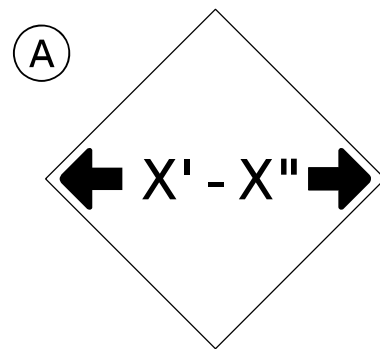
REVISI
REVISI
REVISI
REVISI

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING (INTERSTATE & MULTI-LANE APPLICATIONS)

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

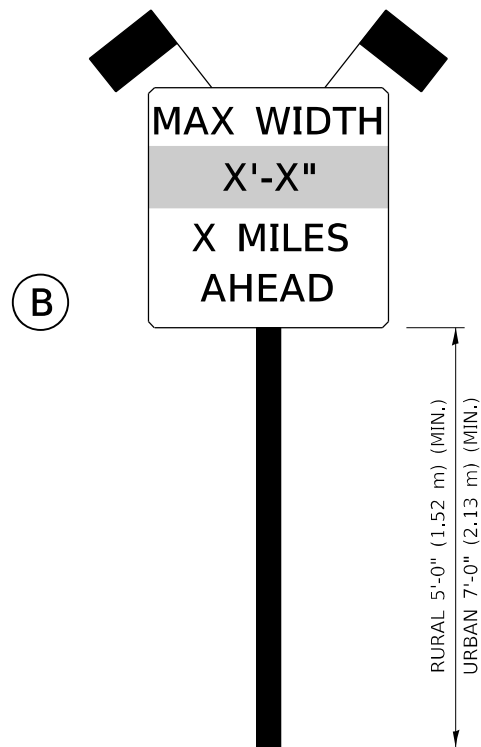
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	51
CONTRACT NO. 70B78				
ILLINOIS FED. AID PROJECT				



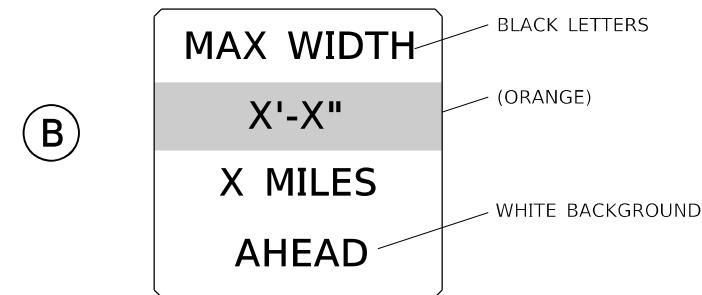
W12-2(O)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(O)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



**W12-I103(O)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS**

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

MODEL SHEET
FILE NAME: \\hbs301b1\01_1901_PFB_193-025_D5_Voribus_Phase_HilWork_Order_2\Drawings\CADD_Sheets\05708785-eh-detail-05_X7200201.dgn

Prairie Engineers, P.C.
404 N. Main Street
Columbia, IL 62238
(217) 605-0403
www.prairieengineers.com
PROFESSIONAL DESIGN FIRMS NO. 1544005965
© Copyright Prairie Engineers of Illinois, P.C. 2022

USER NAME = Bbrennan	DESIGNED -	REVISED -
PLOT SCALE = 40.0000 1 / in.	DRAWN -	REVISED -
PLOT DATE = 3/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING

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

DISTRICT 5 DETAIL NO. X7200201				
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10-6B)BR-1	CHAMPAIGN	52	52
			CONTRACT NO. 70B78	
			ILLINOIS	FED. AID PROJECT