

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	1
		ILLINOIS	CONTRACT NO. 97846	

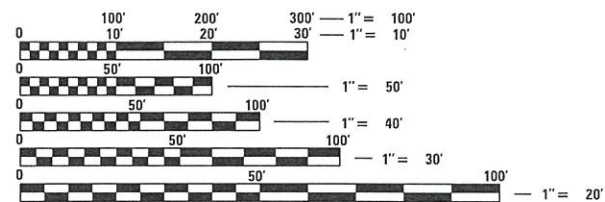
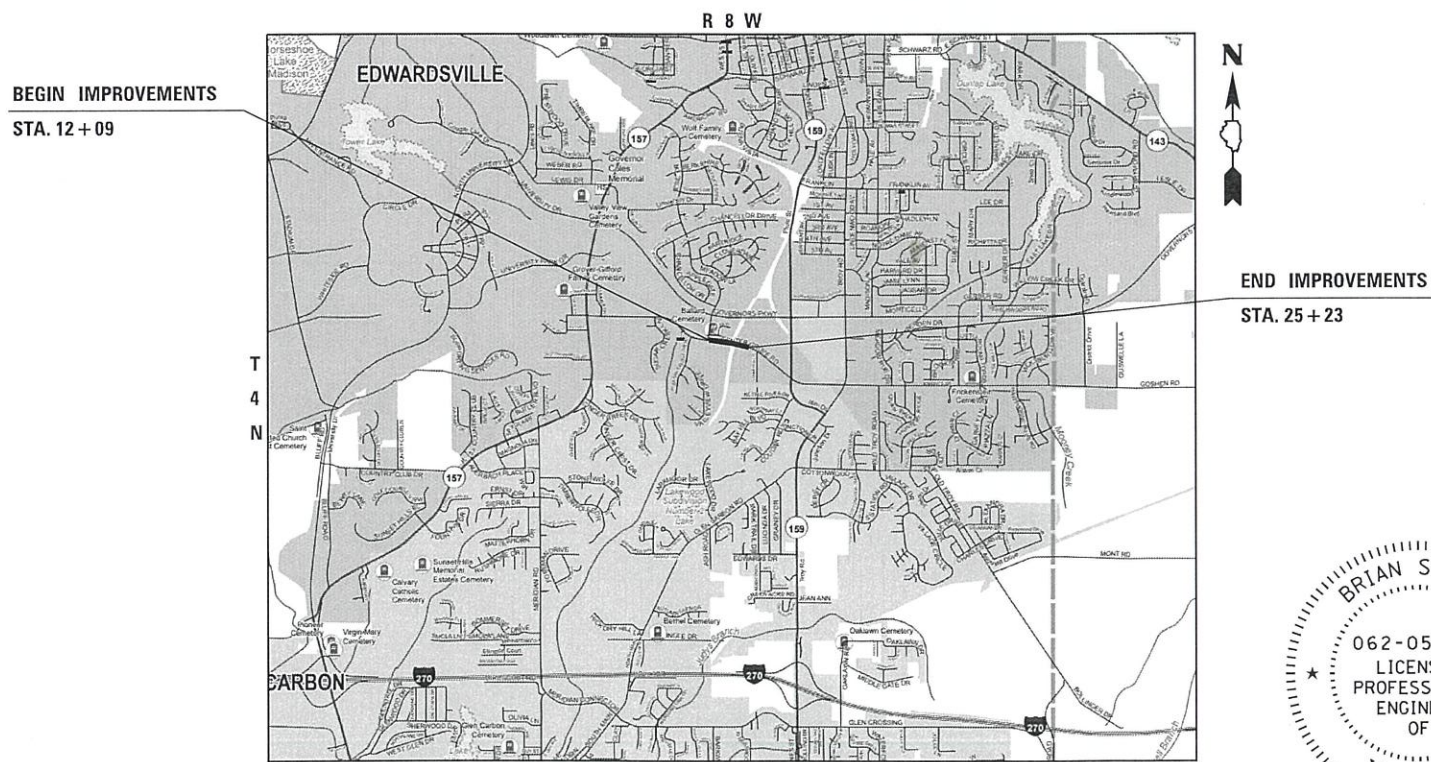
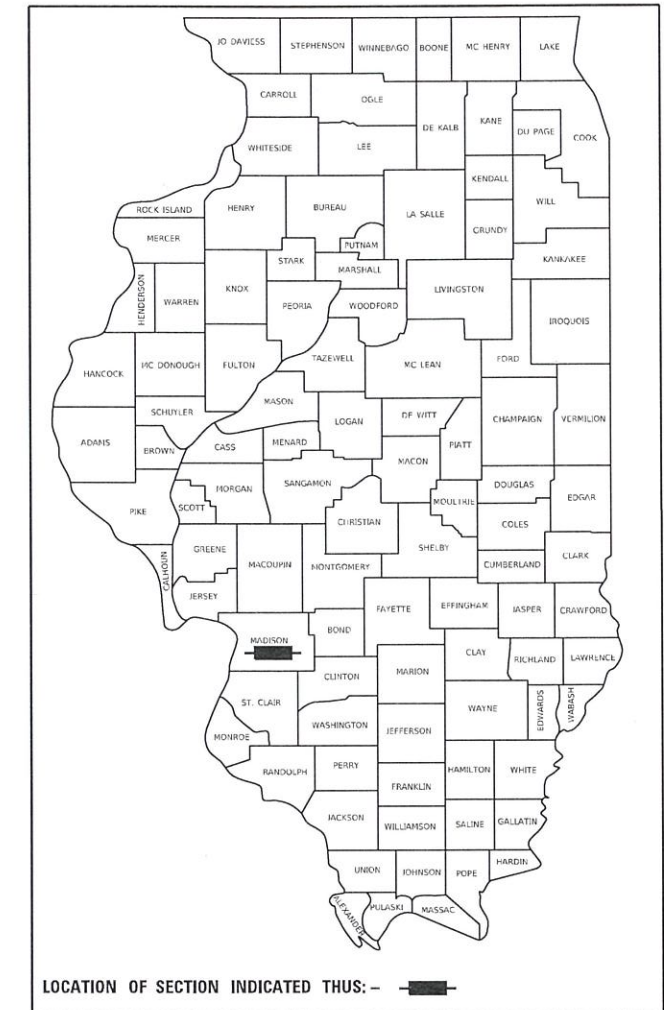
INDEX OF SHEETS

11-08-2024 LETTING ITEM 136

SHEET NO.	ITEM
1	COVER SHEET
2	GENERAL NOTES, COMMITMENTS, & HIGHWAY STANDARDS
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7	SCHEDULES
8-9	PLAN AND PROFILE SHEETS
10-11	TRAFFIC CONTROL DETOUR SHEET
12	PAVEMENT MARKING & GUARDRAIL SHEETS
13	REMOVAL SHEETS
14-37	STRUCTURE SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
STP FUNDS
CITY OF EDWARDSVILLE
CENTER GROVE ROAD BRIDGE REHABILITATION
FAU ROUTE 8874 (CENTER GROVE ROAD)
MADISON COUNTY
SECTION 20-00109-01-BR
PROJECT NO. K113(492)
JOB NO. C-98-027-24

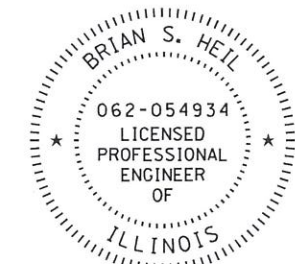


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DESIGN DESIGNATION
ROADWAY CLASSIFICATION = MAJOR COLLECTOR
DESIGN SPEED = 40 MPH
CURRENT ADT (2023) = 12,600
DESIGN YEAR ADT (2023) = 12,600

LOCATION MAP
NOT TO SCALE
GROSS LENGTH = 1,314 FT. = 0.249 MILE
NET LENGTH = 1,314 FT. = 0.249 MILE



Brian Heil 8/29/24 Date
BRIAN S. HEIL
IL P.E. NO. 062-054934
EXPIRES: 11/30/2025
SEAL APPLIES TO SHEETS 1-13

AGENCY RESPONSIBLE FOR LETTING	
APPROVED	8-29-2024 DATE
<i>Art B</i> CITY OF EDWARDSVILLE, MAYOR	
PASSED	9-5-2024 DATE
<i>[Signature]</i> DISTRICT 8 ENGINEER OF LOCAL ROADS & STREETS	
RELEASING FOR BID BASED ON LIMITED REVIEW	9-5-2024 DATE
<i>[Signature]</i> REGIONAL ENGINEER	

Collinsville
100 Lanter Court, Suite 1
Collinsville, IL 62234
618.345.2200

Belleville
1 South Church, Suite 200
Belleville, IL 62220
618.416.4688
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

St. Louis
720 Olive, Suite 700
St. Louis, MO 63101
314.588.8381

St. Charles
820 South Main, Suite 309
St. Charles, MO 63301
636.493.6277

UTILITIES

1. THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION WHICH MAY REQUIRE ADJUSTMENT, RELOCATION OR REMOVAL. REFER TO THE "STATUS OF UTILITIES TO BE ADJUSTED" SPECIAL PROVISION FOR ADDITIONAL INFORMATION.

AT&T (TELEPHONE)
160 W DIVISION ST
MARYVILLE, IL 62062
KEVIN URBANEK
(618) 346-6426

CITY OF EDWARDSVILLE (WATER & SEWER)
118 HILLSBORO AVENUE
EDWARDSVILLE, IL 62025
RYAN ZWIJACK
(618) 692-7535

CHARTER COMMUNICATIONS (COMMUNICATIONS)
815 CHARTER COMMONS
TOWN & COUNTRY, MO 63017
RICK GILREATH
(636) 387-6650

GENERAL


2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION.
3. THE CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE CONSTRUCTION LIMITS LINE SHOWN ON THE PLANS. ANY AREA DISTURBED BEYOND THESE LIMITS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL FERTILIZE, SEED AND MULCH ALL EARTH SURFACES DISTURBED BY CONSTRUCTION. FERTILIZER, SEEDING AND MULCH OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

PAVEMENT MARKING

5. THE PAVEMENT MARKING LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. PROPOSED CROSSWALKS AND STOP BARS SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER, IF NECESSARY, TO MATCH FIELD CONDITIONS.

APPROXIMATE QUANTITIES, SYMBOLS & ABBREVIATIONS

6. THE FOLLOWING SYMBOLS AND ABBREVIATIONS SUPPLEMENT OR SUPERCEDE HIGHWAY STANDARD 000001:

	FLARED END SECTION
AD	ALGEBRAIC DIFFERENCE IN GRADE
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION
BVCS	BEGINNING OF VERTICAL CURVE STATION
BO	BY OTHERS (USED IN CONJUNCTION WITH TBA & TBR)
CONSTR	CONSTRUCTION
CP	CONTROL POINT
ESMT	EASEMENT
ELEV	ELEVATION
EVCE	END OF VERTICAL CURVE ELEVATION
EVCS	END OF VERTICAL CURVE STATION
K	LENGTH OF VERTICAL CURVE PER PERCENT GRADE DIFFERENCE
N/F	NOW OR FORMERLY
O/C	OIL AND CHIP
PERM	PERMANENT
PVI	POINT OF VERTICAL INTERSECTION
PVC	POLYVINYL CHLORIDE PIPE
TCE	TEMPORARY CONSTRUCTION EASEMENT
TUP	TEMPORARY USE PERMIT
TBA	TO BE ADJUSTED
TBRL	TO BE RELOCATED
TYP	TYPICAL
W	WIDTH

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
442201-03	CLASS C AND D PATCHES
515001-04	NAME PLATE FOR BRIDGES
630001-13	STEEL PLATE BEAM GUARDRAIL
630116	BACK SIDE PROTECTION OF GUARDRAIL
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
631032-10	TRAFFIC BARRIER TERMINAL, TYPE 6A
701901-09	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

MODEL: Default
 FILE NAME: I:\0222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\0222030_cbr-general notes.dgn
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



USER NAME = breanna.frahm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 9/3/2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, COMMITMENTS, &
HIGHWAY STANDARDS**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	2
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		20101000	TEMPORARY FENCE	FOOT	127
		42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	140
		44000100	PAVEMENT REMOVAL	SQ YD	165
		44201337	CLASS C PATCHES, TYPE I, 9 INCH	SQ YD	19
		44201341	CLASS C PATCHES, TYPE II, 9 INCH	SQ YD	51
		44201345	CLASS C PATCHES, TYPE III, 9 INCH	SQ YD	117
		44201347	CLASS C PATCHES, TYPE IV, 9 INCH	SQ YD	172
		50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
		50102400	CONCRETE REMOVAL	CU YD	11.2
		50157300	PROTECTIVE SHIELD	SQ YD	207
		50300225	CONCRETE STRUCTURES	CU YD	22.9
		50300255	CONCRETE SUPERSTRUCTURE	CU YD	318.7
		50300260	BRIDGE DECK GROOVING	SQ YD	1,034
		50300300	PROTECTIVE COAT	SQ YD	1,734

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	59.5
		50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	12,691
		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	71,650
*		50901050	STEEL RAILING, TYPE SM	FOOT	332
*		50901720	BICYCLE RAILING	FOOT	328
*		50901750	PARAPET RAILING	FOOT	328
		51500100	NAME PLATES	EACH	1
*		63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	137.5
*		63000035	BACK SIDE PROTECTION OF GUARDRAIL	FOOT	187.0
*		63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
*		63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2
		63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2
		63200310	GUARDRAIL REMOVAL	FOOT	806
		67100100	MOBILIZATION	L SUM	1

* SPECIALTY ITEM

MODEL: Default
FILE NAME: I:\R222030 - Center Grove Road Bridge\CAADD\Microstation\CAADD Drawings\222030_cnc-500.dgn



USER NAME = breanna.frahm
DESIGNED -
DRAWN -
PLOT SCALE = 100.0000' / in.
CHECKED -
DATE = 9/4/2024

REVISOR -
REVISION -
REVISION -
REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97846	

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
	*	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28
	*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
	*	78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	93.6
	*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	6,636
	*	78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	331
	*	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	32
	*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	36
	*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	10
	*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	4
		78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	719
	*	Z0004552	APPROACH SLAB REMOVAL	SQ YD	113
	*	Z0010400	CLEANING BRIDGE SEATS	SQ FT	546
		Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	337
		Z0013798	CONSTRUCTION LAYOUT	L SUM	1

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
	*	Z0016702	DETOUR SIGNING	L SUM	1
	*	X0325748	ACRYLIC COATING	SQ YD	2.6
	*	X0900089	STEEL PLATE	L SUM	1
	*	X5509900	ABANDON AND FILL EXISTING STORM SEWER	FOOT	199
	*	X6331105	STEEL POSTS, MODIFIED	EACH	54
	*	X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	30
	#	Z0076600	TRAINEES	HOUR	1,500
	#	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,500

* SPECIALTY ITEM #0042

MODEL Default
FILE NAME: I:\2222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\2222030_01-500.dgn



USER NAME = breanna.frahm
DESIGNED -
DRAWN -
PLOT SCALE = 100.0000' / in.
CHECKED -
DATE -
PLOT DATE = 9/4/2024

REVISOR -
REVISED -
REVISOR -
REVISED -
REVISOR -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

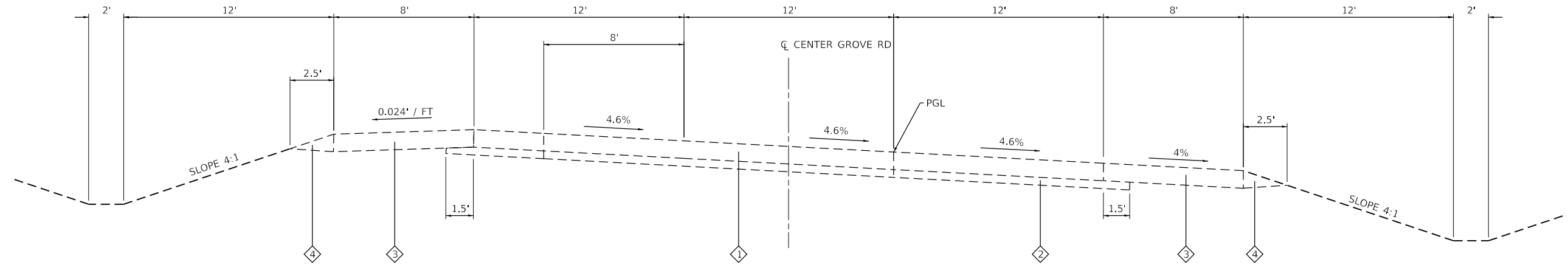
SUMMARY OF QUANTITIES

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

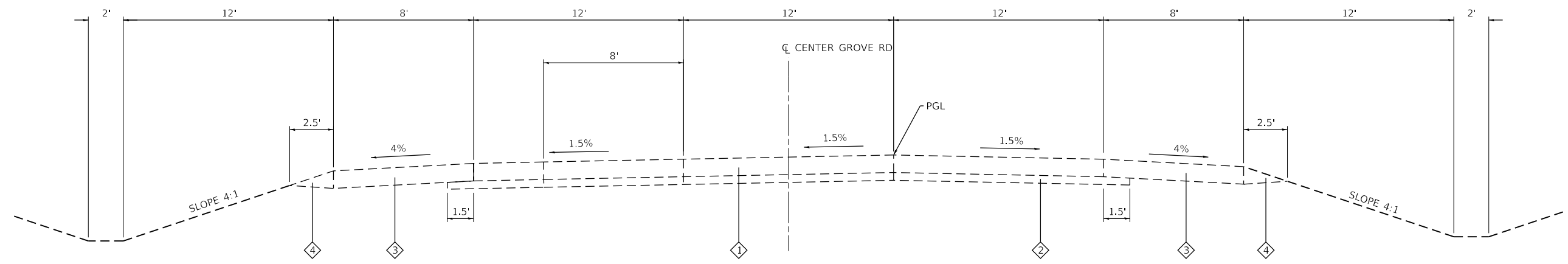
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	4

CONTRACT NO. 97846

ILLINOIS FED. AID PROJECT



EXISTING CENTER GROVE ROAD
STA. 21+81 TO STA. 25+17



EXISTING CENTER GROVE ROAD
STA. 10+00 TO STA. 21+81
BRIDGE OMISSION STA. 17+75 TO STA. 21+01

TYPICAL SECTION LEGEND

- ① PC CONCRETE PAVEMENT (9") W/ PAVEMENT FABRIC, TYPE A
- ② STABILIZED SUB-BASE (4")
- ③ BITUMINOUS SHOULDERS (9")
- ④ AGGREGATE SHOULDERS, TYPE B

MODEL: Default; FILE NAME: I:\222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_01c.dwg

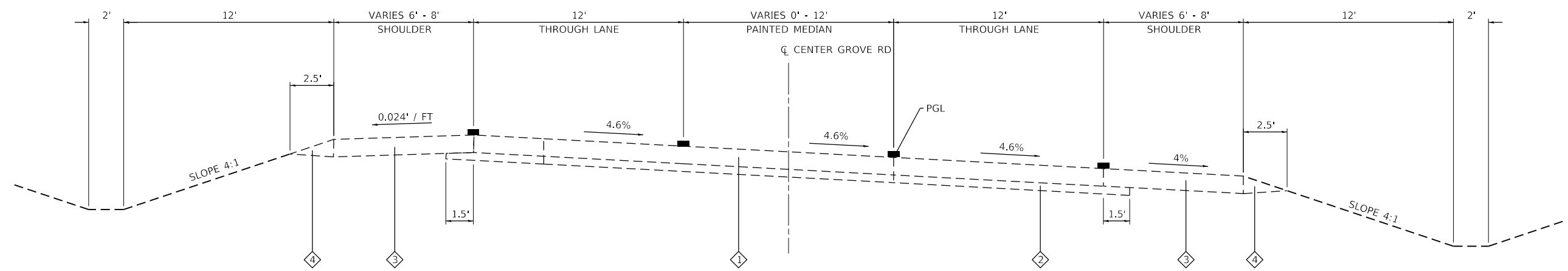


USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

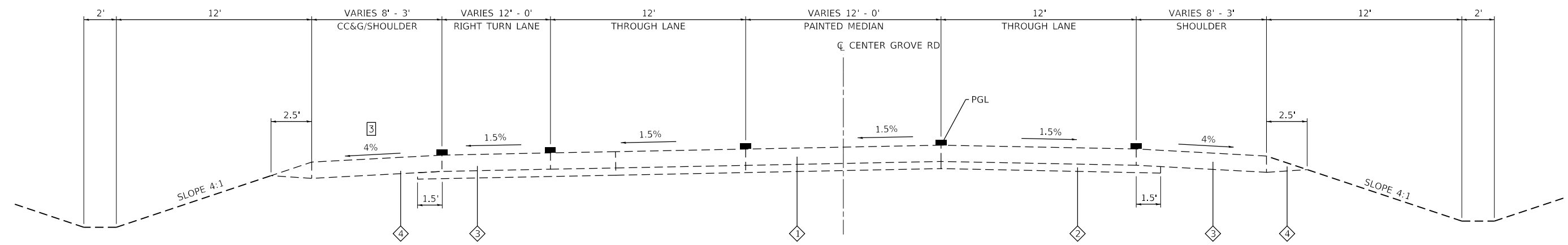
TYPICAL SECTIONS			
SCALE: NTS	SHEET 1	OF 2 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97846	



PROPOSED CENTER GROVE ROAD

STA. 21+81 TO STA. 29+90



PROPOSED CENTER GROVE ROAD

STA. 12+09 TO STA. 21+81
BRIDGE OMISSION STA. 17+75 TO STA. 21+01

TYPICAL SECTION LEGEND

- ① PC CONCRETE PAVEMENT (9") W/ PAVEMENT FABRIC, TYPE A
- ② STABILIZED SUB-BASE (4")
- ③ BITUMINOUS SHOULDERS (9")
- ④ AGGREGATE SHOULDERS, TYPE B

- ① TRANSITION FROM 1.5% TO 4.6% FROM STA. 21+80.69 TO STA. 25+00
- ② TRANSITION FROM 4.6% TO 1.5% FROM STA. 27+33.50 TO STA. 30+00
- ③ FROM STA. 12+09 TO STA. 14+70 EDGE CONDITION IS B6.24 CURB & GUTTER

MODEL: Default; FILE NAME: I:\0222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_01cysyl.dgn



USER NAME = breanna.frahm
DESIGNED -
DRAWN -
PLOT SCALE = 10.0000' / in.
CHECKED -
DATE -
PLOT DATE = 9/3/2024

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

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS
SCALE: NTS SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	6
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				

PAVEMENT

STATION	STATION	OFFSET	PVT CON PCC BR APP SL (SQ YD)	CL C PATCH T1 9 (SQ YD)	CL C PATCH T2 9 (SQ YD)	CL C PATCH T3 9 (SQ YD)	CL C PATCH T4 9 (SQ YD)
12+78	12+81	LT		1			
13+18	13+21	LT		1			
13+38	13+41	LT		1			
13+58	13+61	LT		1			
13+98	14+02	LT		2			
14+37	14+43	LT			9		
14+79	14+82	CL			12		
14+96	15+00	CL				17	
15+58	15+61	LT			5		
15+58	15+63	RT			7		
15+97	16+02	CL				21	
16+12	16+18	CL				22	
16+42	16+51	RT				15	
16+76	16+95	CL					79
17+57	17+72	CL	70				
21+04	21+19	CL	70				
21+77	21+85	RT				21	
22+15	22+23	LT				21	
22+52	22+55	RT		4			
22+78	22+81	LT			9		
22+78	22+96	RT					25
23+25	24+99	CL					37
23+58	23+61	RT		3			
23+96	24+04	RT			9		
24+35	24+43	RT		3			
24+75	24+82	RT		3			
24+99	25+23	RT					31
TOTAL			140	19	51	117	172

PAVEMENT MARKING

STATION	STATION	OFFSET	MOD URETH PM LTR-SYM SYM (SQ FT)	MOD URETH PM LINE 4 (FOOT)	MOD URETH PM LINE 6 (FOOT)	MOD URETH PM LINE 12 (FOOT)	RAISED REFL PAVT MKR (EACH)	DESCRIPTION
12+09	13+50	LT		296				DOUBLE YELLOW CL
12+09	13+50	LT		276				DOUBLE YELLOW CL
12+12		LT				32		STOP BAR
12+12	23+85	LT		1,177				LT WHITE EDGE
12+12	13+24	LT		111				LT LANE LINE
12+12	25+16	RT		1,302				RT WHITE EDGE
12+33		LT	15.6					RT ARROW
12+33	13+44	LT			102			GORE LINES 20' INTERVAL
13+01		LT	15.6					RT ARROW
13+50	14+12	LT		78				TWLTL
13+50	14+12	CL		78				TWLTL
13+93		LT	15.6					LT ARROW
14+07		LT	15.6					LT ARROW
14+26	16+72	CL					7	
14+26	17+17	LT			130			GORE LINES 20' INTERVAL
14+12	17+72	LT		720				DOUBLE YELLOW CL
14+26	23+86	LT					24	
14+12	23+86	CL		1,947				DOUBLE YELLOW CL
21+04	23+86	CL		563				DOUBLE YELLOW CL
21+48	23+70	LT			99			GORE LINES 20' INTERVAL
21+99	23+86	CL					5	
23+93		LT	15.6					LT ARROW
24+07		LT	15.6					LT ARROW
24+30	25+17	LT		88				LT WHITE EDGE
TOTAL			93.6	6,636	331	32	36	

REMOVAL

STATION	STATION	OFFSET	PAVEMENT REM (SQ YD)	GUARDRAIL REMOV (FOOT)	PAVMT MRKG REM WTR BL (SQ FT)	RAISD REF PM REFL REM (EACH)	DESCRIPTION
14+26	16+72	CL				7	
14+26	17+86	LT				10	
14+57	17+86	LT			110		SOLID WHITE
14+26	16+71	LT			102		TWTL
14+26	16+72	CL			103		TWTL
14+87	17+86	RT		303			
15+87	17+86	LT		203			
16+71	17+86	LT			77		DBL CL
17+57	17+74	CL	83				
20+90	21+99	LT			73		DBL CL
20+90	22+40	RT		151			
20+90	22+39	LT		149			
20+90	23+84	LT			98		SOLID WHITE
20+90	23+86	LT				8	
21+02	21+20	CL	82				
21+99	23+86	LT			78		TWTL
21+99	23+86	CL				5	
21+99	23+86	CL			78		TWTL
TOTAL			165	806	719	30	

GUARDRAIL

STATION	STATION	OFFSET	SPBGR TY A 6FT POSTS (FOOT)	BCK SD PROT OF GRDRL (FOOT)	TR BAR TRM T1 SPL TAN (EACH)	TRAF BAR TERM T6 (EACH)	TRAF BAR TERM T6A (EACH)	TERMINAL MARKER - DA (EACH)	GRDRAIL REF TYPE A (EACH)	BARR WALL REF TYPE C (EACH)	STEEL POSTS MODIFIED (EACH)
16+35		RT			1			1			
16+35	21+80	RT							7		
16+97		LT			1			1			
16+97	17+72	LT									22
16+97	17+72	LT	62.5						1		
17+10	17+72	LT		63							
17+72		LT					1				
17+72		RT									
17+72	21+05	LT								4	
21+05		LT				1					
21+05		RT					1				
21+05	22+29	LT		125							
21+05	22+42	LT	75.0						2		
21+05	22+42	LT									32
21+80		RT			1			1			
22+42		LT			1			1			
TOTAL			137.5	187.0	4	2	2	4	10	4	54

CONSTRUCTION LAYOUT

1	L SUM
---	-------

DETOUR SIGNING

1	L SUM
---	-------

MOBILIZATION

1	L SUM
---	-------

MODEL: Default; FILE: Model; Title: 0222030 - Center Grove Road Bridge/CAADD; Microstation: CAADD; Drawings: 0222030_01c-sched.tbl.dgn



USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULES

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

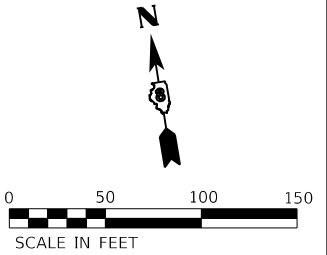
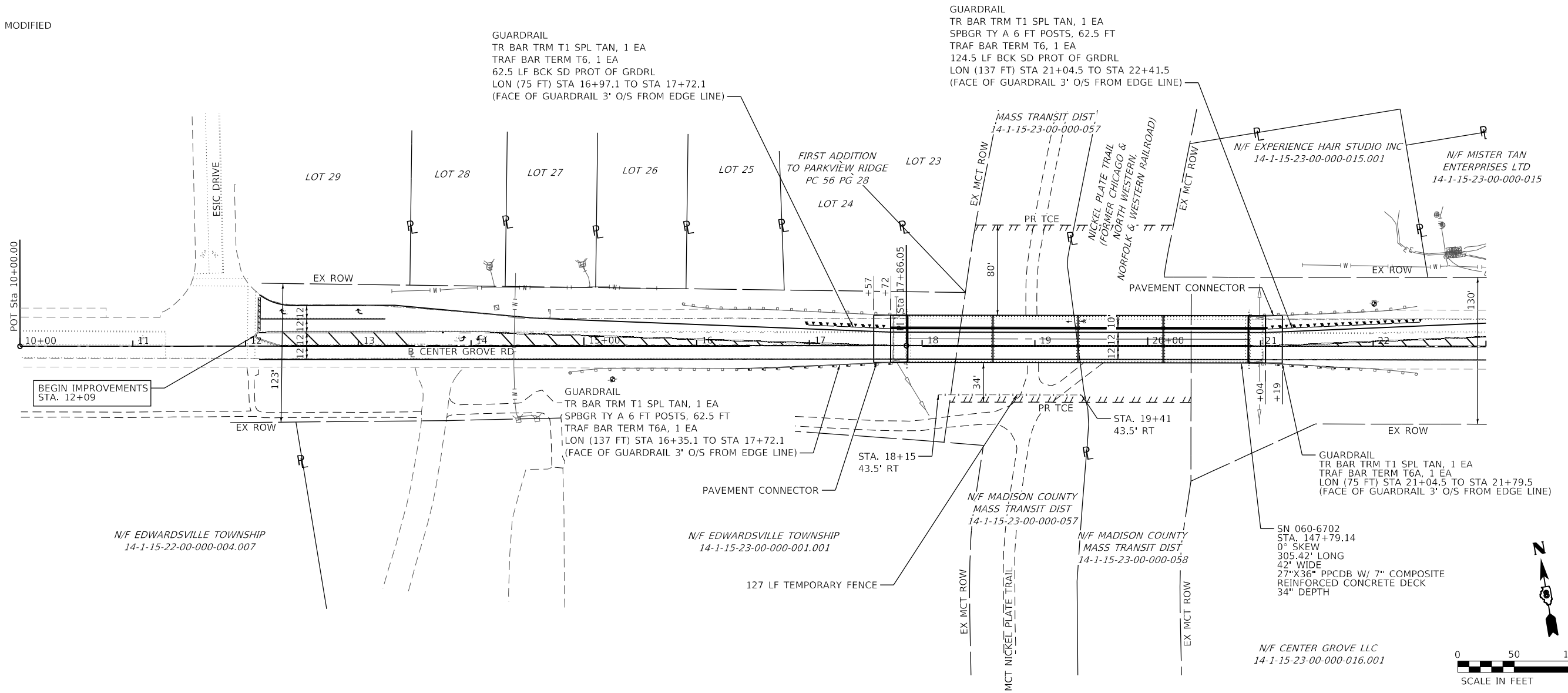
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	7
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

LEGEND

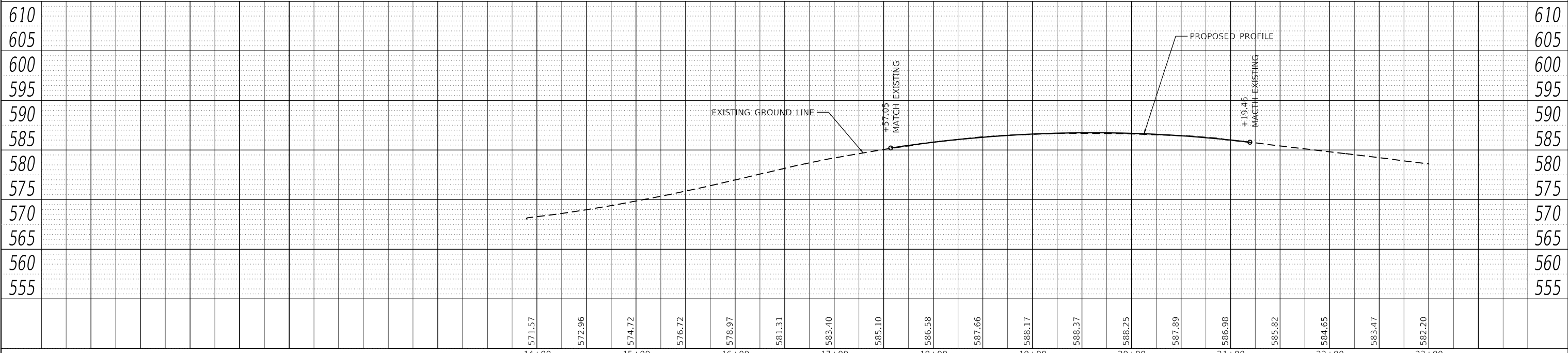
• STEEL POSTS, MODIFIED

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	NO.	



*NOTE: PROFILE IS FROM EXISTING PLANS, NO VERTICAL SURVEY PERFORMED



MODEL: 222030_sht-plnprf1
FILE NAME: H:\222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_sht-plnprf.dgn

OATES ASSOCIATES
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

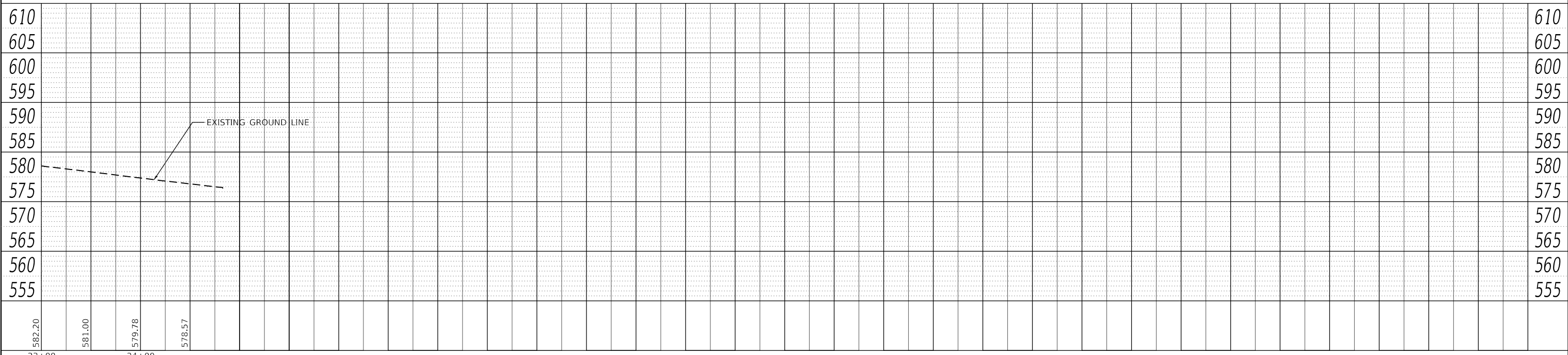
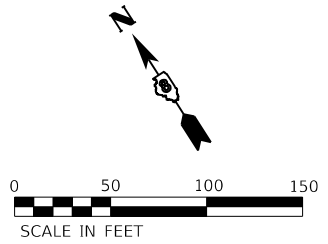
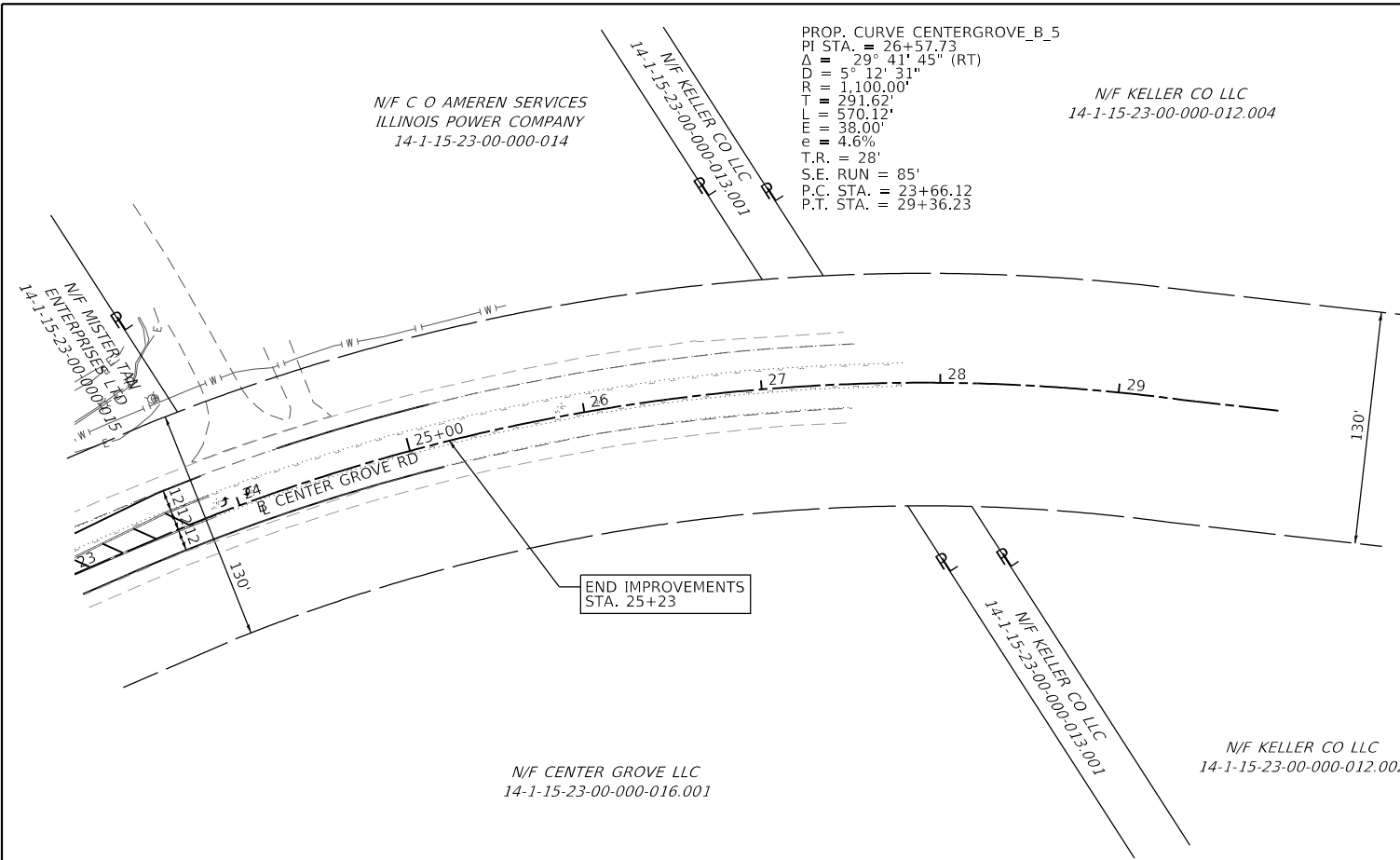
PLAN AND PROFILE SHEETS

SCALE: 1" = 50' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	8
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	CADD FILE NAME	













MODEL: 222030_sht-plnprf2
 FILE NAME: H:\222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_sht-plnprf.dgn

 OATES ASSOCIATES www.oatesassociates.com ILLINOIS DESIGN FIRM LICENSE NO.: 184,001115	USER NAME = breanna.frahm PLOT SCALE = 100.0000' / in. PLOT DATE = 9/3/2024	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE SHEETS		SCALE: 1" = 50' SHEET 2 OF 2 SHEETS STA. TO STA.	F.A.U. RTE. 8874 SECTION 20-00109-01-BR COUNTY MADISON TOTAL SHEETS 37 SHEET NO. 9 CONTRACT NO. 97846	ILLINOIS FED. AID PROJECT
---	---	--	--	---	--------------------------------	--	--	--	---------------------------



TRAFFIC LEGEND

- ①  W20-2 (48" X 48") (FLUORESCENT ORANGE)
- ②  M5-1L (24" X 24") (FLUORESCENT ORANGE)
- ③  M5-1R (24" X 24") (FLUORESCENT ORANGE)
- ④  M4-8 (24" X 12") (ORANGE)
- ⑤  M4-8a (24" X 18") (ORANGE)
- ⑥  M6-3 (21" X 15") (FLUORESCENT ORANGE)
- ⑦  SPECIAL (12" X 12") (ORANGE)
-  TYPE III BARRICADE
-  ROAD CLOSURE
-  CHANGEABLE MESSAGE SIGN

MODEL: Default
 FILE NAME: I:\R222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_chn-detour.dgn
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



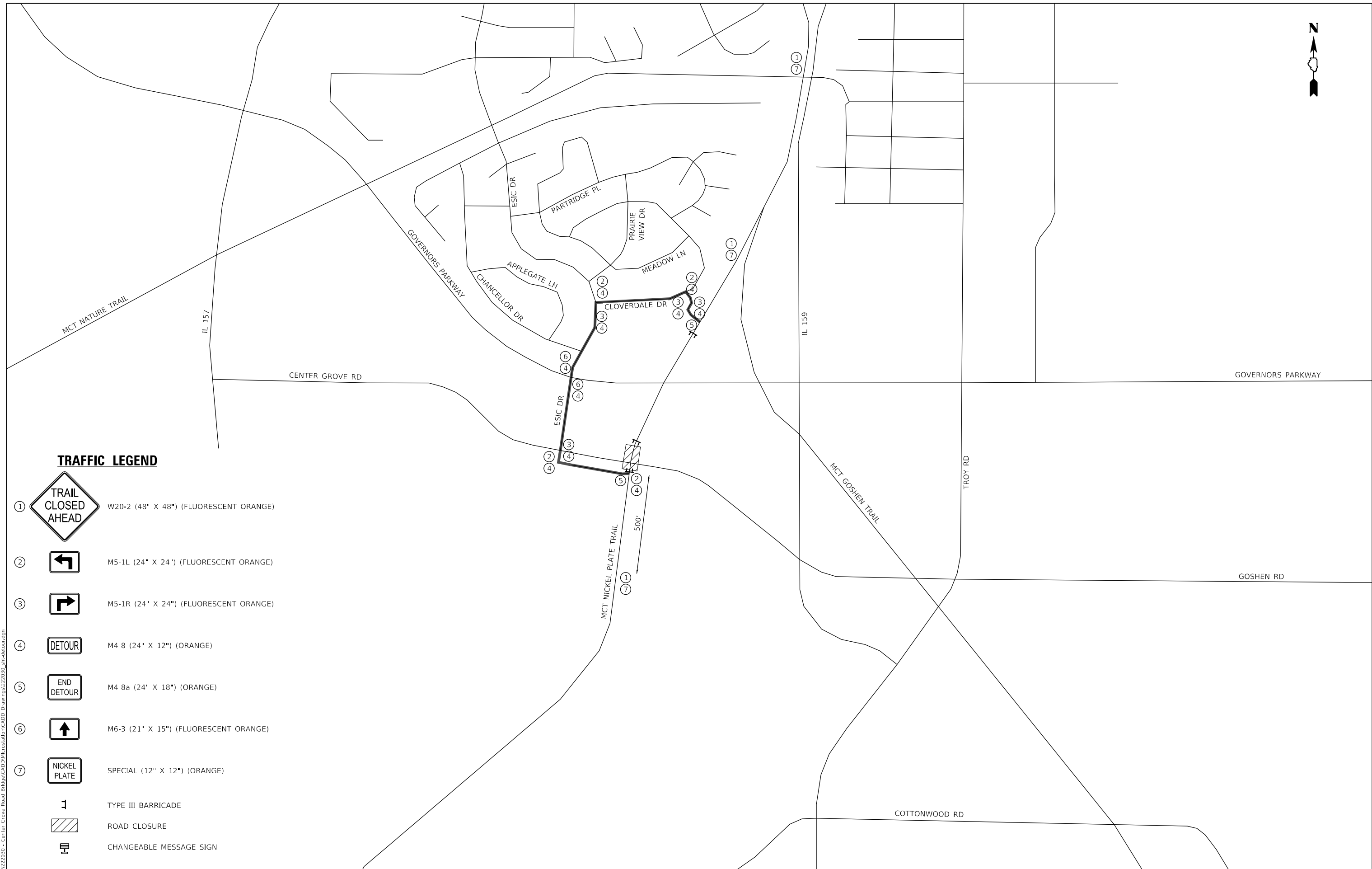
USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**











**TRAFFIC CONTROL DETOUR SHEET
CENTER GROVE RD**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	10
CONTRACT NO. 97846				
		ILLINOIS	FED. AID PROJECT	



TRAFFIC LEGEND

- ①  W20-2 (48" X 48") (FLUORESCENT ORANGE)
- ②  M5-1L (24" X 24") (FLUORESCENT ORANGE)
- ③  M5-1R (24" X 24") (FLUORESCENT ORANGE)
- ④  M4-8 (24" X 12") (ORANGE)
- ⑤  M4-8a (24" X 18") (ORANGE)
- ⑥  M6-3 (21" X 15") (FLUORESCENT ORANGE)
- ⑦  SPECIAL (12" X 12") (ORANGE)
-  TYPE III BARRICADE
-  ROAD CLOSURE
-  CHANGEABLE MESSAGE SIGN

MODEL: Default
 FILE NAME: I:\R222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_chn-detour.dgn
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



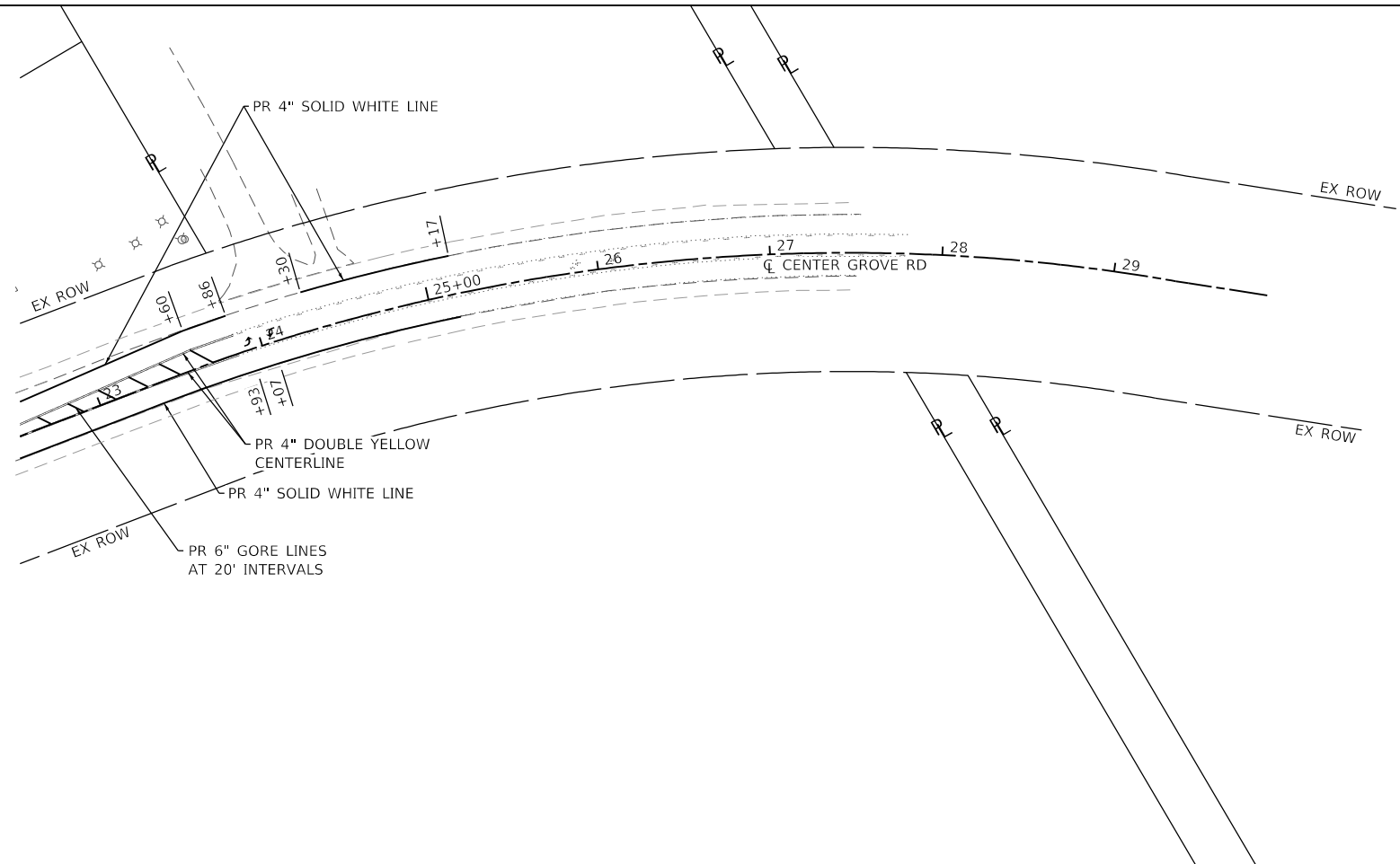
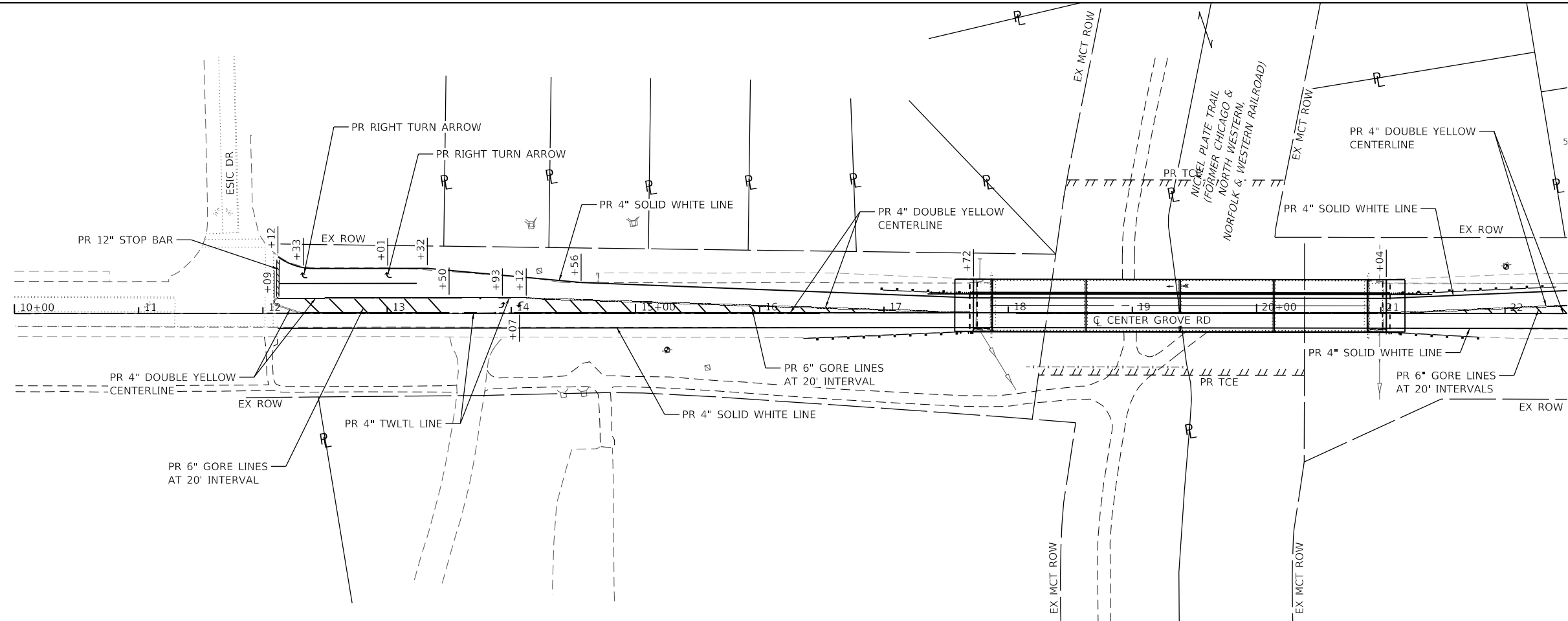
USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETOUR SHEET
MCT NICKEL PLATE TRAIL**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	11
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				



MODEL: Default
 FILE NAME: I:\0222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_01c.dwg
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



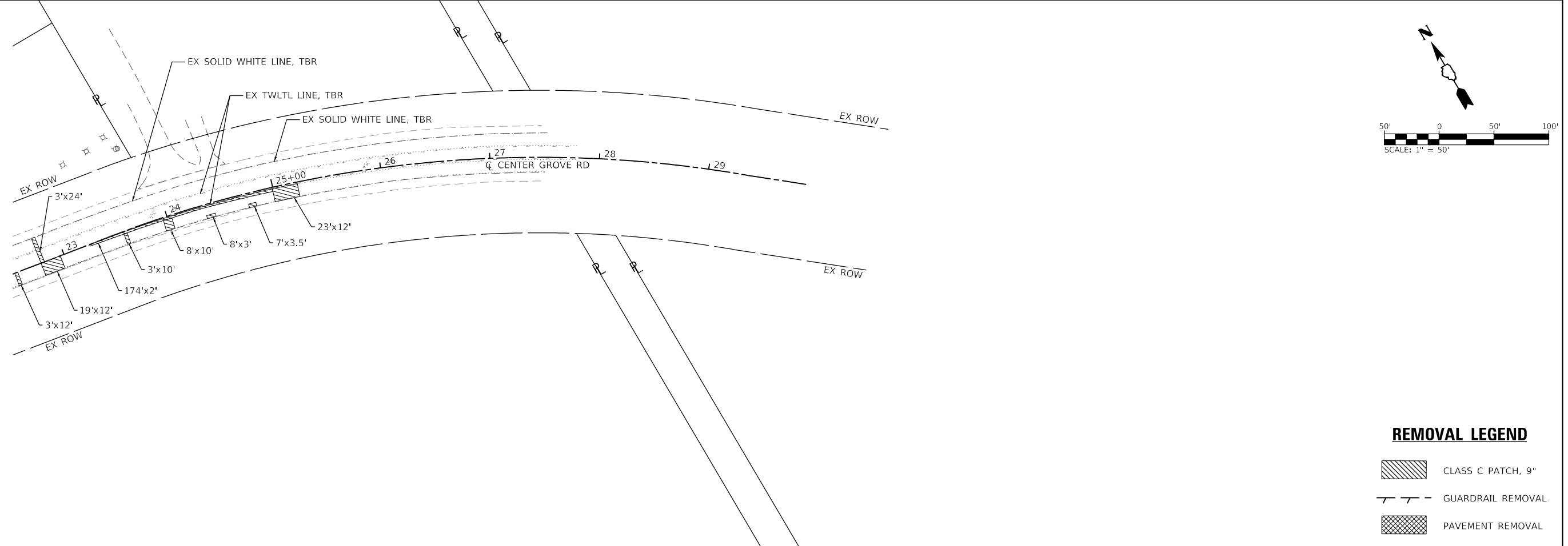
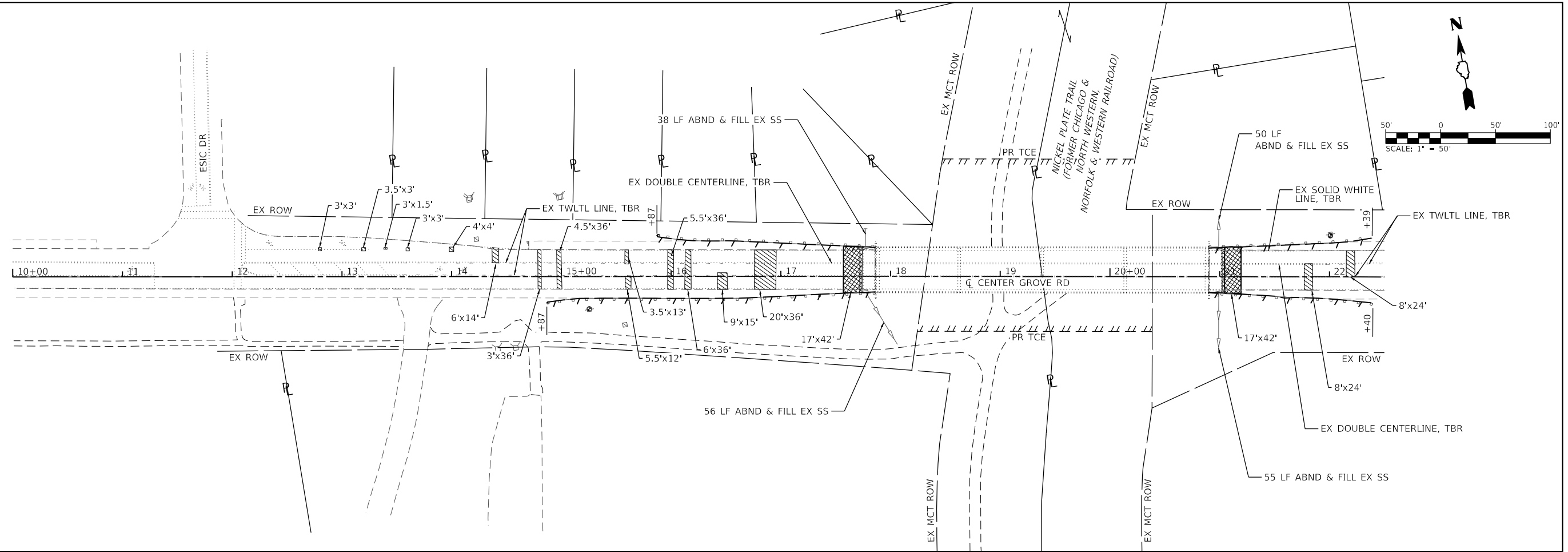
USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




PAVEMENT MARKING SHEET

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

F.A.U. RTE. 8874	SECTION 20-00109-01-BR	COUNTY MADISON	TOTAL SHEETS 37	SHEET NO. 12
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				



REMOVAL LEGEND

	CLASS C PATCH, 9"
	GUARDRAIL REMOVAL
	PAVEMENT REMOVAL

MODEL: Default
 FILE NAME: I:\0222030 - Center Grove Road Bridge\CADD\Microstation\CADD Drawings\222030_01c-remove.dgn
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



USER NAME = breanna.frahm	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/3/2024	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	13
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				

Existing Structure: S.N. 060-6702 was built 1989 as F.A.U. Rte. 8874 and consists of four spans of PPC deck beams supported by open concrete abutments founded on steel H-Piles and multiple column piers on footings founded on steel H-Piles. Back-to-back abutment length is 305'-5" and the out-to-out width is 42'-0". The existing superstructure is to be removed and replaced. Traffic is to be detoured during construction.

Salvage: None

RE-BUILT 202X BY
CITY OF EDWARDSVILLE
SEC. 20-00109-01-BR
F.A.U. RTE. 8874
STA. 147+79.14
STR. NO. 060-6702
LOADING HL-93

NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

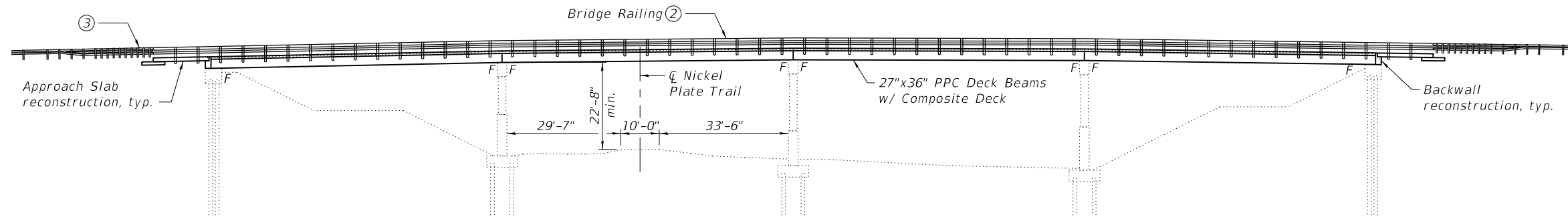
LOADING HL-93
No Allowance For Future
Wearing Surface

DESIGN STRESSES
FIELD UNITS

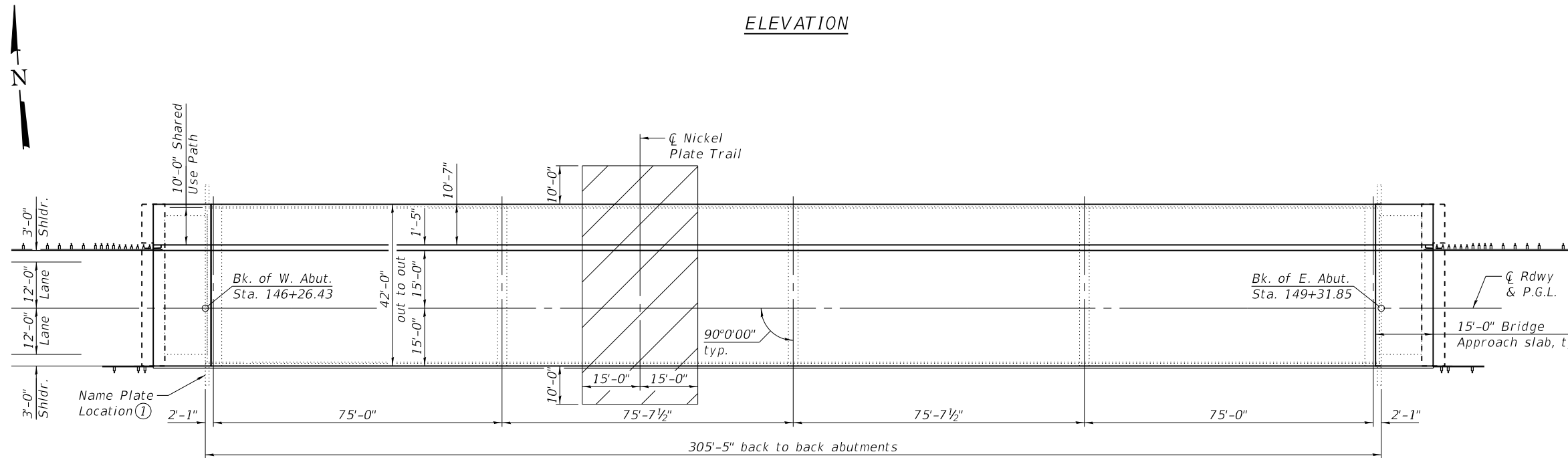
$f'_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

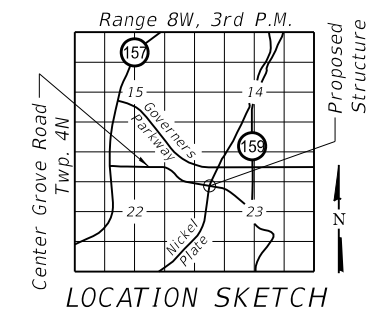
$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi (1/2" \emptyset low lax. strands)
 $f_{pb} = 201,960$ psi (1/2" \emptyset low lax. strands)



ELEVATION



PLAN



LOCATION SKETCH

Notes:

- ① New Name Plate shall be placed below existing Name Plate on wingwall.
- ② See Cross Section on Sheet 3 of 24 for Bridge Railing types.
- ③ Traffic Barrier Terminal, Type 6 in northwest and northeast quadrants. Traffic Barrier Terminal, Type 6A in southwest and southeast quadrants.
- ④ Hatching prop indicates limit of protective shield. Protective shield to be in place at all times during construction when trail is open.
- ⑤ Existing "CENTER GROVE RD" signs on North and South fascias shall be removed and reinstalled on the new fascia beams as directed by the Resident Engineer. Cost included with Removal of Existing Superstructure.

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO LRFD Bridge Design Specifications.

LICENSED STRUCTURAL ENGINEER
DANIEL GEORGE LUTZ
081 006772
STATE OF ILLINOIS
DATE: 09/04/2024
EXPIRATION: 11/11/2024

CENTER GROVE ROAD
OVER NICKEL PLATE TRAIL
F.A.U. 8874 - SEC 20-00109-01-BR
MADISON COUNTY
STA. 147+79.14
STRUCTURE NO. 060-6702

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-001-General Plan & Elevation.dgn



USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 060-6702

SHEET 1 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	14
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of beams. Cleaning shall be done by sandblasting the keyway areas between the top of the beam and the bottom edge of the key.

Reinforcement bars designated (E) shall be epoxy coated.

Do not scale these drawings.

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products for deck beams using the steel comb method.

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

Excavation and backfill required behind abutments shall be included in the cost of Removal of Existing Superstructures. Excavated material may be used as backfill and shall be compacted to the satisfaction of the Resident Engineer. Any excess material shall be disposed of by the Contractor.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	-	-	1
Concrete Removal	Cu. Yd.	-	11.2	11.2
Protective Shield	Sq. Yd.	207	-	207
Concrete Structures	Cu. Yd.	-	22.9	22.9
Concrete Superstructure	Cu. Yd.	318.7	-	318.7
Bridge Deck Grooving	Sq. Yd.	1,034	-	1,034
Protective Coat	Sq. Yd.	1,734	-	1,734
Concrete Superstructure (Approach Slab)	Cu. Yd.	59.5	-	59.5
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	12,691	-	12,691
Reinforcement Bars, Epoxy Coated	Pound	67,820	3,830	71,650
Steel Railing, Type SM	Foot	332	-	332
Bicycle Railing	Foot	328	-	328
Parapet Railing	Foot	328	-	328
Name Plates	Each	1	-	1
Approach Slab Removal	Sq. Yd.	113	-	113
Cleaning Bridge Seats	Sq. Ft.	-	546	546
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	337	337
Acrylic Coating	Sq. Yd.	2.6	-	2.6
Steel Plate	L. Sum	1	-	1

INDEX OF SHEETS

Sheet No.	Description
1	General Plan & Elevation
2	General Data
3	Superstructure
4	Superstructure Details
5	Steel Railing, Type SM
6-7	Bicycle Railing
8	Span 2 Runoff Guard
9-10	Bridge Approach Slab Details
11	27" x 36" PPC Deck Beam
12	27" x 36" PPC Deck Beam Details
13	Concrete Removal
14	Abutments
15-16	Concrete Repair
17-24	Existing Plans

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-002-General Data.dgn



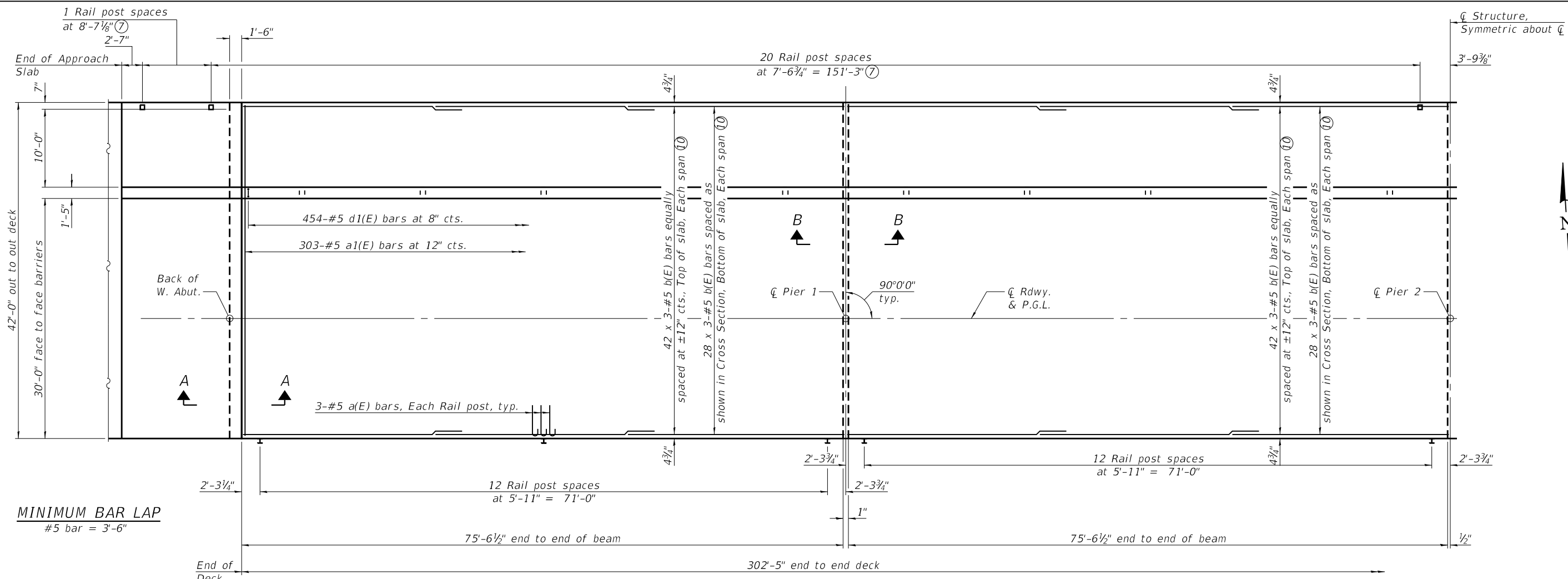
USER NAME =	DESIGNED - KBC	REVISED -
	CHECKED - DGL	REVISED -
PLOT SCALE =	DRAWN - KBC	REVISED -
PLOT DATE = 9/4/2024	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

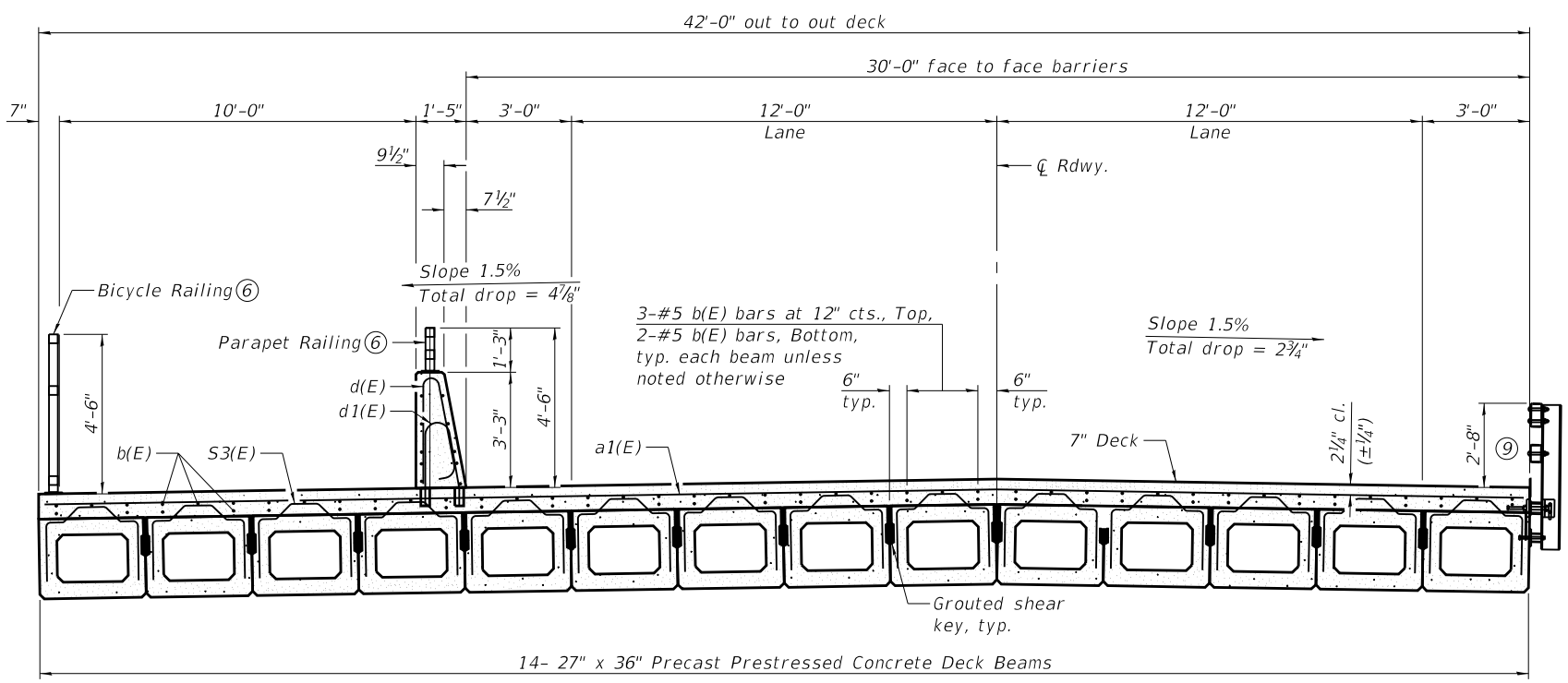
**GENERAL DATA
STRUCTURE NO. 060-6702**

SHEET 2 OF 24 SHEETS

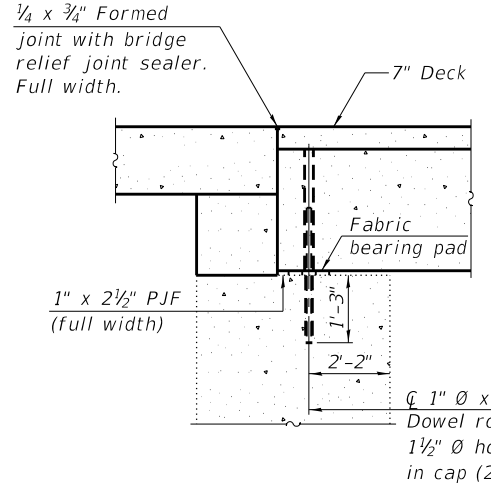
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	15
ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 97846	



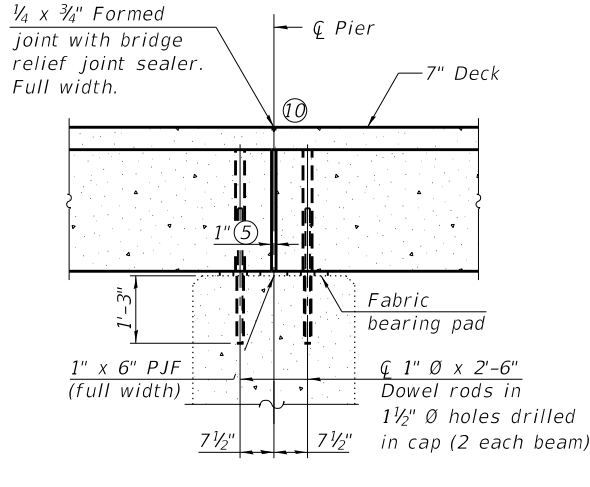
PARTIAL PLAN



CROSS SECTION
(Looking East)



SECTION A-A



SECTION B-B

- Notes:**
- ① See sheet 4 of 24 for Superstructure Details and Bill of Material.
 - ② Bars indicated thus 42x3-#5 etc. indicates 42 lines of bars with 3 lengths per line.
 - ③ Concrete deck shall be placed prior to casting approach slab.
 - ④ See sheet 12 of 24 for fabric bearing pad details.
 - ⑤ 1" Joint shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.
 - ⑥ For Parapet Railing and Bicycle Railing details, see sheets 6 and 7 of 24.
 - ⑦ Bicycle Railing post spacing shown, Parapet Railing post spacing is the same.
 - ⑧ See sheet 8 of 24 for runoff guards in span 2.
 - ⑨ For a(E) bars see sheet 4 of 24 for Railing Anchorage Plan Details.
 - ⑩ b(E) bars shall not extend over the $\bar{\bar{C}}$ pier.

FILE NAME: H:\P\222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-003-Superstructure.dgn



USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

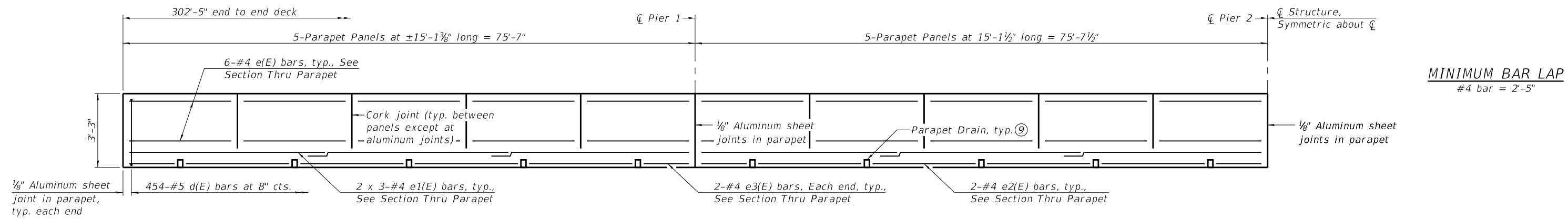
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 060-6702

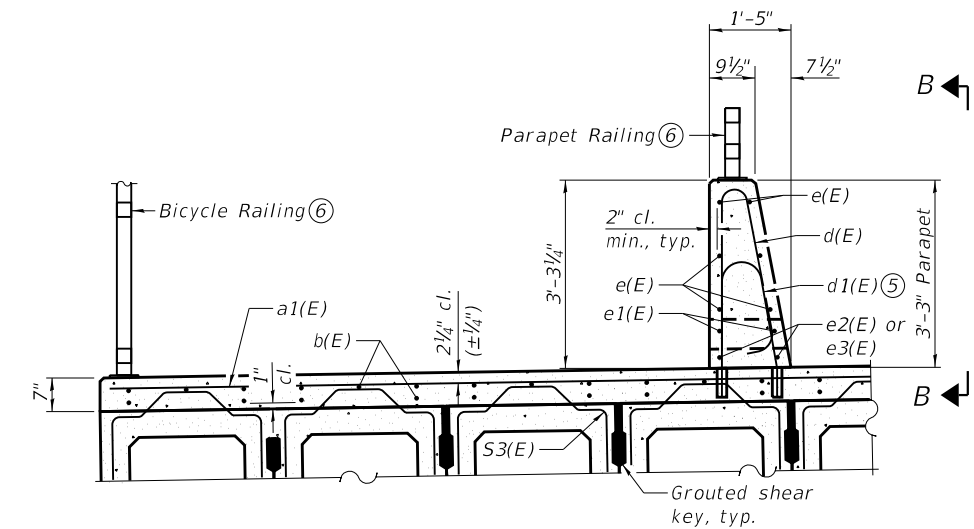
SHEET 3 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	16
CONTRACT NO. 97846				

ILLINOIS FED. AID PROJECT

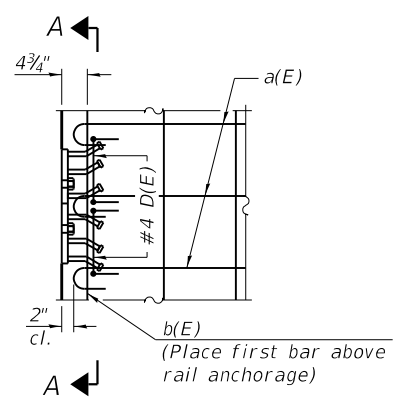


MINIMUM BAR LAP
#4 bar = 2'-5"

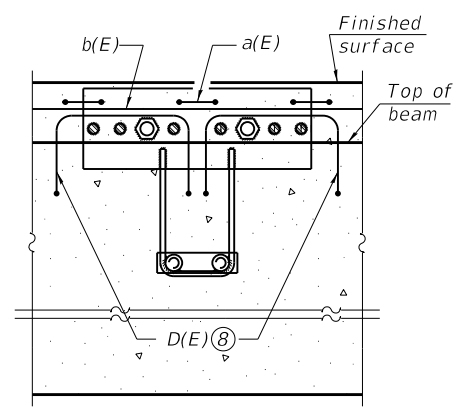


SECTION THRU NORTH PARAPET

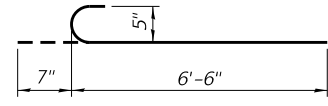
INSIDE ELEVATION OF PARAPET



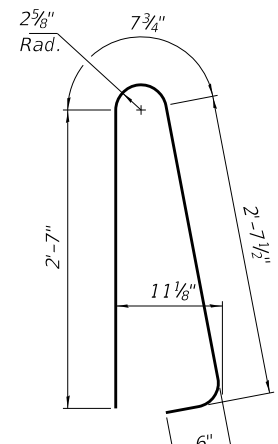
RAILING ANCHORAGE PLAN



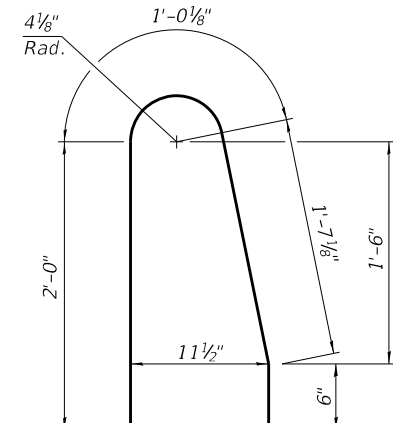
SECTION A-A



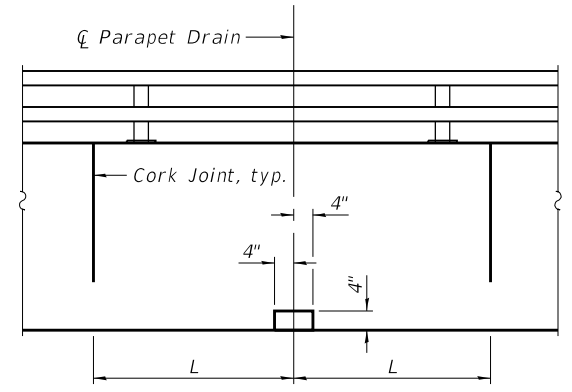
BAR a(E)



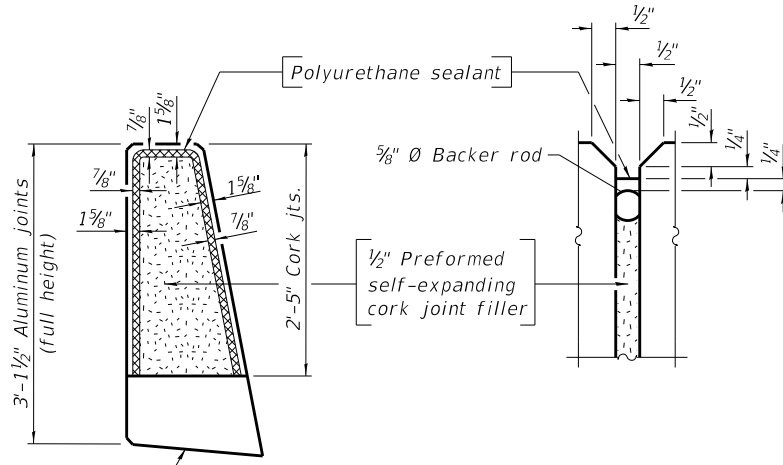
BAR d(E)



BAR d1(E)



VIEW B-B



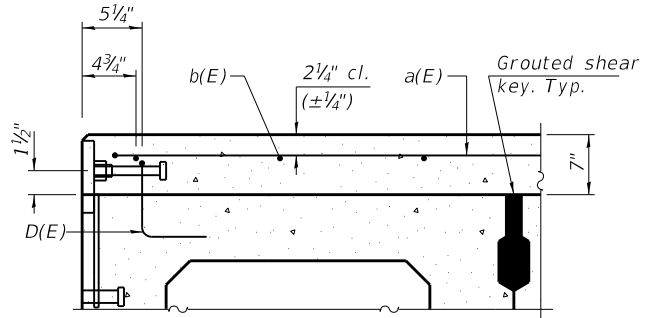
PARAPET JOINT DETAILS

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a(E)	156	#5	7'-1"	U	
a1(E)	303	#5	41'-8"	—	
b(E)	840	#5	27'-6"	—	
d(E)	454	#5	6'-4"	U	
d1(E)	454	#5	5'-1"	U	
e(E)	120	#4	14'-9"	—	
e1(E)	24	#4	26'-9"	—	
e2(E)	32	#4	14'-0"	—	
e3(E)	16	#4	7'-0"	—	
Reinforcement Bars, Epoxy Coated				Pound	45,810
Concrete Superstructure				Cu. Yd.	314.7

- Notes:
- Formwork necessary for the concrete deck may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.
 - The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
 - The Polyurethane Sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.
 - Parapet concrete and concrete deck shall be paid for as Concrete Superstructure.
 - Drill and set d1(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".
 - For Parapet Railing and Bicycle Railing details, see sheets 6 and 7 of 24.
 - Bars indicated thus 2x3-#4 etc. indicates 2 lines of bars with 3 lengths per line.
 - Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.
 - Center one Parapet Drain on each Parapet Panel. See View B-B for Parapet Drain detail. Cost included with Concrete Superstructure.

SECTION THRU SOUTH FASCIA BEAM AT RAILING ANCHORAGE



FILE NAME: H:\P\222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-004-Superstructure-Details.dgn



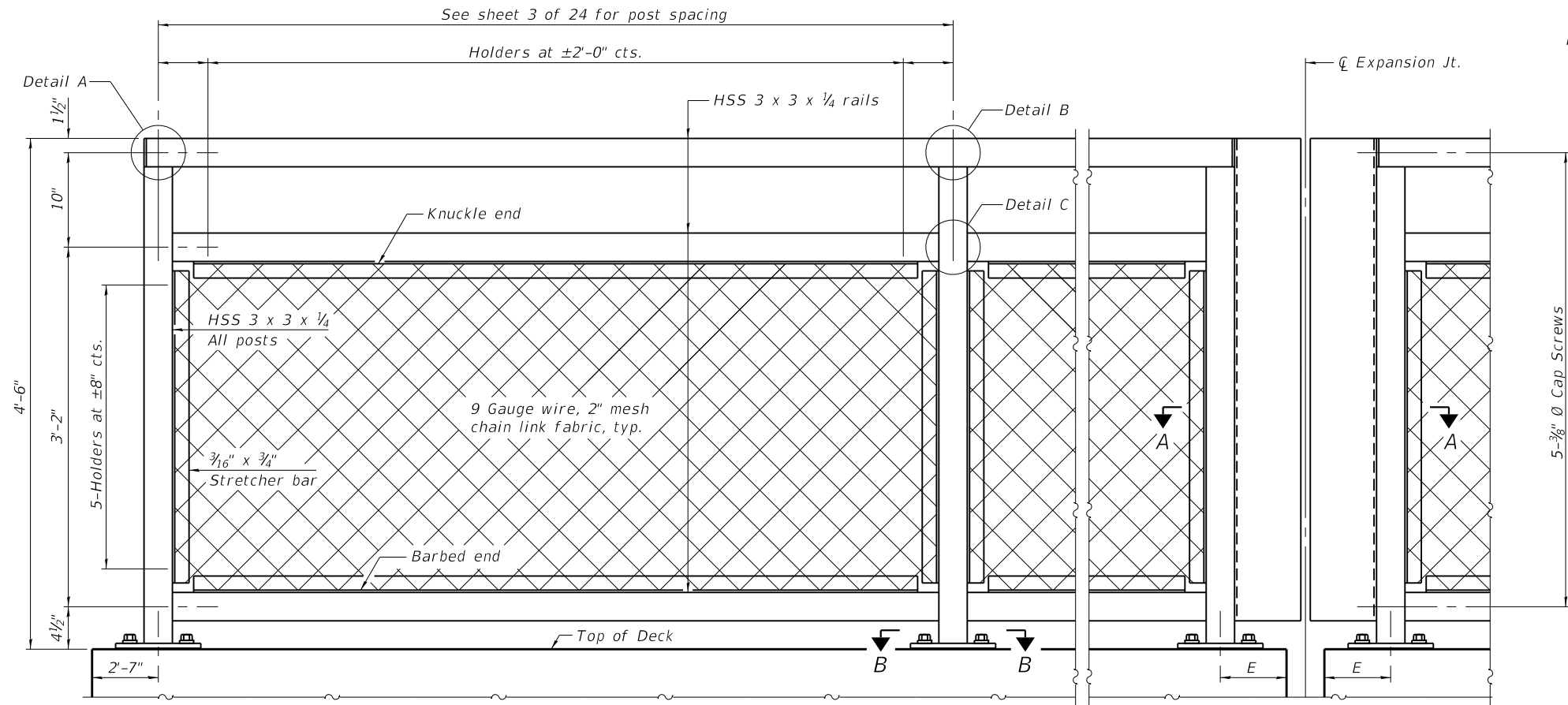
USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

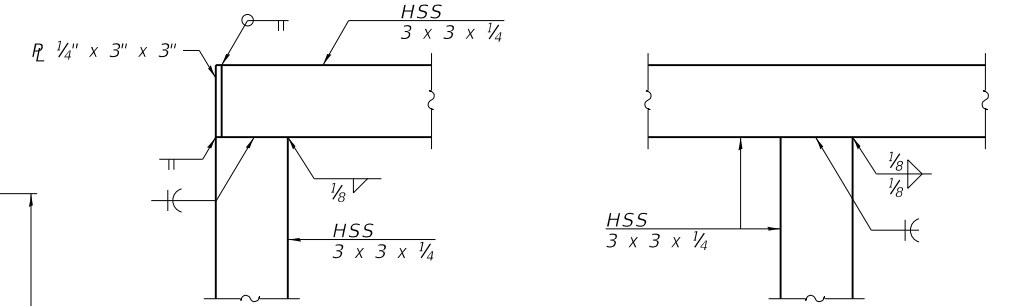
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 060-6702

SHEET 4 OF 24 SHEETS

F.A.U. RTE. 8874	SECTION 20-00109-01-BR	COUNTY MADISON	TOTAL SHEETS 37	SHEET NO. 17
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

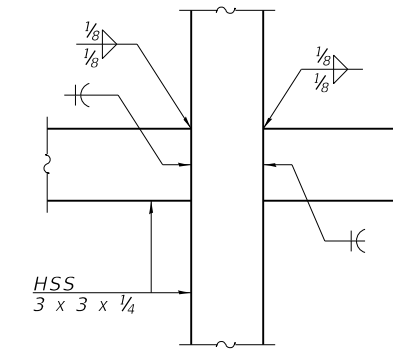


ELEVATION BICYCLE RAILING
(Inside face)

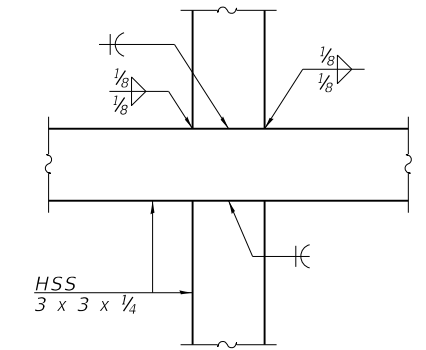


DETAIL A

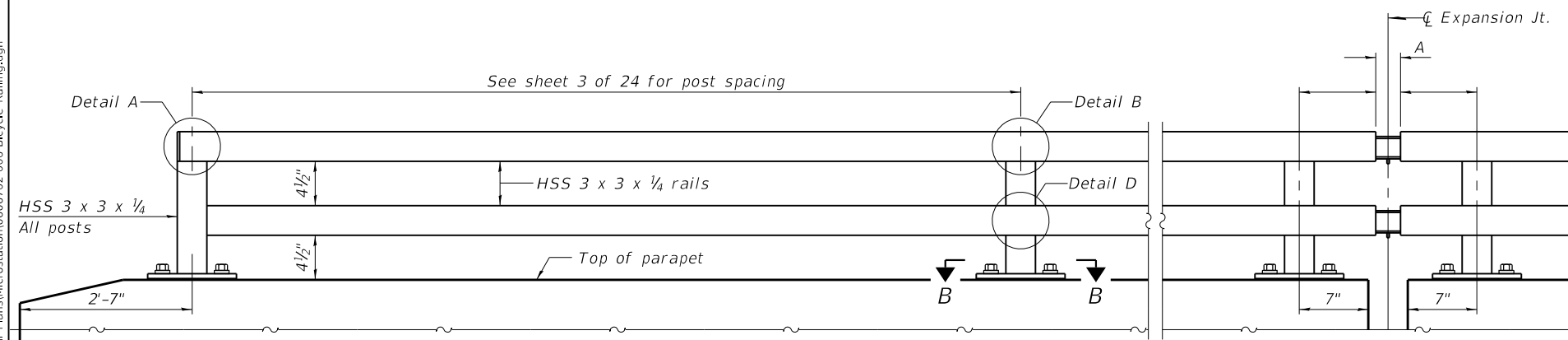
DETAIL B



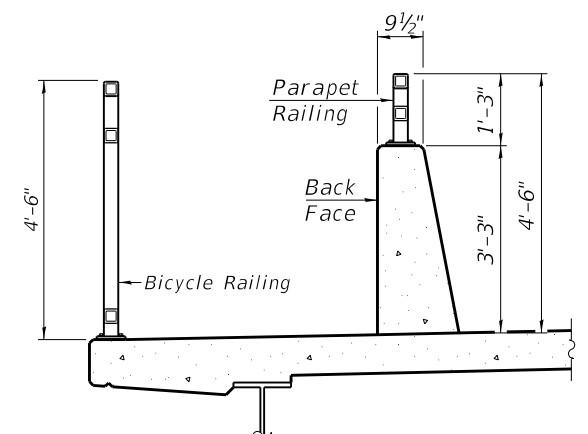
DETAIL C



DETAIL D



ELEVATION PARAPET RAILING
(Inside face)



SECTION THRU DECK

RAILING CRITERIA

MASH 2016 Test Level	4
Parapet Railing Weight (plf)	25
Bicycle Railing Weight (plf)	50
Max Post Spacing	10'-0"

R-29 9-1-2022

(Sheet 1 of 2)



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

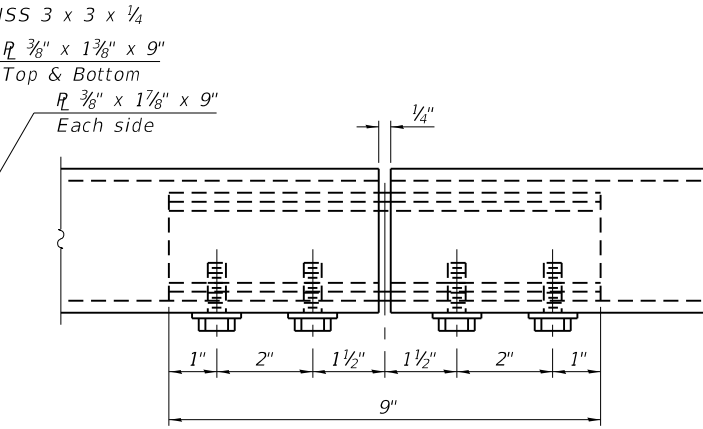
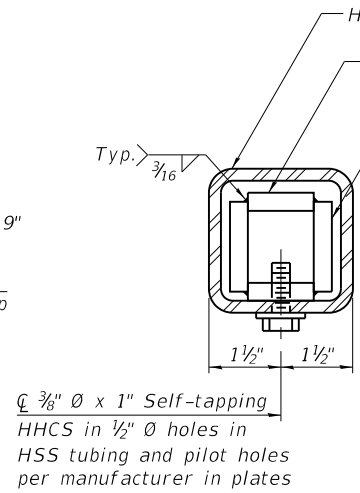
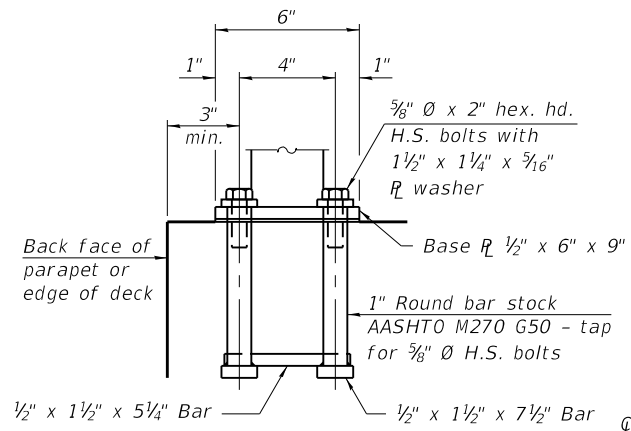
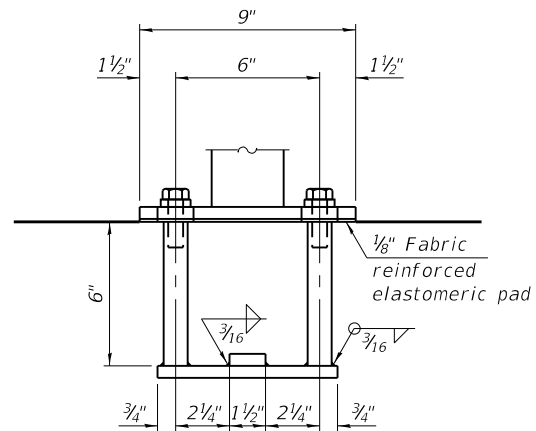
**BICYCLE RAILING AND PARAPET RAILING
STRUCTURE NO. 060-6702**

SHEET 6 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	19
CONTRACT NO. 97846				

ILLINOIS FED. AID PROJECT

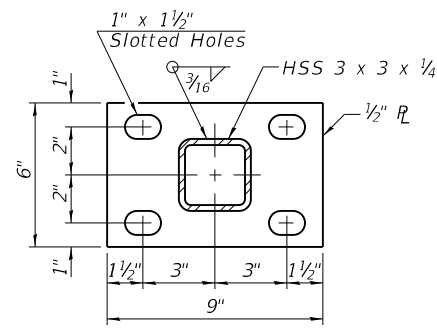
FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Bicycle Railing.dgn



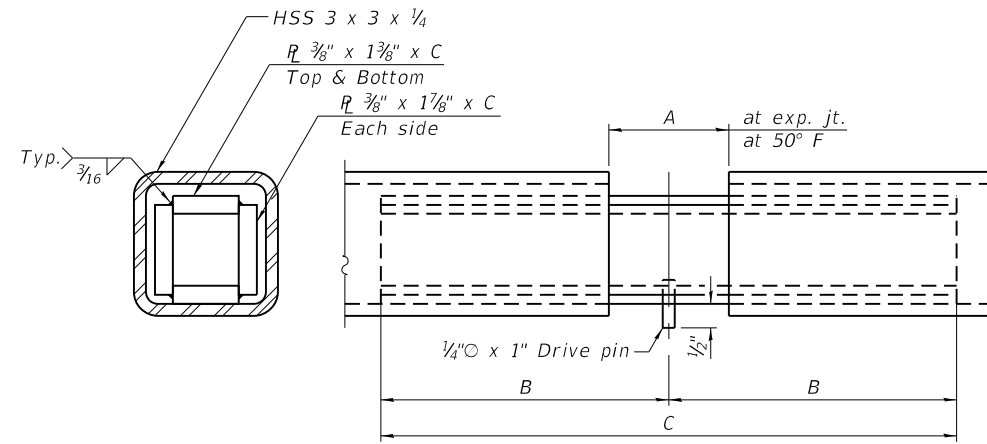
Notes:
 Place reinforcement bars to miss anchor rod locations. CVN testing is not required for the HSS tubing used in the Bicycle Railing.
 All HSS tubing used for the Parapet Railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
 All HSS tubing used for the Parapet Railing shall be ASTM A500 grade C.
 All base plates used for the Parapet Railing shall be AASHTO M270 grade 50.
 All heavy hex nuts shall be according to ASTM A 563 grade DH.
 All fully threaded anchor rods shall be ASTM F1554 grade 105.
 The post base plate shall be fastened to the curb snug tight and given an additional 1/8" turn.
 Rail splice inserts may be built out of bent plates of the same thicknesses and outside geometry limits as the 4 plate rail splice inserts shown.
 When the contract specifies a galvanized railing, all steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. When the contract specifies a painted railing, all posts, rail, splices, anchor devices and plates of the railing shall be painted according to the paint system for railings as specified in the General Notes.

ANCHORAGE ASSEMBLY

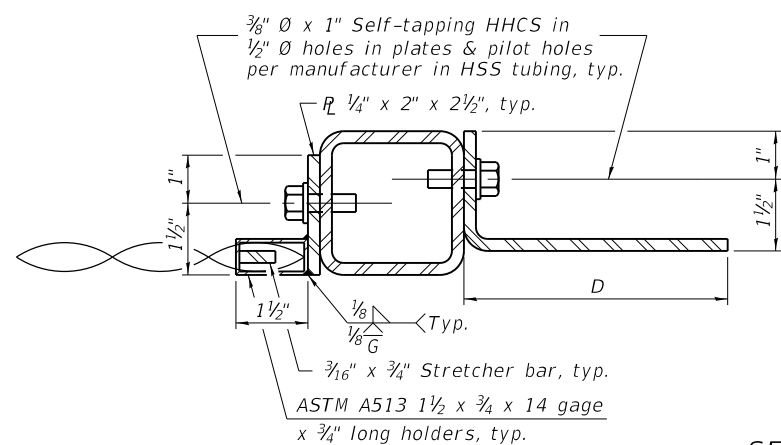
The Bicycle Railing fasteners for end posts near expansion joints may need to be installed prior to installing the bent plates. In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" Ø fully threaded anchor rods with the same plate washers as specified above and heavy hex lock nuts according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



SECTION B-B



EXPANSION SPLICE



SECTION A-A

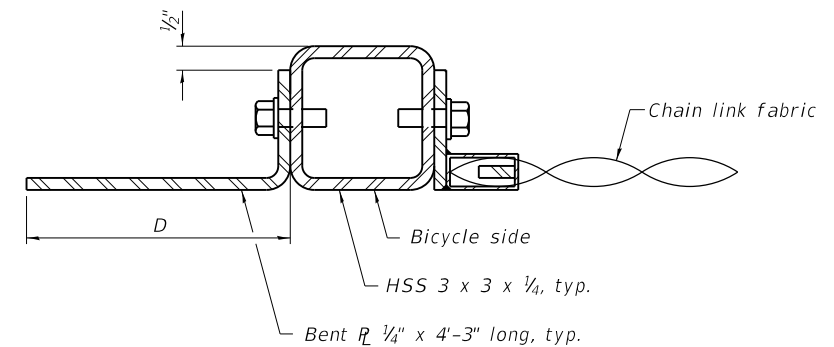


TABLE OF DIMENSIONS

Location	T	A	B	C	D	E
Over Strip Seal Jt.	≤4"	2 1/2"	1'-2"	2'-4"	7 1/4"	7"
Over Finger or Modular Jt.	≤9 1/2"	5 1/2"	1'-7 3/4"	3'-3 1/2"		
Over Finger or Modular Jt.	≤15"	8 1/4"	2'-1 1/4"	4'-2 1/2"		

T = ; total movement based on total temperature range from -20°F to 120°F along centerline of roadway at expansion joint.

R-29 9-1-2022



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING AND PARAPET RAILING
STRUCTURE NO. 060-6702

(Sheet 2 of 2)

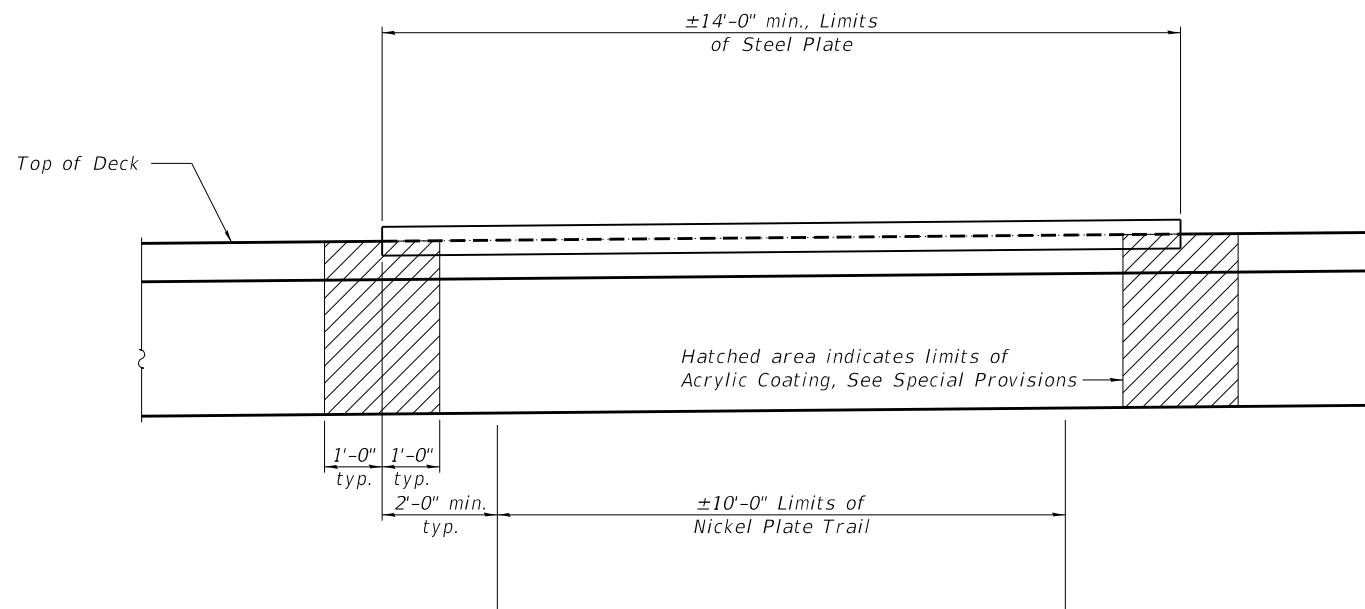
SHEET 7 OF 24 SHEETS

BILL OF MATERIAL

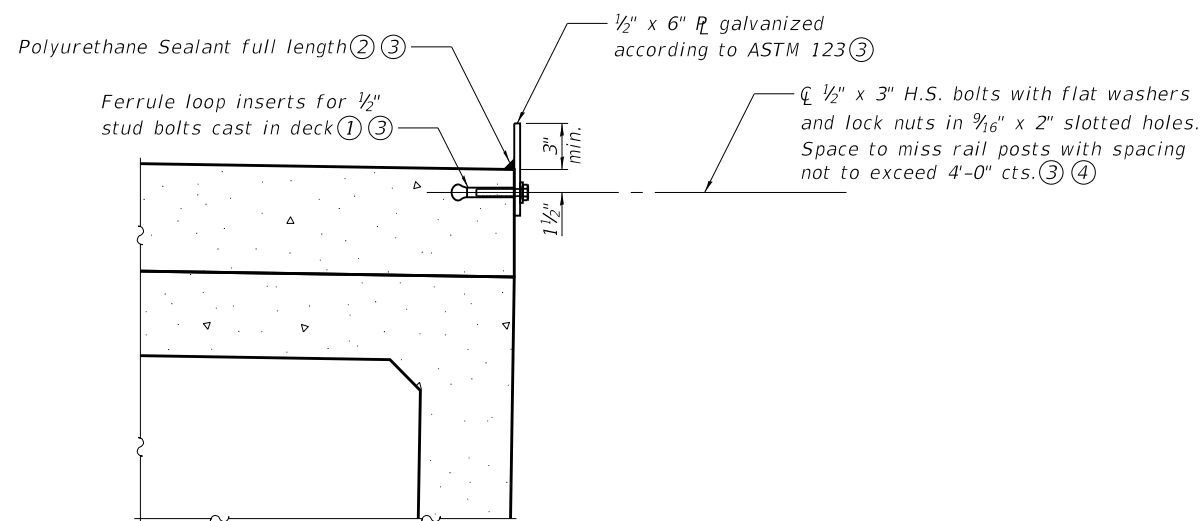
Item	Unit	Quantity
Bicycle Railing	Foot	328
Parapet Railing	Foot	328

F.A.U. RTE. 8874	SECTION 20-00109-01-BR	COUNTY MADISON	TOTAL SHEETS 37	SHEET NO. 20
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-007-Bicycle Railing.dgn



SPAN 2 PARTIAL ELEVATION ⑥
(north and south fascia)



PARTIAL SECTION

BILL OF MATERIAL

Acrylic Coating	Sq. Yd.	2.6
Steel Plate	L Sum	1

Notes:

- ① Threaded areas shall be plugged or blocked off during casting of concrete.
- ② The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.
- ③ Cost included with Steel Plate.
- ④ All hardware shall be galvanized according to ASTM 153.
- ⑤ Cut plates as necessary to accommodate Rail Posts.
- ⑥ Runoff guards shall be installed on both the North & South fascia.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-008-Span 2_Runoff_Guard.dgn



USER NAME =	DESIGNED - KBC	REVISED -
	CHECKED - DGL	REVISED -
PLOT SCALE =	DRAWN - KBC	REVISED -
PLOT DATE = 9/4/2024	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

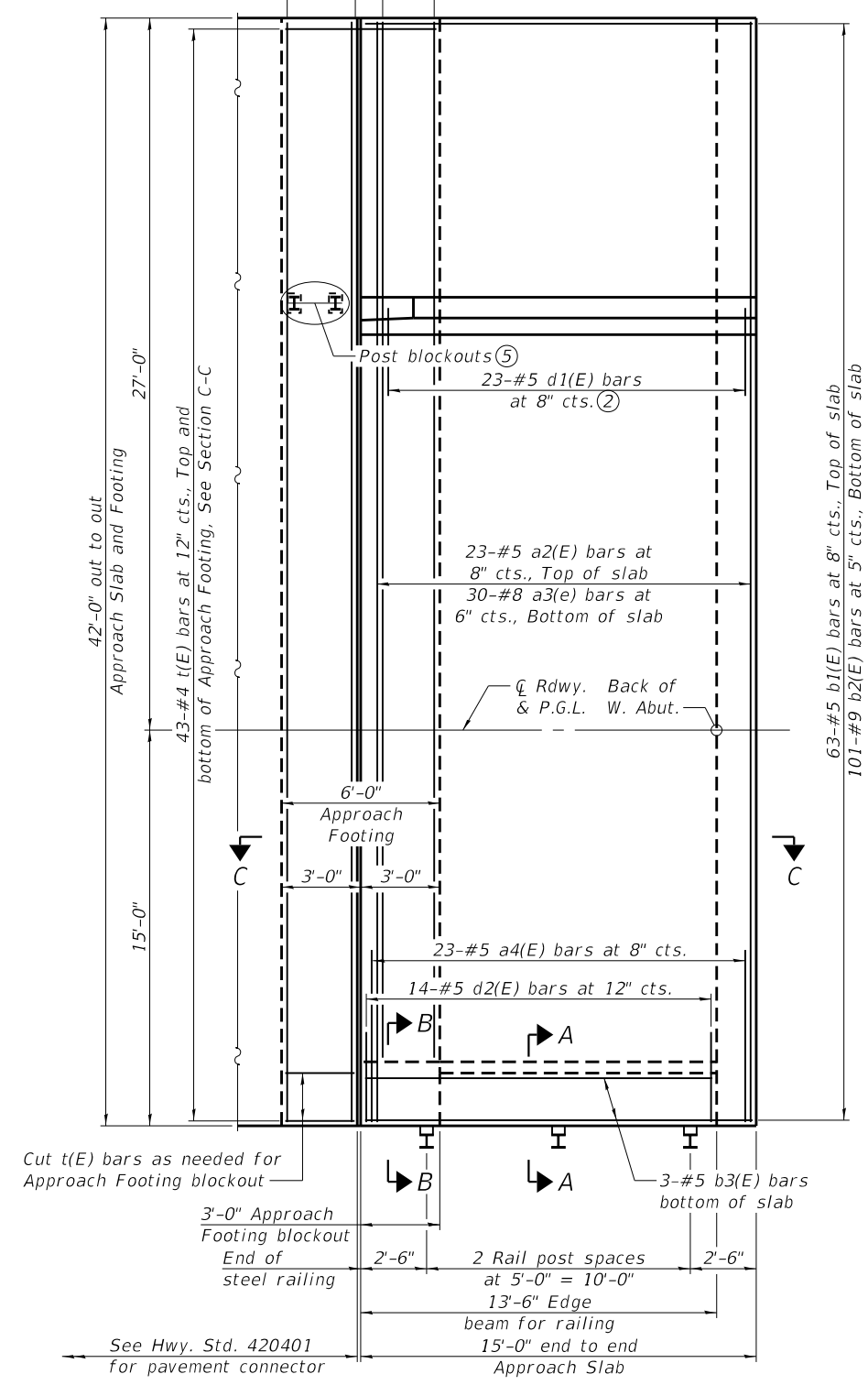
**SPAN 2 RUNOFF GUARD
STRUCTURE NO. 060-6702**

SHEET 8 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	21
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

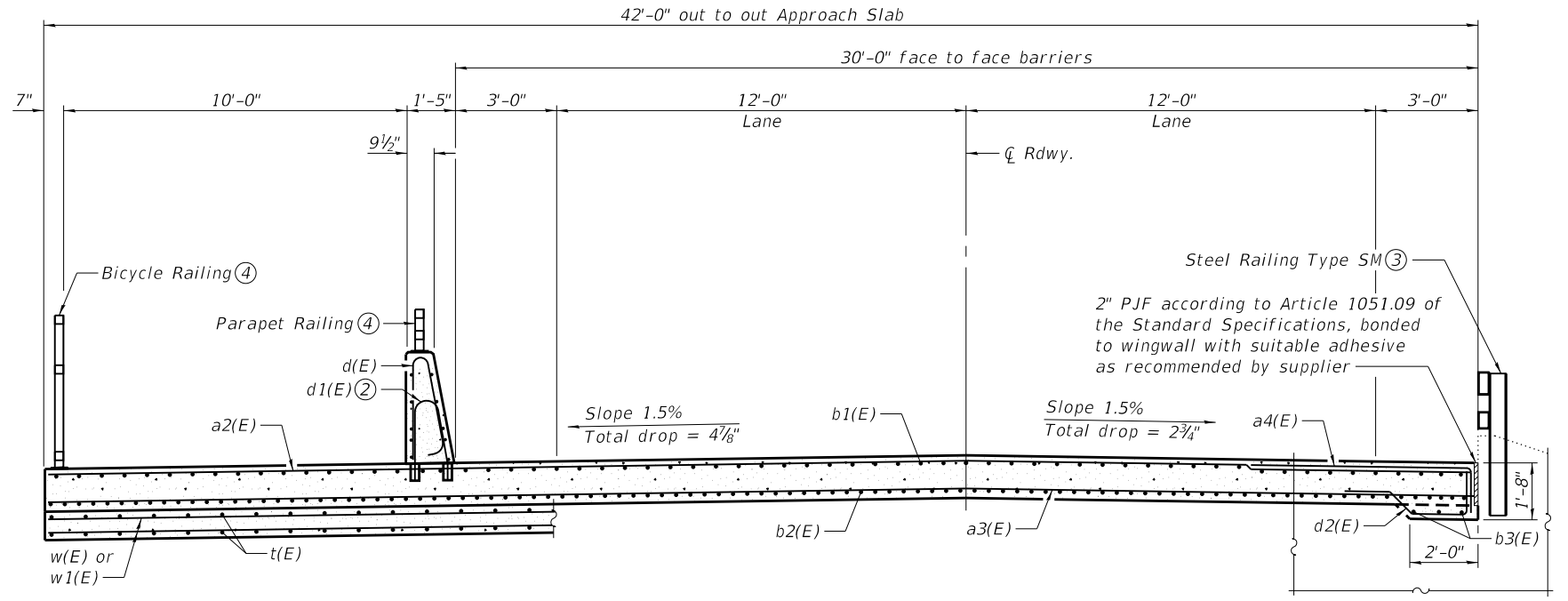
6-#5 w(E) bars at 6" cts.,
Top and bottom of Approach
Footing, See Section C-C

6-#5 w1(E) bars at 6" cts.,
Top and bottom of Approach
Footing, See Section C-C



PLAN

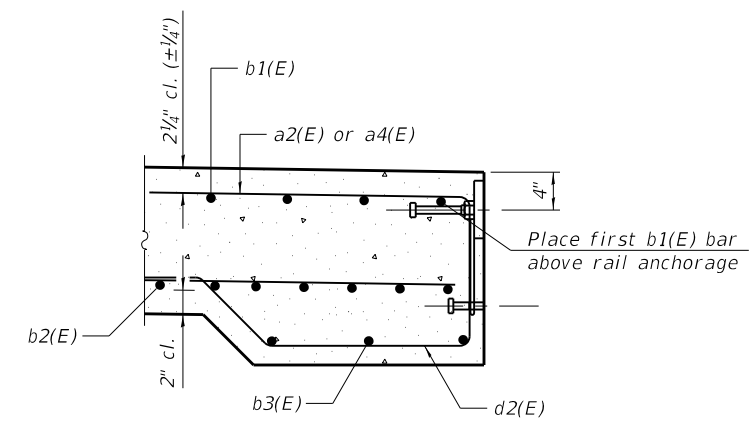
(West approach slab shown; East approach slab similar)



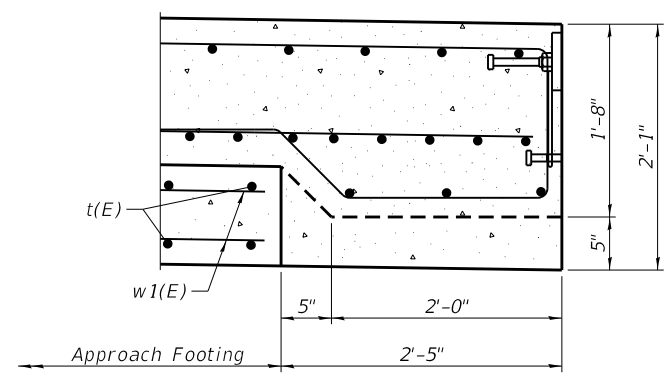
AT APPROACH FOOTING

CROSS SECTION

NEAR ABUTMENT



SECTION A-A



SECTION B-B

Notes:

- ① Parapet concrete shall be paid for as Concrete Superstructure.
- ② Drill and set d1(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".
- ③ For Steel Railing Type SM details, see sheet 5 of 24.
- ④ For Parapet Railing and Bicycle Railing details, see sheets 6 and 7 of 24.
- ⑤ Form block outs in approach footing for posts of Traffic Barrier Terminal Type 6 (Std. 631031). Cut bars as necessary.
- ⑥ For Section C-C, see sheet 10 of 24.
- ⑦ Approach Slab and Approach Footing elevations to be determined by Resident Engineer in the field.

FILE NAME: H:\P\222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-009-Bridge Approach Slab Details.dgn



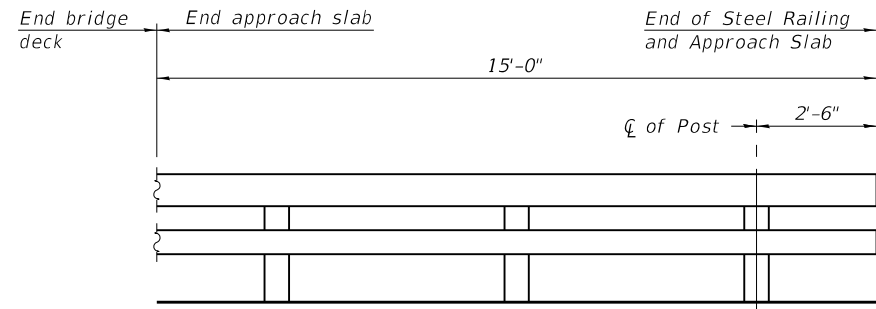
USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 060-6702**

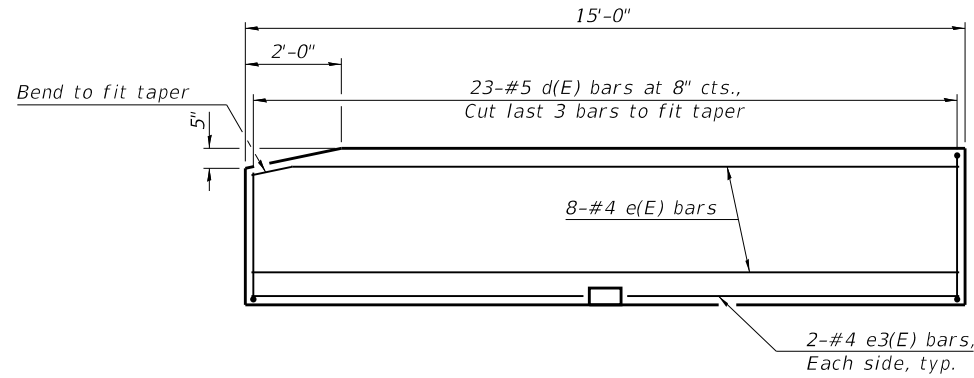
SHEET 9 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	22
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				



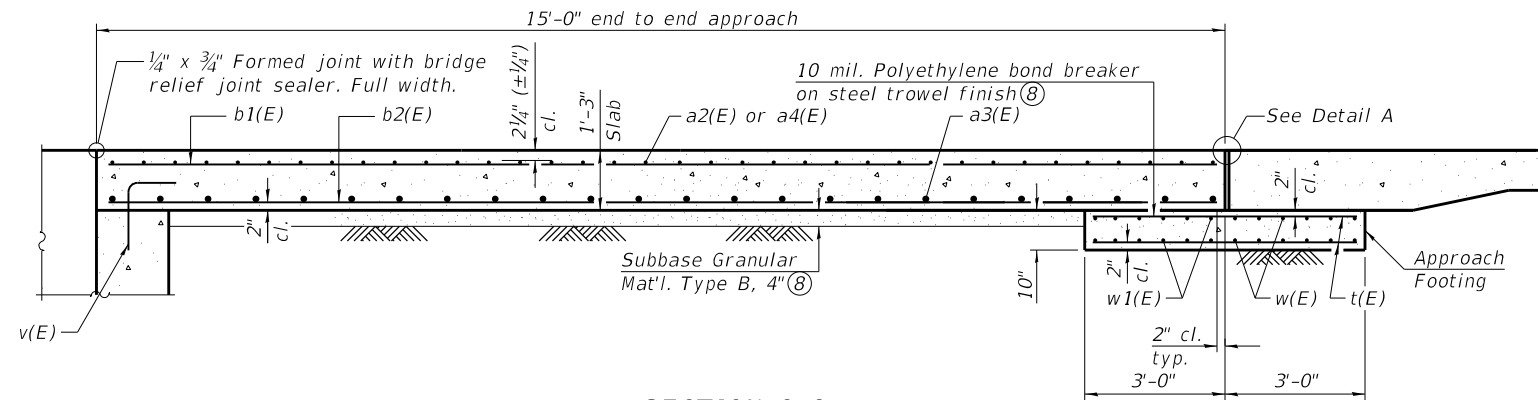
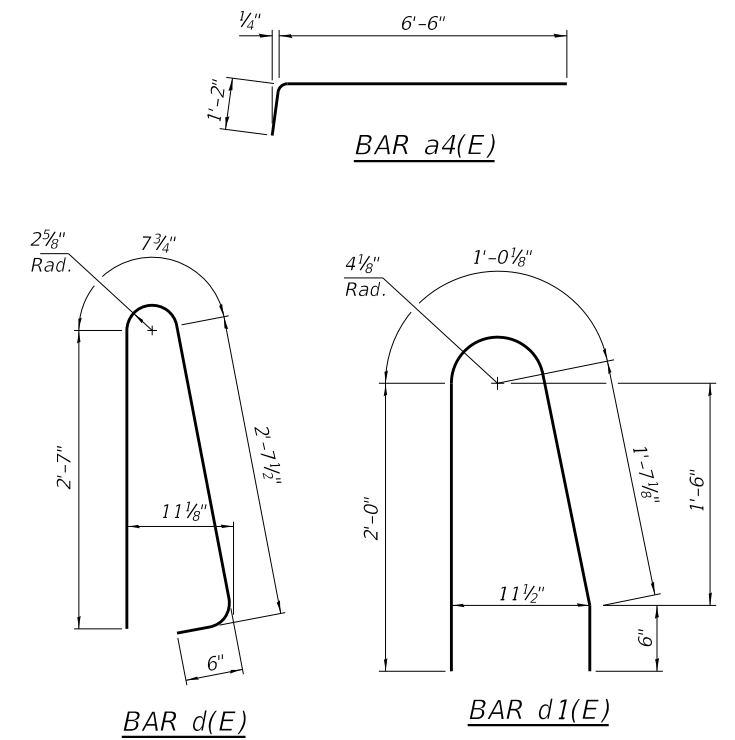
INSIDE ELEVATION OF SOUTH RAILING

(West approach shown, east approach similar)

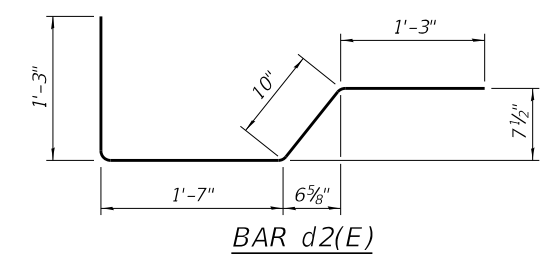


INSIDE ELEVATION OF NORTH PARAPET ⑩

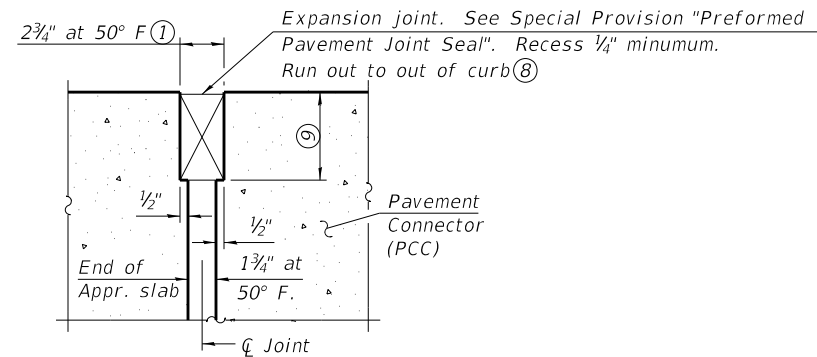
(West approach shown, east approach similar)



SECTION C-C



BAR d2(E)



DETAIL A

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	46	#5	41'-8"	—
a3(E)	60	#8	41'-8"	—
a4(E)	46	#5	7'-8"	—
b1(E)	126	#5	14'-8"	—
b2(E)	202	#9	14'-8"	—
b3(E)	6	#5	13'-2"	—
d(E)	46	#5	6'-4"	⏏
d1(E)	46	#5	5'-1"	⏏
d2(E)	28	#5	4'-11"	⏏
e(E)	16	#4	14'-9"	—
e3(E)	8	#4	7'-0"	—
t(E)	172	#4	5'-8"	—
w(E)	24	#5	41'-8"	—
w1(E)	24	#5	39'-3"	—
Concrete Structures			Cu. Yd.	15.1
Concrete Superstructure			Cu. Yd.	4.0
Concrete Superstructure (Approach Slab)			Cu. Yd.	59.5
Reinforcement Bars, Epoxy Coated			Pound	24,690

Notes:

- The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing concrete shall be paid for as Concrete Structures.
- The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
- Cost of excavation for approach footing and approach slab included with Concrete Structures.
- For Steel Railing Type SM details, see sheet 5 of 24.
- For Parapet Railing and Bicycle Railing details, see sheets 6 and 7 of 24.
- Cost included with Concrete Superstructure (Approach Slab).
- Per manufacturer recommendations.
- See View B-B on sheet 4 of 24 for details.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-010-Bridge Approach Slab Details.dgn



USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

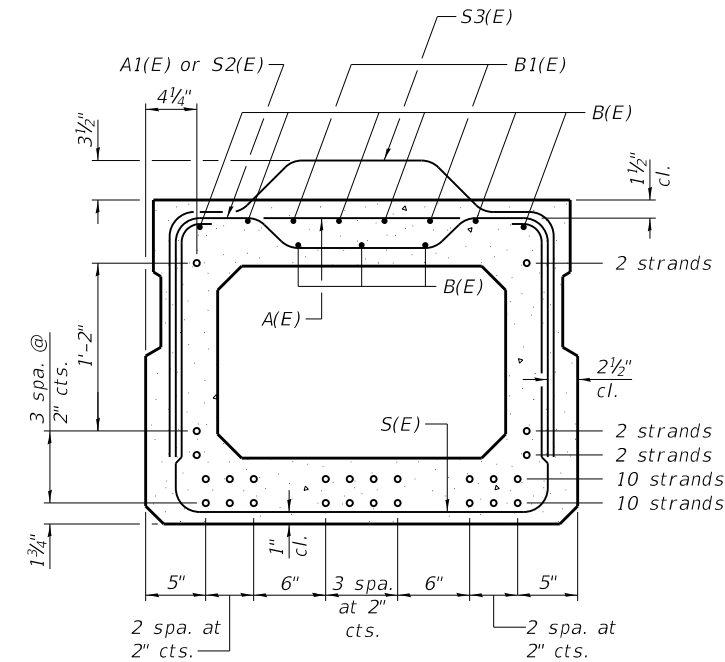
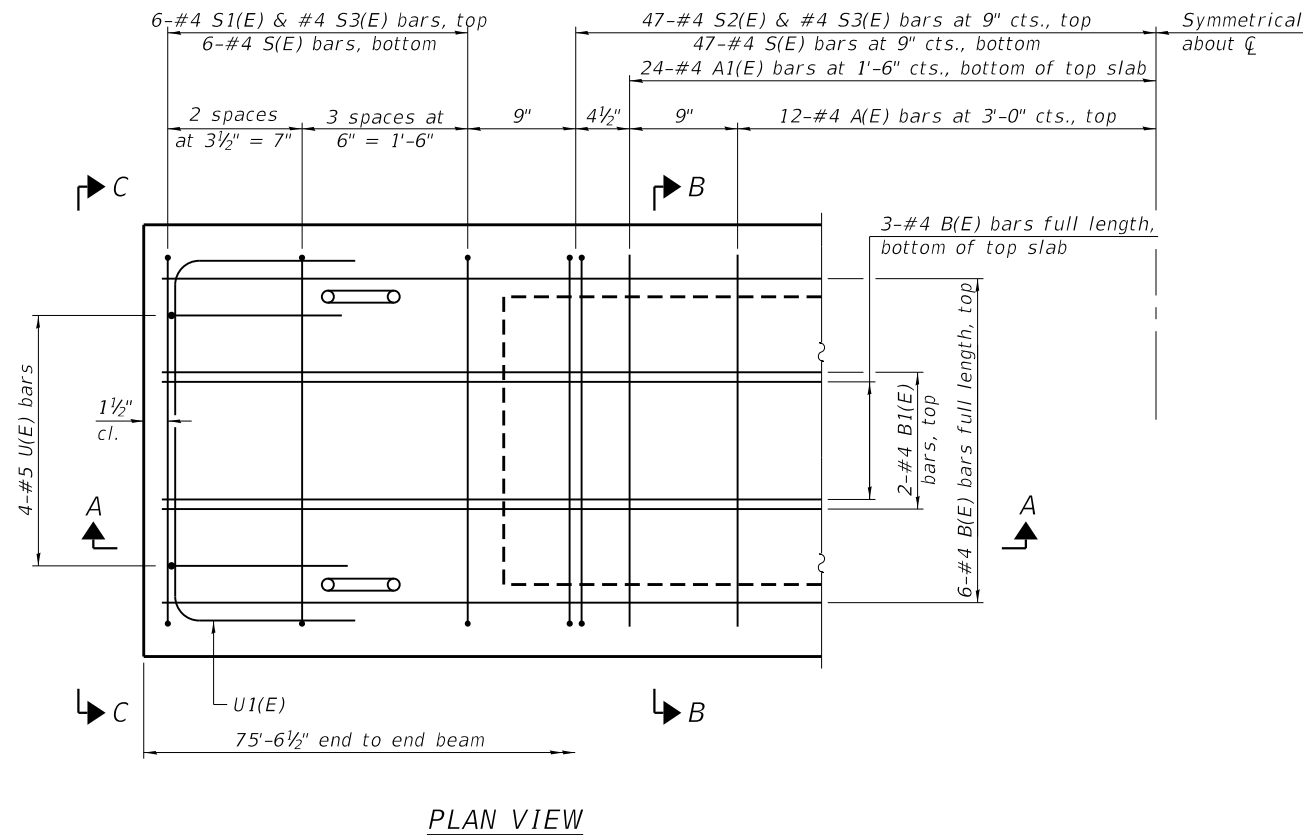
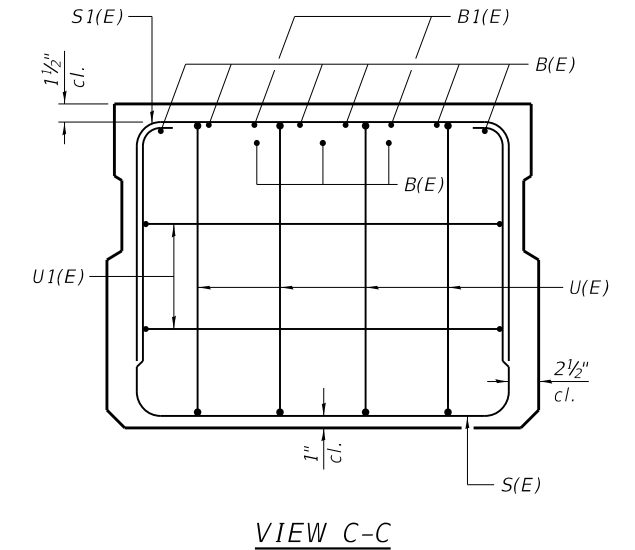
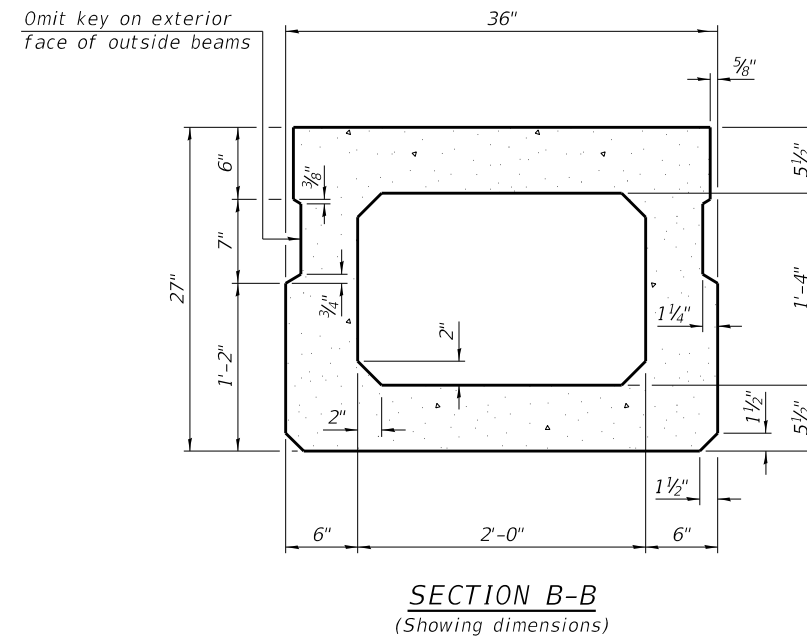
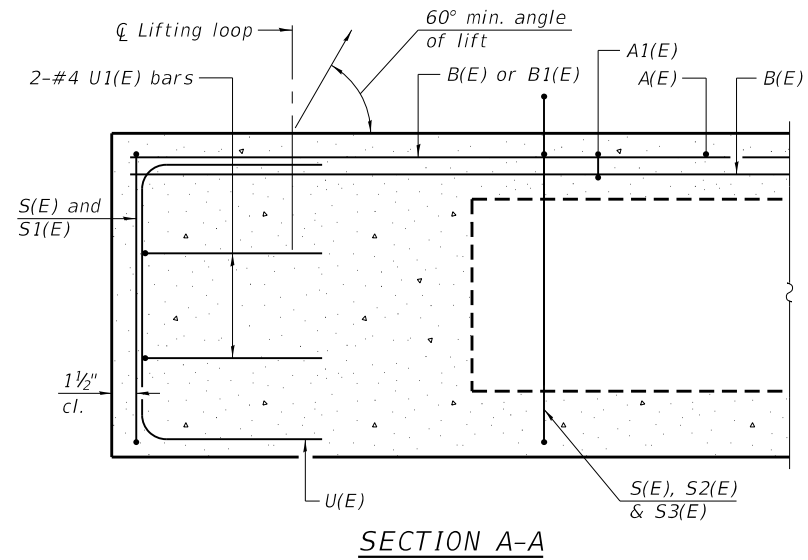
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 060-6702**

SHEET 10 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	23
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-011-27x36 PPC Deck Beam.dgn



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	24	#4	2'-7"	—
A1(E)	47	#4	2'-10"	—
B(E)	9	#4	75'-3"	—
B1(E)	4	#4	10'-0"	—
D(E)	104	#4	2'-9"	┌
S(E)	106	#4	7'-5"	┌
S1(E)	12	#4	5'-11"	┌
S2(E)	94	#4	6'-2"	┌
S3(E)	106	#4	7'-3"	┌
U(E)	8	#5	4'-6"	┌
U1(E)	4	#4	5'-0"	┌

Note:
Spacing of S(E), S2(E), and S3(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

SECTION B-B
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#4 bar = 2'-0"

Note:
① See sheet 12 of 24 for additional details and Bill of Material.
② Bar D(E) at rail post locations on south fascia beams only. See sheet 3 & 4 of 24 for locations and additional details.

PD-2736-0

1-1-2020



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

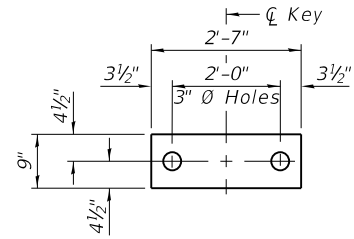
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 36" PPC DECK BEAM
STRUCTURE NO. 060-6702

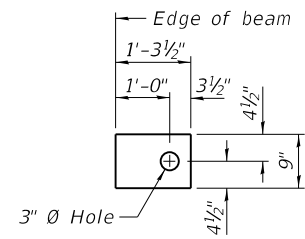
SHEET 11 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	24
CONTRACT NO. 97846				

ILLINOIS FED. AID PROJECT



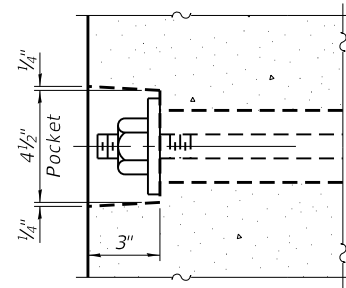
FABRIC BEARING PAD
(Interior)



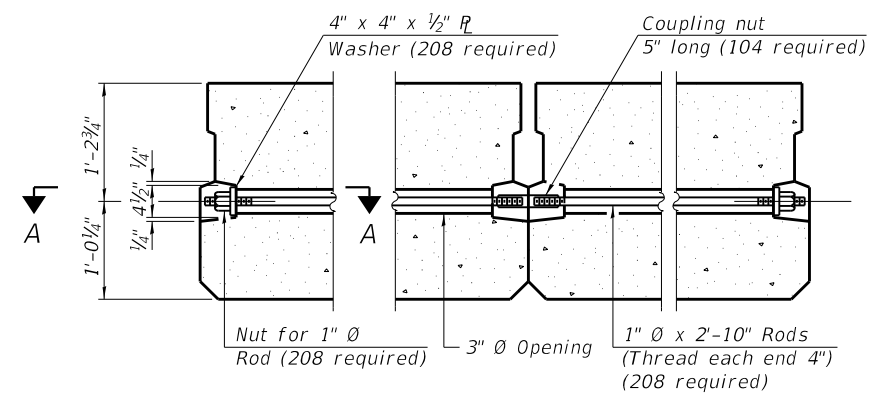
FABRIC BEARING PAD
(Exterior)

FIXED

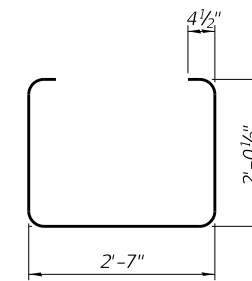
Notes:
All bearing pads shall be 1" thick.



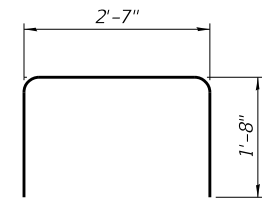
SECTION A-A



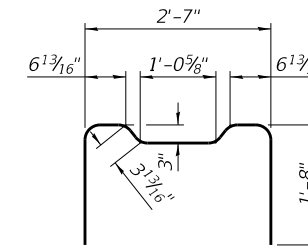
TYPICAL TRANSVERSE TIE ASSEMBLY



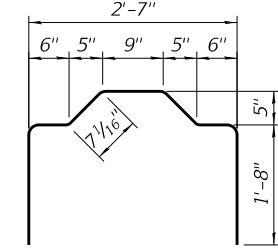
BAR S(E)



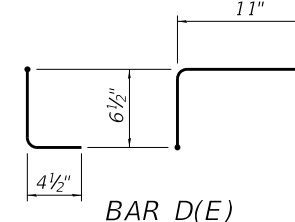
BAR S1(E)



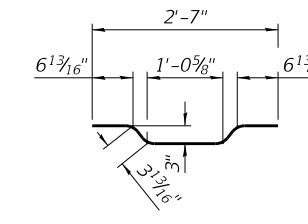
BAR S2(E)



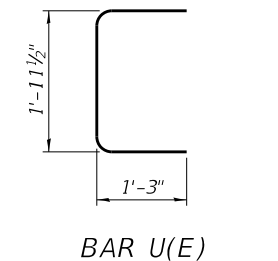
BAR S3(E)



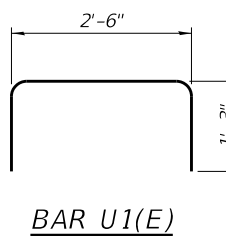
BAR D(E)



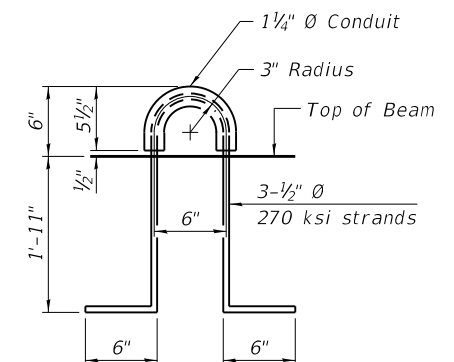
BAR A1(E)



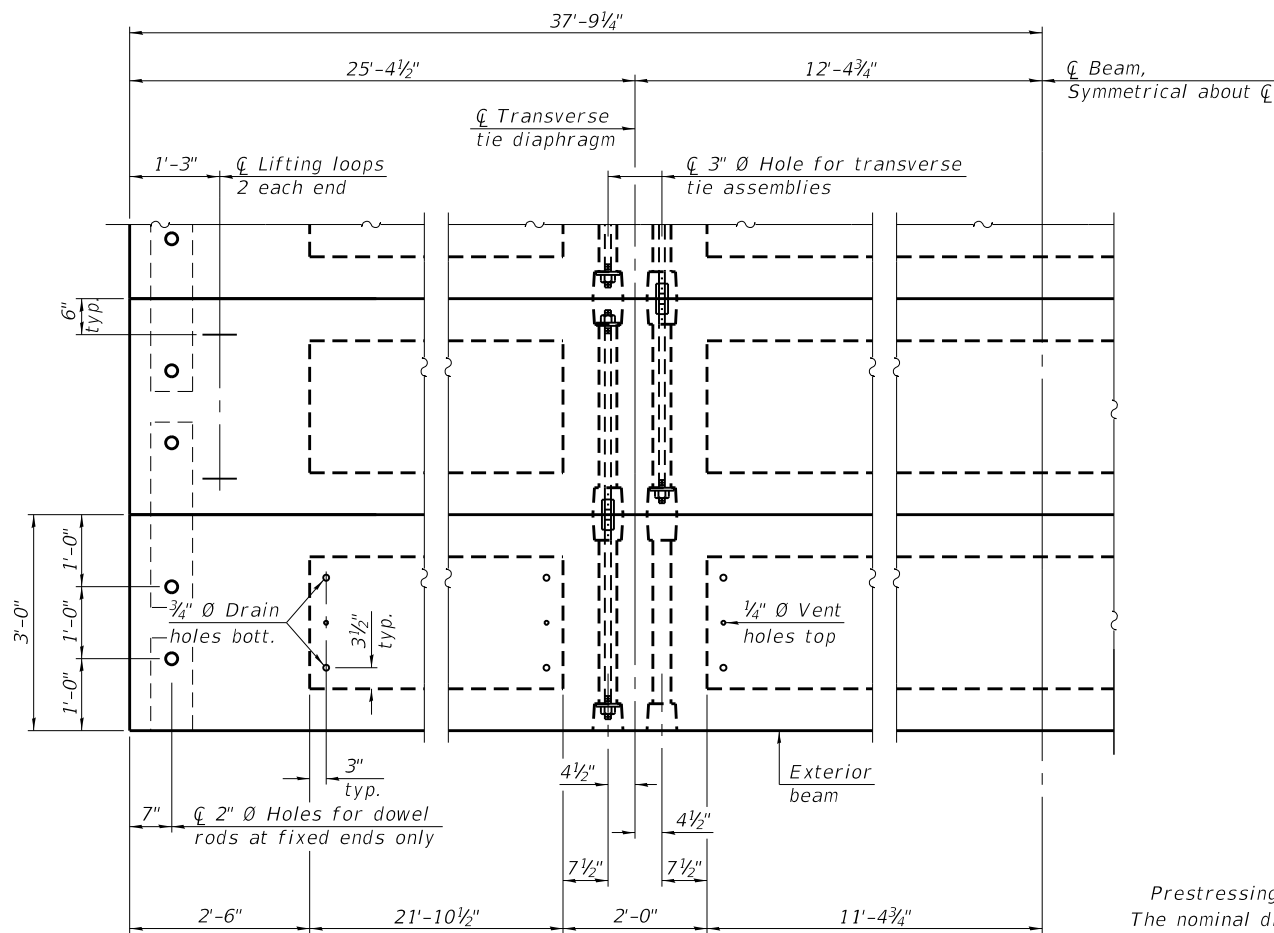
BAR U(E)



BAR U1(E)



LIFTING LOOP DETAIL



PLAN VIEW

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- Connect beams in pairs with the transverse tie configuration shown.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft. 12,691
---	----------------

PDD-2736-0

1-1-2020



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

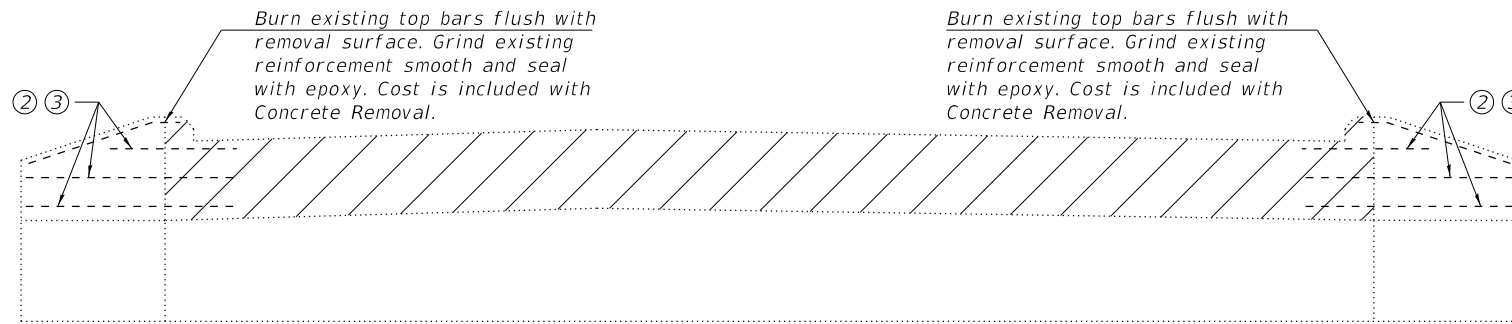
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 060-6702

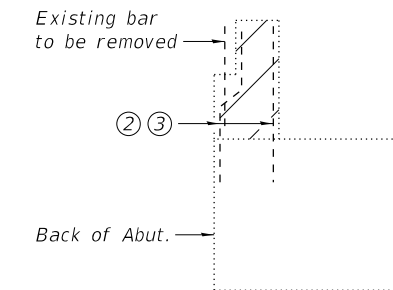
SHEET 12 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	25
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				

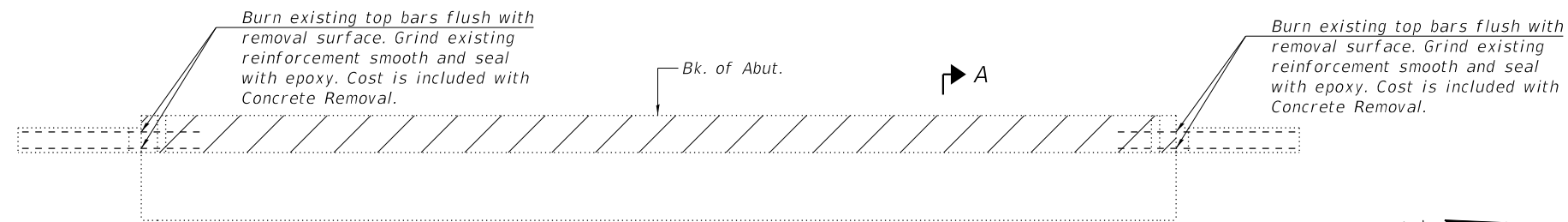
FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-012-27x36 PPC Deck Beam Details.dgn



REMOVAL ELEVATION
(West Abut. Shown East Abut. Similar)



SECTION A-A



REMOVAL PLAN
(West Abut. Shown East Abut. Similar)

**TWO ABUTMENTS
BILL OF MATERIAL**

Concrete Removal	Cu. Yd.	11.2
------------------	---------	------

- Notes:
- ① Hatched area indicates Concrete Removal.
 - ② Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal.
 - ③ Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approval bar splicer or anchorage system. Cost included with Concrete Removal.

FILE NAME: H:\P\222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-013-Concrete Removal.dgn



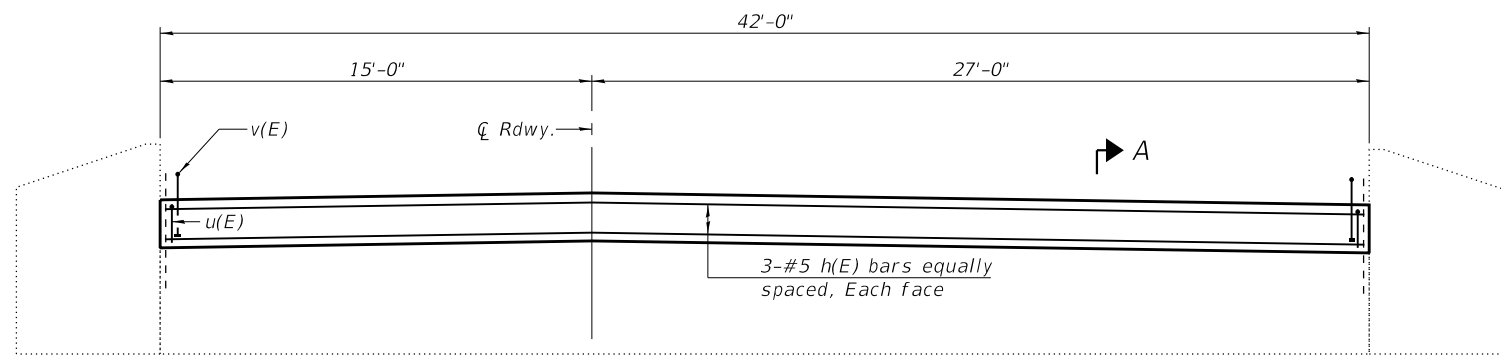
USER NAME =	DESIGNED - KBC	REVISED -
	CHECKED - DGL	REVISED -
PLOT SCALE =	DRAWN - KBC	REVISED -
PLOT DATE = 9/4/2024	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

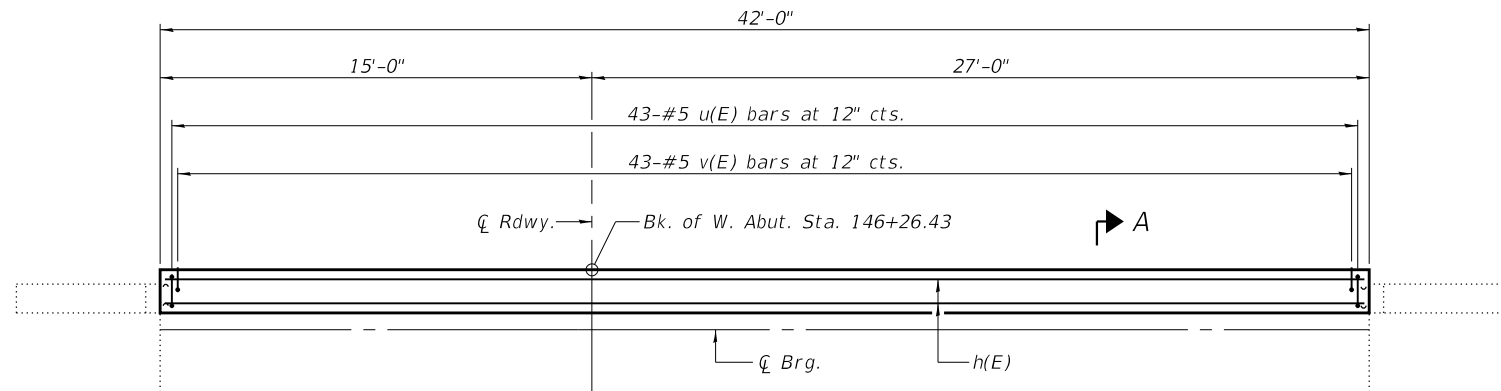
**CONCRETE REMOVAL
STRUCTURE NO. 060-6702**

SHEET 13 OF 24 SHEETS

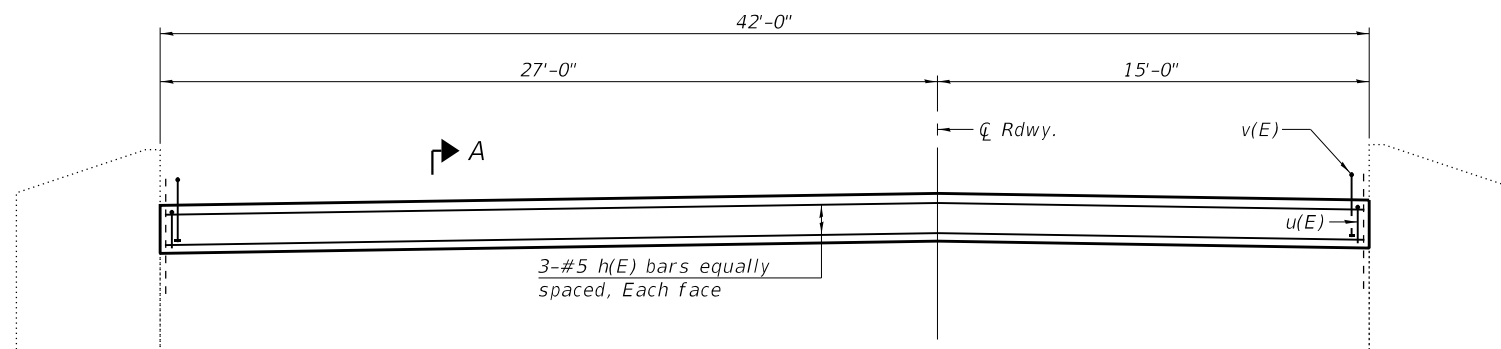
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	26
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97846	



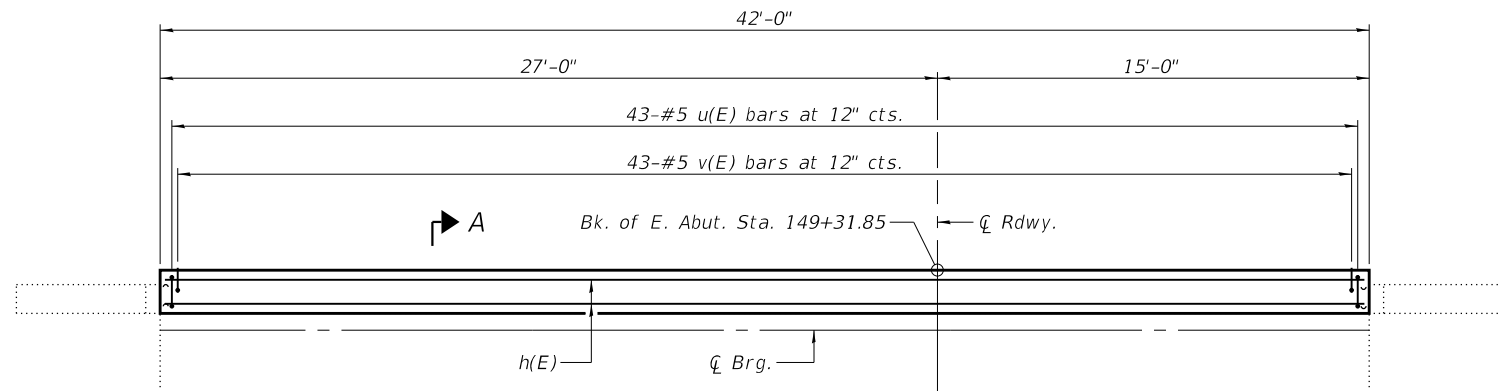
WEST ABUTMENT ELEVATION
(Looking West)



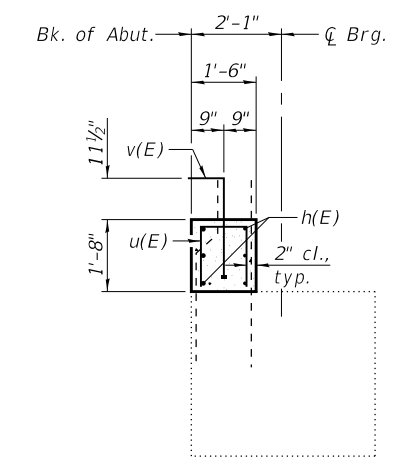
WEST ABUTMENT PLAN



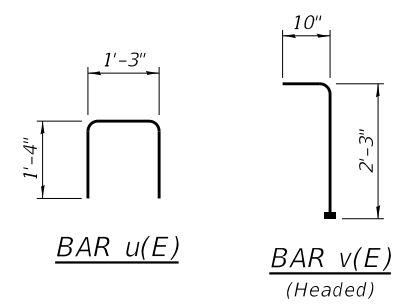
EAST ABUTMENT ELEVATION
(Looking East)



EAST ABUTMENT PLAN



SECTION A-A



**TWO ABUTMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	12	#5	41'-8"	—
u(E)	86	#5	3'-11"	⊔
v(E)	86	#5	3'-1"	└
Concrete Structures			Cu. Yd.	7.8
Reinforcement Bars, Epoxy Coated			Pound	1,150

- Notes:
 ① Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 ② Cast backwall after beams have been erected.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridges\Final Plans\Microstation\0606702-014-Abutments.dgn



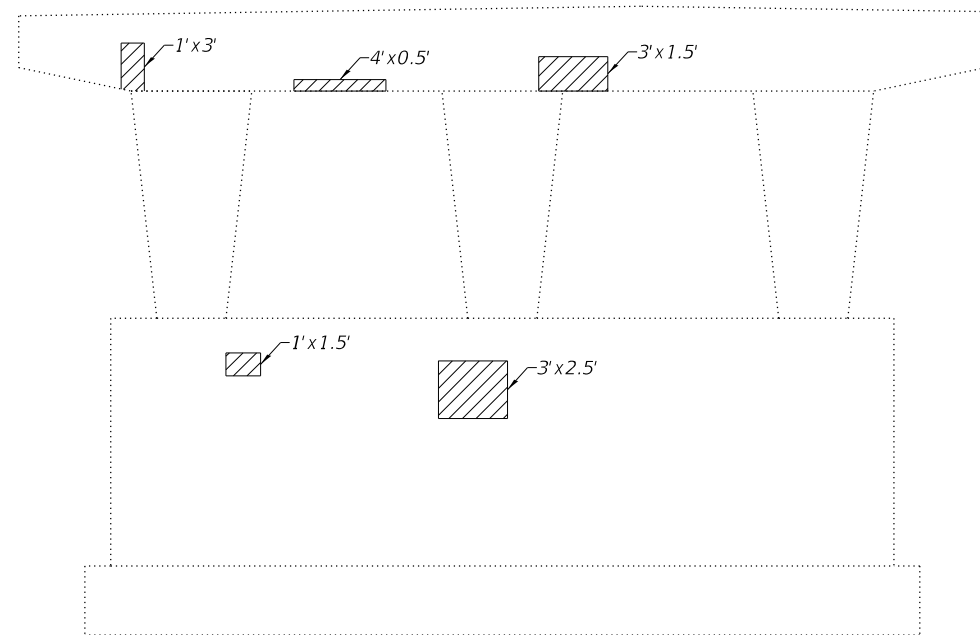
USER NAME =	DESIGNED - KBC	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/4/2024	DRAWN - KBC	REVISED -
	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

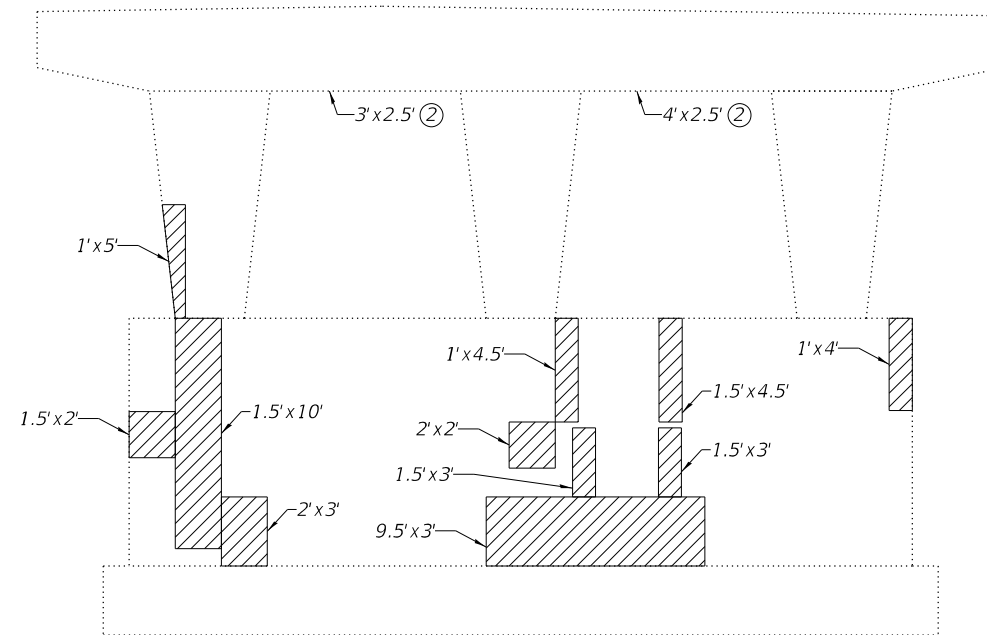
**ABUTMENTS
STRUCTURE NO. 060-6702**

SHEET 14 OF 24 SHEETS

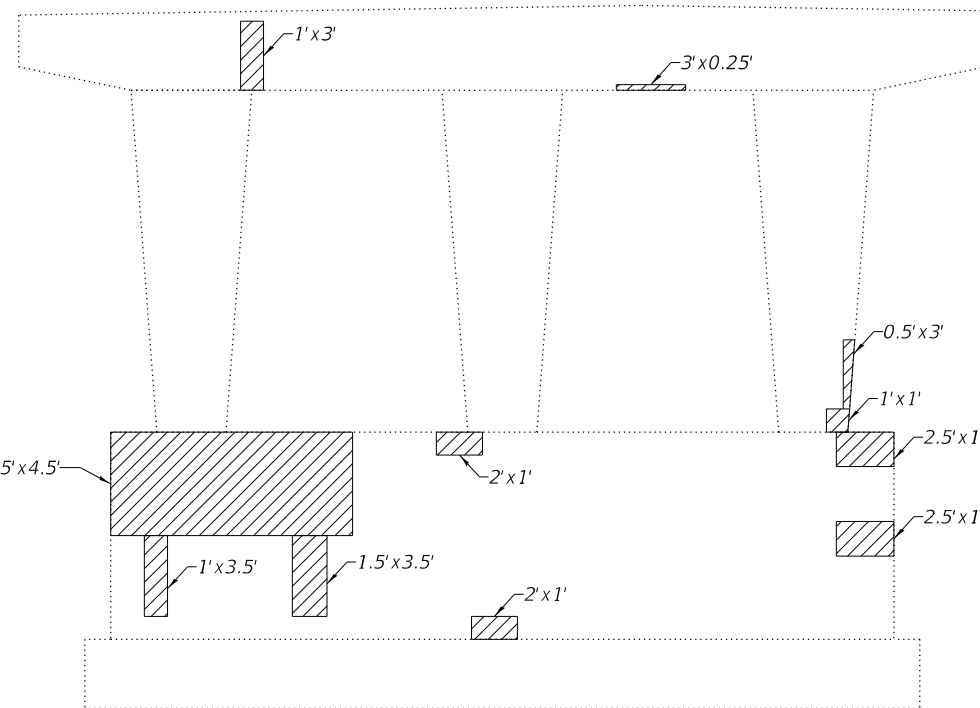
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	27
CONTRACT NO. 97846				
ILLINOIS FED. AID PROJECT				



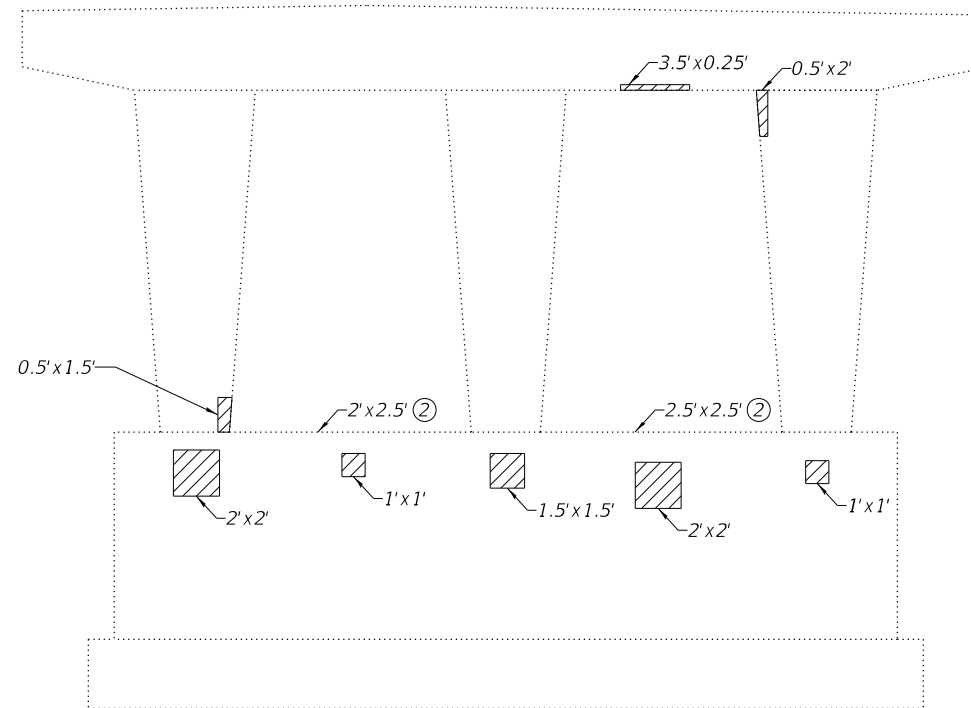
PIER 1 WEST FACE
(Looking East)




PIER 1 EAST FACE
(Looking West)



PIER 2 WEST FACE
(Looking East)



PIER 2 EAST FACE
(Looking West)

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

BILL OF MATERIAL

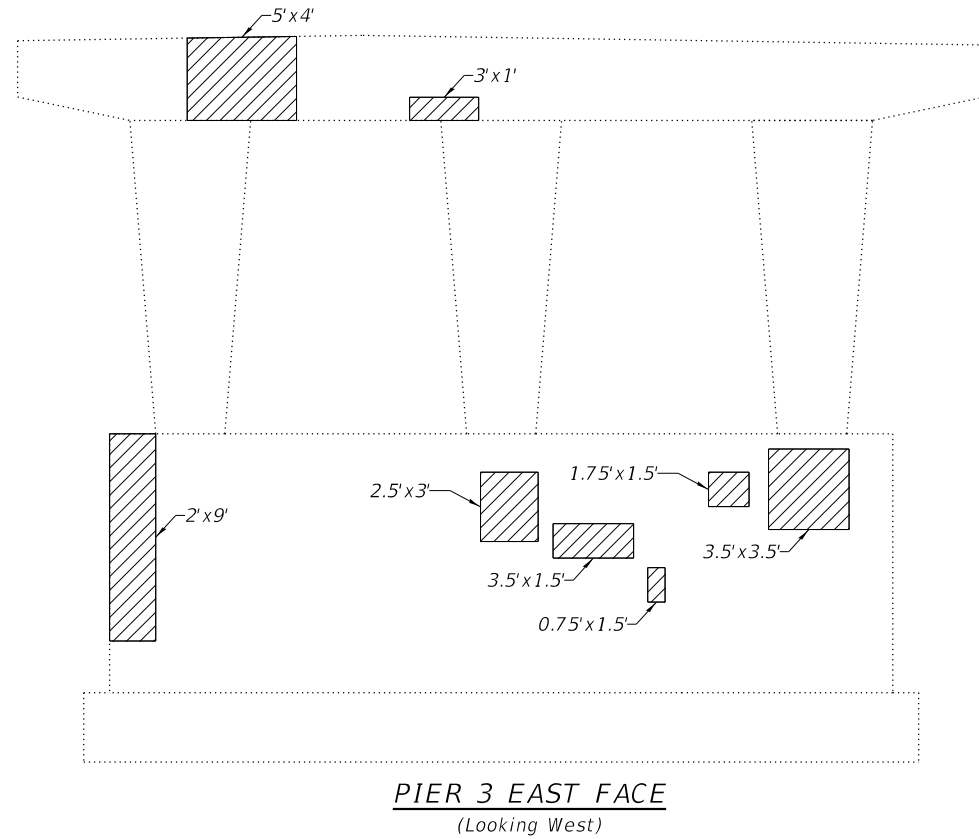
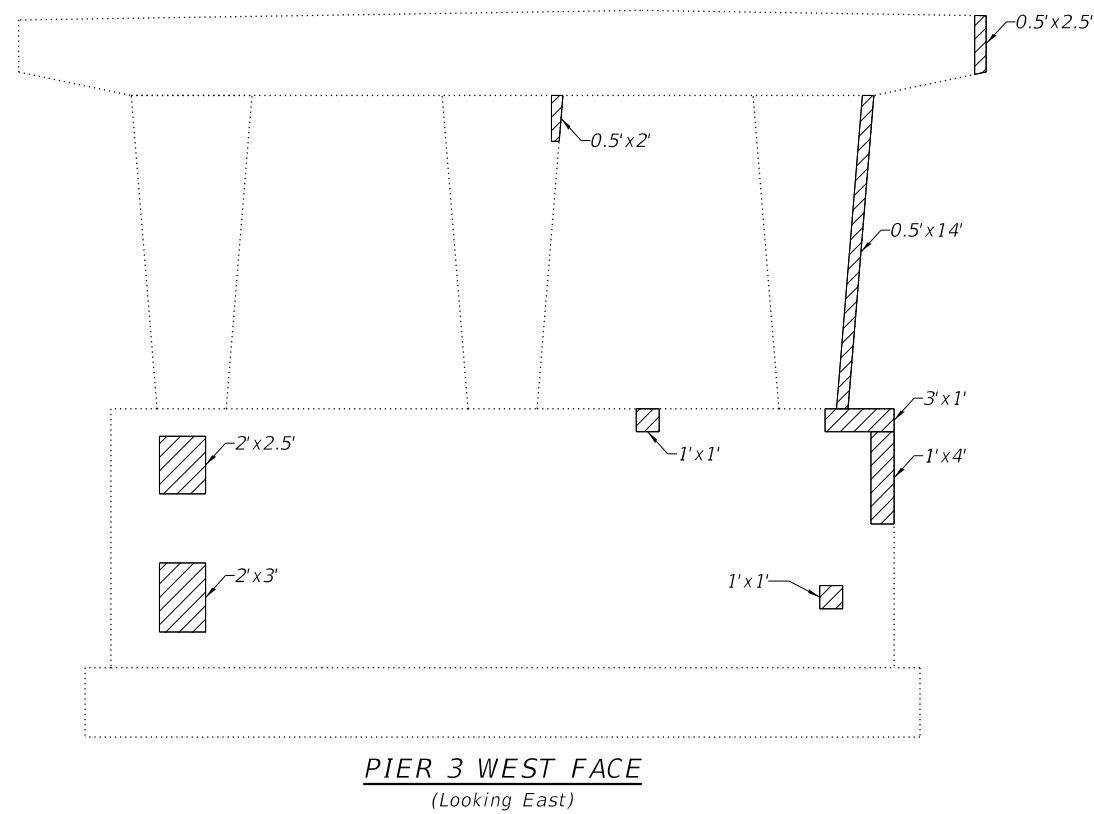
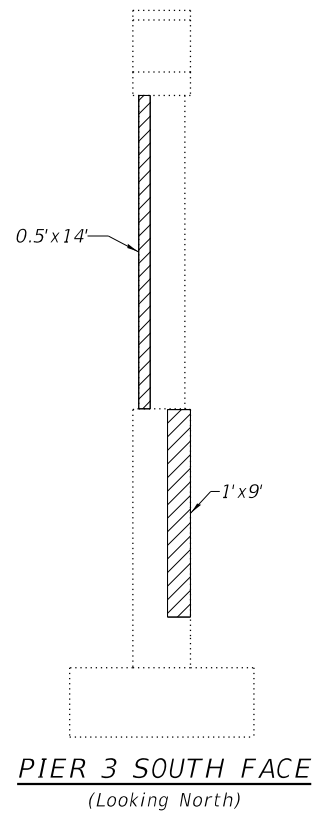
Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	222


- Notes:
 ① Repair areas shown are estimated. The Resident Engineer shall determine the repair areas and show actual locations on the as-built plans
 ② Areas on face not shown in view.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-015-Concrete Repair.dgn

USER NAME =	DESIGNED - KBC	REVISED -
	CHECKED - DGL	REVISED -
PLOT SCALE =	DRAWN - KBC	REVISED -
PLOT DATE = 9/4/2024	CHECKED - DGL	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	28
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	



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

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	115

Notes:
 ① Repair areas shown are estimated. The Resident Engineer shall determine the repair areas and show actual locations on the as-built plans

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-016-Concrete Repair.dgn



USER NAME =	DESIGNED - KBC	REVISED -
	CHECKED - DGL	REVISED -
PLOT SCALE =	DRAWN - KBC	REVISED -
PLOT DATE = 9/4/2024	CHECKED - DGL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE REPAIR
STRUCTURE NO. 060-6702**

SHEET 16 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	29
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97846	

BENCHMARK: FIRE HYDRANT AT TOWNSHIP PARK ENTRANCE.
 4" IN WELLER AT TOP OF HYDRANT.
 ELEV. 570.55

FILE NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	JAN 1989	37	30

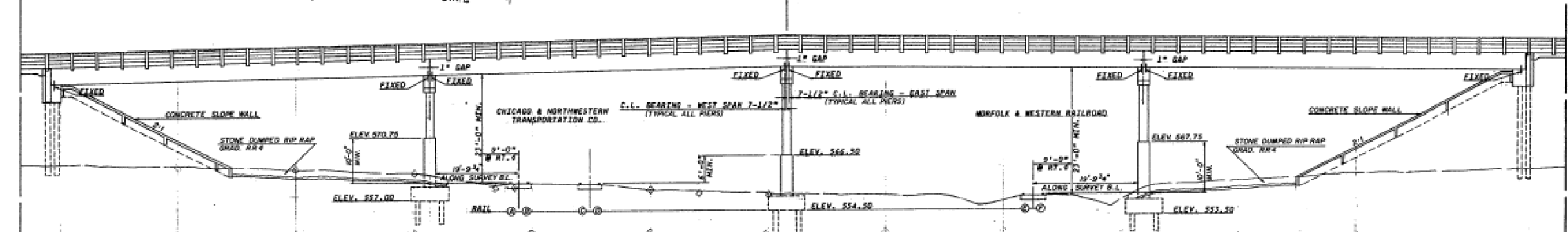
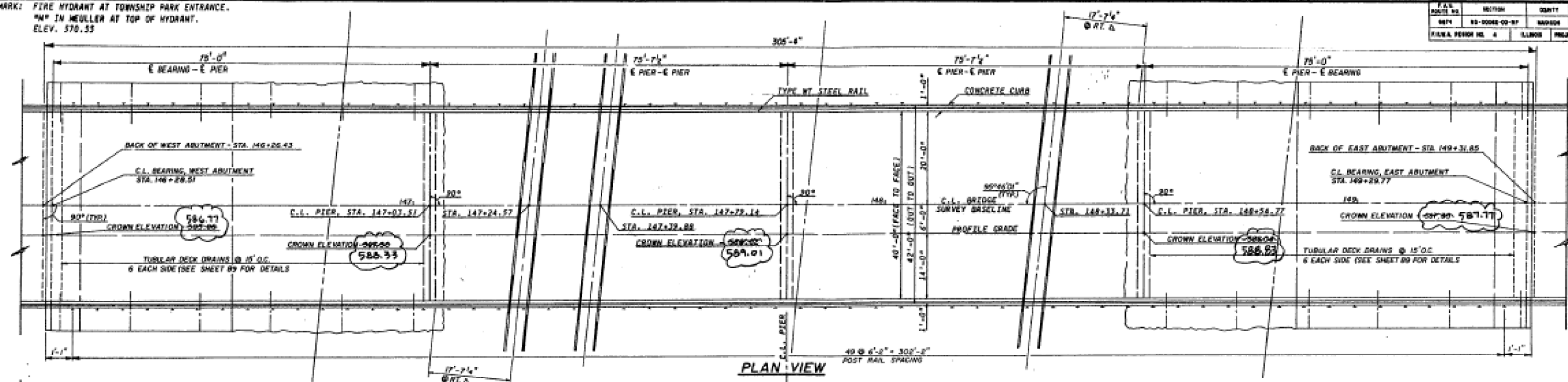


TABLE OF SPOT ELEVATIONS

AZEL	NORTH				SOUTH				
	200'	150'	100'	50'	0'	50'	100'	150'	200'
A	561.10	560.84	560.88	560.87	560.48	560.17	559.94	559.62	
B	561.01	560.81	560.74	560.73	560.39	560.05	559.83	559.75	
C	559.97	559.90	560.20	560.44	560.13	559.74	559.52	559.42	559.27
D	559.20	559.83	560.11	560.31	560.08	559.64	559.42	559.33	559.18
E	556.81	557.10	557.40	557.73	557.97	558.32	558.71	559.07	559.28
F	554.51	554.79	557.09	557.47	557.84	558.06	558.41	558.77	559.13

TABLE OF BORING LOCATIONS

BORING NO.	STATION	OFFSET
1	148+72	28.0' RT
2	148+87.57	26.0' RT
3	148+93	28.0' RT
4	149+00	27.0' RT
5	150+10	1.4' RT
6	150+03	13.0' RT
7	146+78	75.0' LT
8	147+27	84.0' LT
9	148+03	39.0' LT

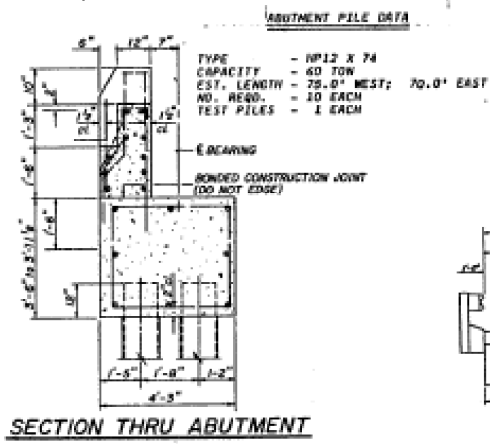
UPON REMOVAL OF THE EXISTING PAVEMENT AND ADJACENT ITEMS, SHAPE THE AREA TO MATCH THE CROSS SECTION OF THE UNDISTURBED GROUND IMMEDIATELY ADJACENT TO THE PROJECT.

GENERAL NOTES

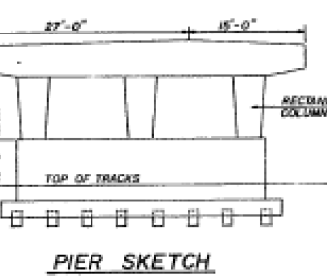
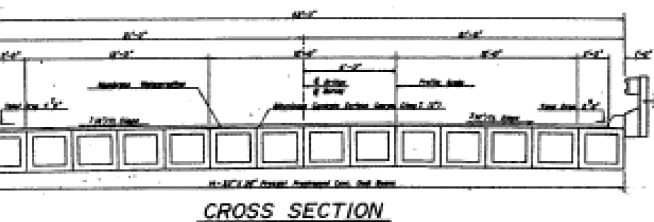
- SEE PROPOSAL FOR BORING DATA.
- REINFORCEMENT BARS SHALL CONFORM TO REQUIREMENTS OF ASTM A-31 OR A-33 GRADE 60.
- THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 505.06 OF THE STANDARD SPECIFICATION EXCEPT THAT THE SURFACE SHALL NOT BE ROUGHENED BY BROOMING. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS, AND THE TOP EDGE OF KEYS SHALL BE ROUNDED ON CHAMFERED A MINIMUM OF 1/4".
- A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FORM PRECAST PRESTRESSED CONCRETE DECK BEAMS.
- PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

C. & N.W. R.R./N. & W. R.R.
 BUILT 1908 BY
 CITY OF EDWARDSVILLE
 F.A.U. RT. 0874 SEC. 83-00062-00-RP
 S.A. PROJ. DE-096018011
 STA. 147+79.14 LOADING NS 20
 STR. NO. 060-6702

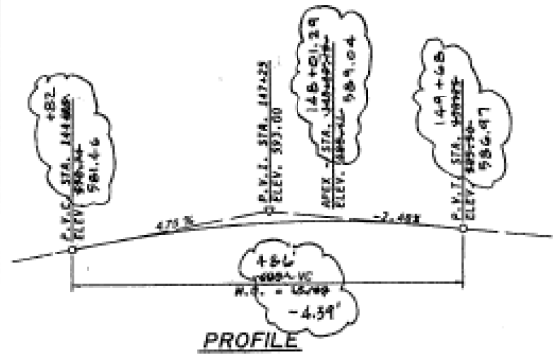
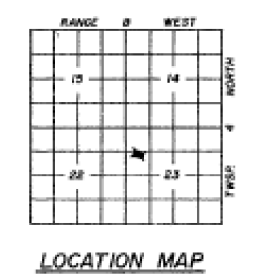
William S. Flagg 5/27/89
 STRUCTURAL ENGINEER NO. 1085



ABUTMENT PILE DATA
 TYPE - NP12 X 74
 CAPACITY - 60 TON
 EST. LENGTH - 75.0' WEST; 70.0' EAST
 NO. REQD. - 10 EACH
 TEST PILES - 1 EACH



PIER PILE DATA
 TYPE - NP12 X 74
 CAPACITY - 53 TON
 EST. LENGTH - 30'
 NO. REQD. - 15 EACH
 TEST PILES - 1 EACH



FLAGG & ASSOCIATES, INC.
 CONSULTING ENGINEERS AND SURVEYORS
 8-A BINDER HILL COURT EDWARDSVILLE, ILLINOIS 62205
 TELEPHONE 618-588-5185

PROJECT: KELLER CO. / CENTER GROVE ROAD
 TITLE: GENERAL PLAN AND ELEVATION (T.S. & L.I.)
 FILE: CENTER GROVE ROAD OVER CB RR AND NW RAILROADS
 DATE: 1/19/89
 DRAWN: SW III
 CHECKED: JEH
 DATE: JAN, 1989
 PRINTED: JEH
 JOB NO.: 301-3996
 SHEET: B1
 OF

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-017-Existing Plans.dgn



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
 STRUCTURE NO. 060-6702
 SHEET 17 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	30

CONTRACT NO. 97846
 ILLINOIS FED. AID PROJECT

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	85-00042-DD-MP	MADISON	19	12
F.H.W.A. REGION NO. 4		ILLINOIS	PROJECT DE-00501800	

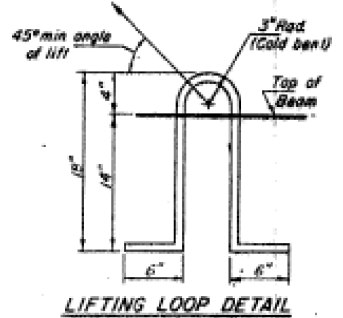
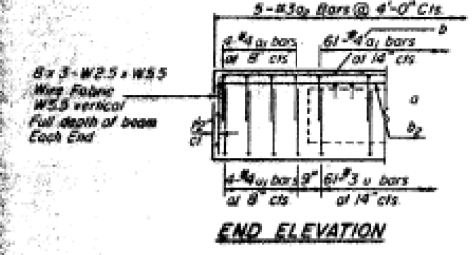
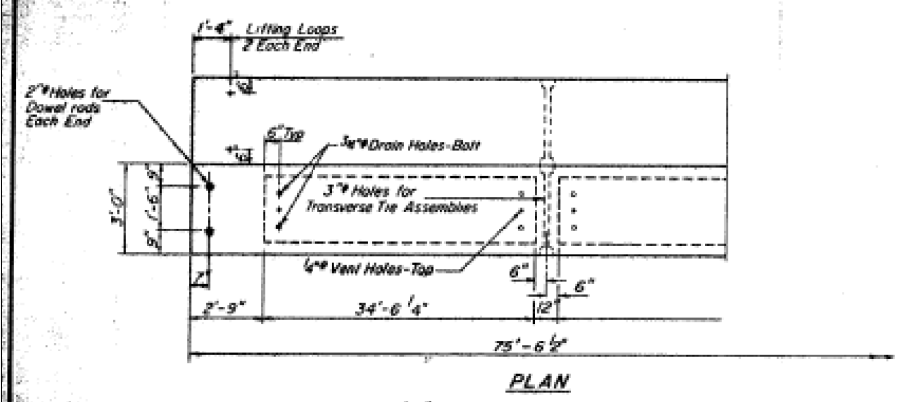
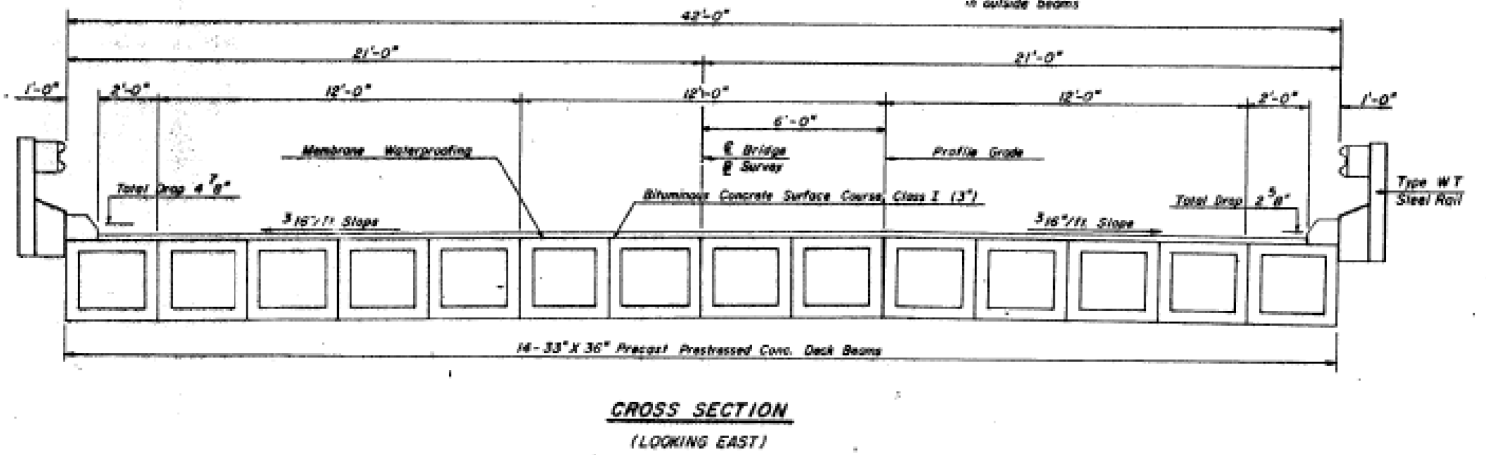
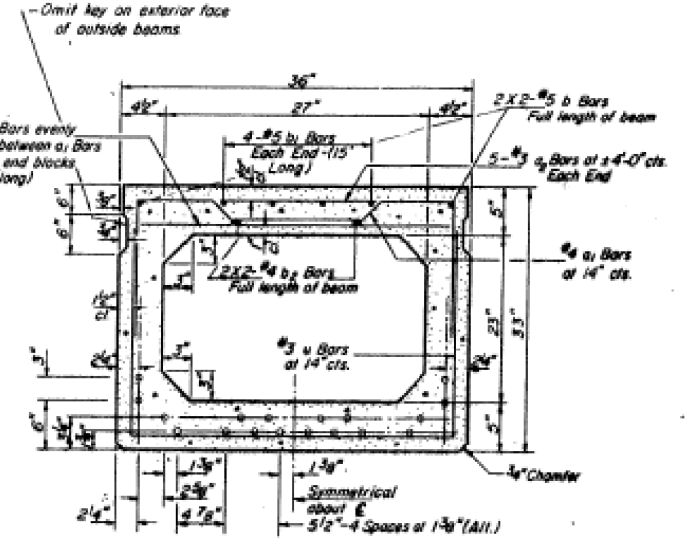
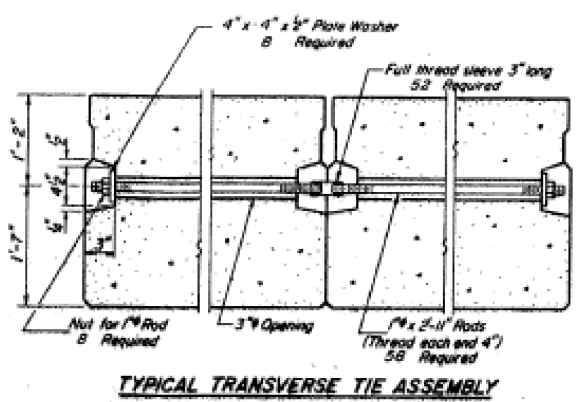
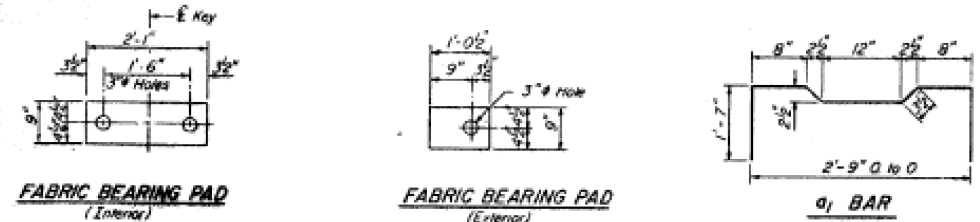


TABLE SHOWING REQUIRED SIZE OF LIFTING LOOPS

Gross Weight of Beam (Lbs.)	Strands Required at each point of lifting - 270 ksi.
40,000	2 - 7/16" or 1/2"
60,000	3 - 7/16" or 1/2"

NOTE: The loop shall be formed in a manner such that all strands are engaged during lifting.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	6720	3	2'-0"	U
a1	3864	4	6'-1"	U
a2	560	3	2'-0"	U
b	224	5	38'-0"	U
b1	448	5	15'-0"	U
b2	224	4	38'-0"	U
u	3	7'-3"		U
u1	4	7'-3"		U
Precast Prestressed Concrete Deck Beams	Sq Ft	12,702		
Membrane Waterproofing	Sq Yd	1,353		
Bituminous Concrete Surface Course, Class I	Ton	230		

NOTES

Pressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq in. Lifting loops shall be 3/4" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 46000 lbs. or 3-1/2 # - 270 ksi strands, as shown. The 1/2" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Retrase Strength, fci, shall be 4000 p.s.i.

An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted.

See Sheet No. B10 for details of curb, rail anchor devices, and railing.

Reinforcement Bars are shown in the "Bill of Material" for information only. They will not be paid for separately but shall be included in the contract unit price per Sq Ft. for Precast Prestressed Concrete Deck Beams and no additional compensation will be allowed.

FLAGG & ASSOCIATES, INC.
 CONSULTING ENGINEERS AND SURVEYORS
 814 CENTER HILL COURT, SPRINGFIELD, ILLINOIS 62761
 TELEPHONE 513-2331

KELLER CO./CENTER GROVE ROAD CROSS SECTION B P.P.C. DECK BEAMS

B3

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-018-Existing Plans.dgn

OATES ASSOCIATES
 ILLINOIS DESIGN FIRM LICENSE NO: 184.001115

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

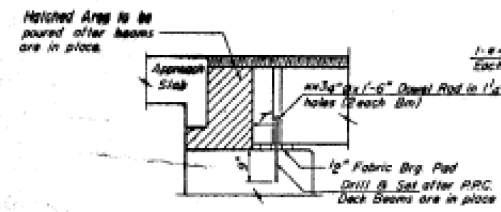
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING PLANS STRUCTURE NO. 060-6702

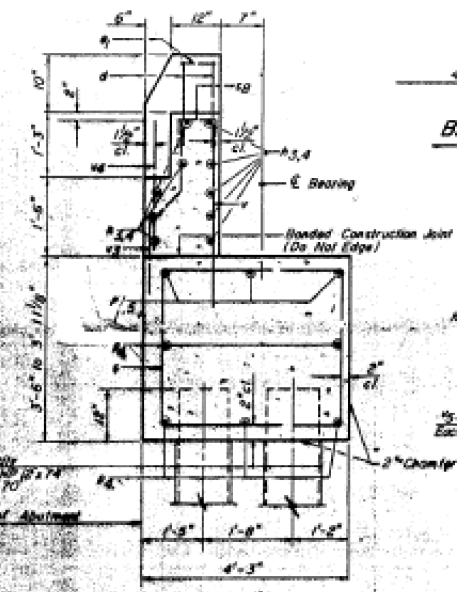
SHEET 18 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	31
CONTRACT NO. 97846			ILLINOIS FED. AD PROJECT	

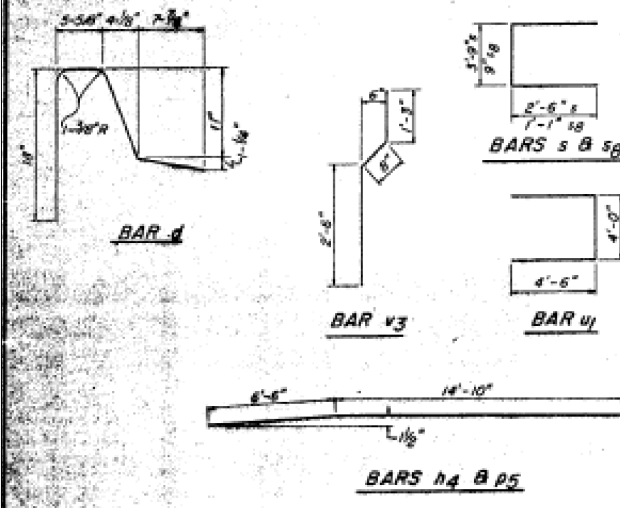
* Upr. Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.



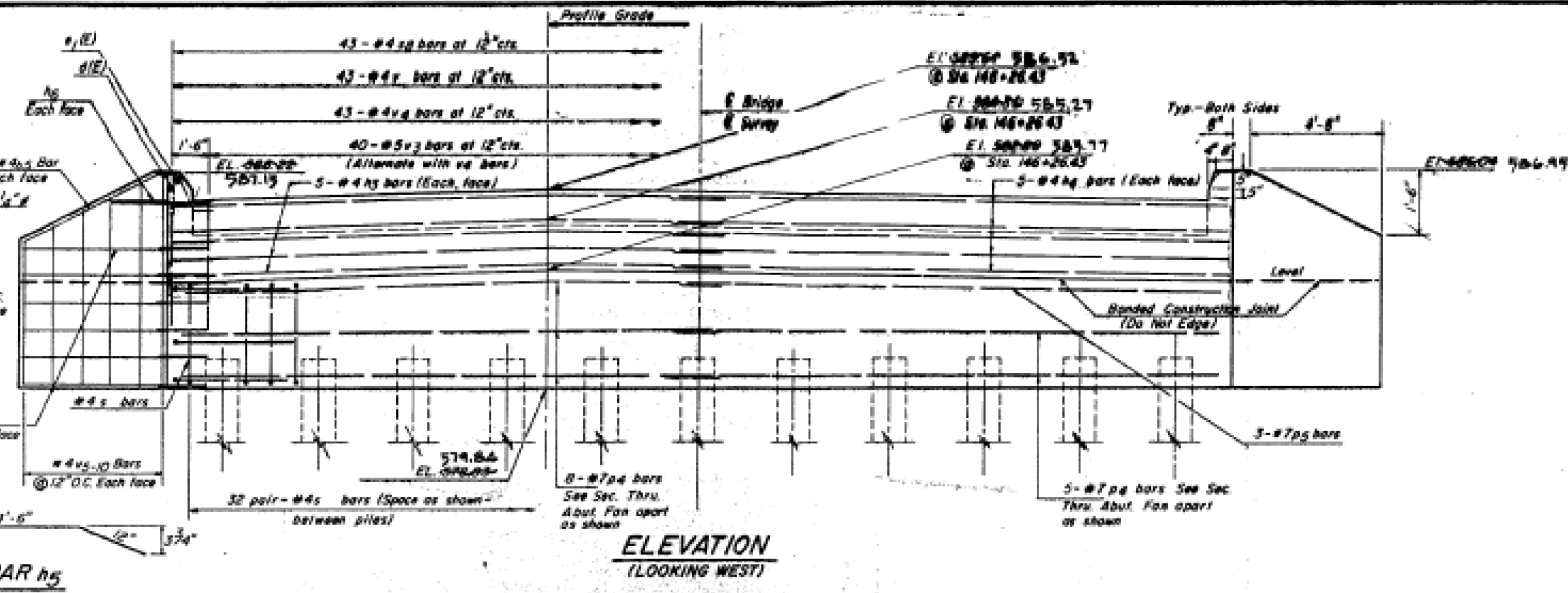
FIXED ABUT
NO SCALE



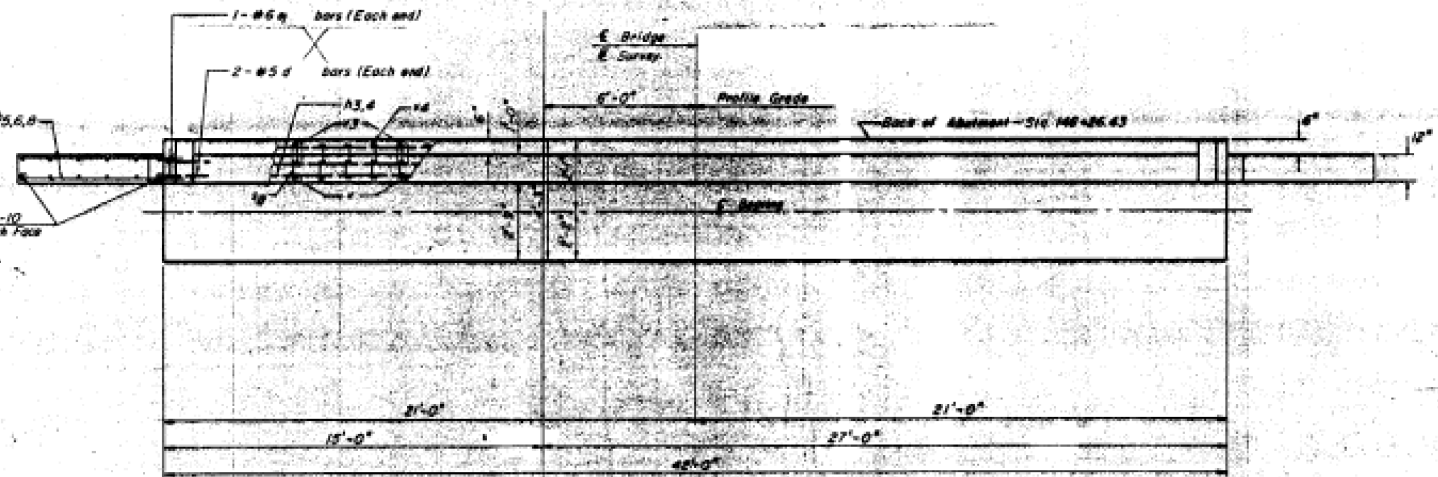
SECTION THRU ABUTMENT



NOTES:
1. Space reinforcement in abutment near to miss PPC Deck Beam steel rods.

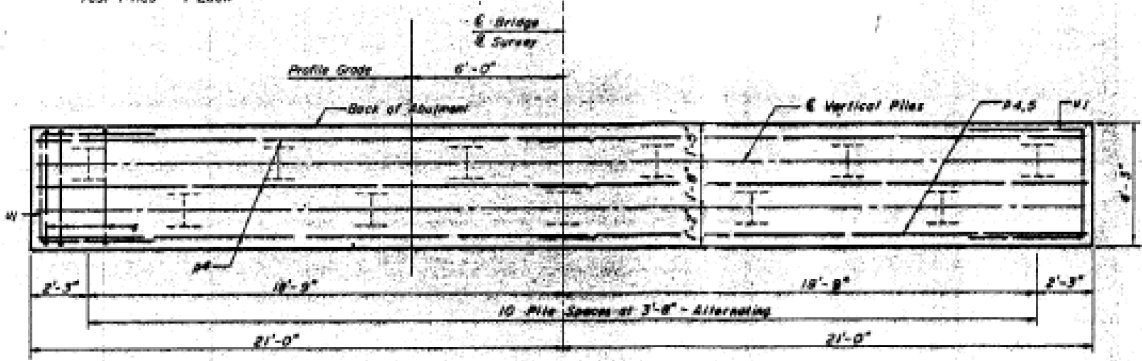


BAR h5



TOP VIEW

PILE DATA
Type - HP 12 x 74
Capacity - 60 Ton
Est. Length - 70
No. Required - 10 Each
Test Piles - 1 Each



PLAN-PILE CAP

F.A.U. ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
887M	05-00062-00-RP	MADISON	19	24
F.H.W.A. REGION NO. 4		ILLINOIS	PROJECT DE-0068000	

WEST ABUTMENT				
BILL OF MATERIAL				
BAR NO.	SIZE	LENGTH	SHAPE	
h1(E)	4"	5	3'-0"	[Diagram of bar shapes]
h1(E)	2	6	1'-3"	
h3	10	5	21'-4"	
h4	10	5	21'-4"	
h5	4	4	5'-0"	
h6	4	4	2'-9"	
h7	4	4	5'-0"	
h8	24	4	6'-0"	
h9	12	7	21'-4"	
h10	3	7	21'-4"	
u1	46	4	8'-0"	
u2	43	4	2'-11"	
u3	4	4	13'-0"	
u4	43	4	4'-0"	
u5	40	5	4'-0"	
u6	47	4	2'-0"	
u7	2	4	10'-0"	
u8	2	4	12'-4"	
u9	2	4	12'-0"	
u10	2	4	12'-0"	
u11	2	4	13'-0"	
u12	2	4	13'-0"	
u13	2	4	13'-0"	
u14	2	4	13'-0"	

WINDMILL	
NORTH	SOUTH
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"
5'-0"	5'-0"

Cut bars as indicated to fit appropriate wingwell	Class X Concrete	Cu. Yds.	32.9
	Reinforcement Bars	Lbs.	2,370
	Reinforcement Bars (Epoxy Coated)	Lbs.	30
	Furnishing, Driving Steel Piles HP 12 x 74	L.F.	700
	Test Piles	ea.	1

FLAGG & ASSOCIATES, INC.
CONSULTING ENGINEERS AND SURVEYORS
301 W. MONROE STREET, SUITE 200, CHICAGO, ILL. 60604
TEL: (312) 467-1000 FAX: (312) 467-1001

301 W. MONROE STREET, SUITE 200, CHICAGO, ILL. 60604

BA

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-019-Existing Plans.dgn



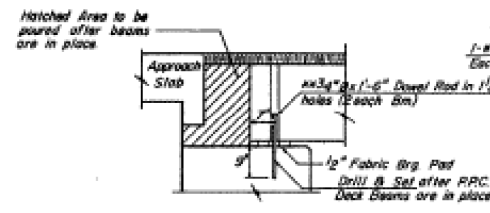
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

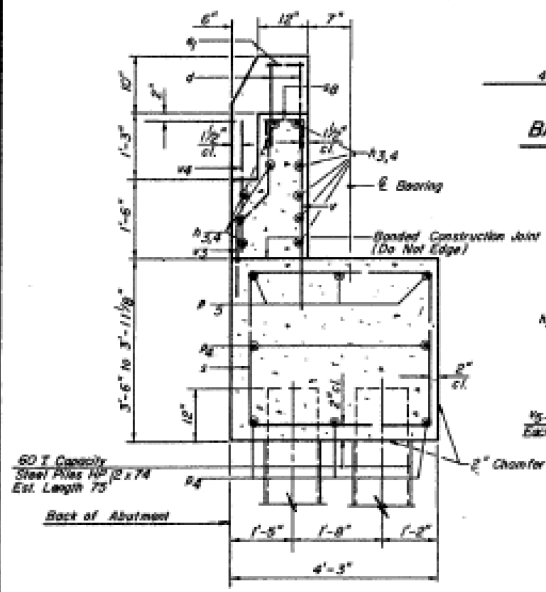
EXISTING PLANS
STRUCTURE NO. 060-6702
SHEET 19 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
887A	20-00109-01-BR	MADISON	37	32
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

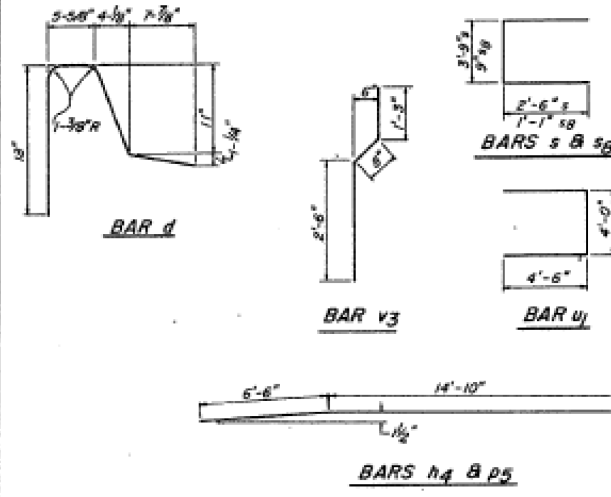
** Lower Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.



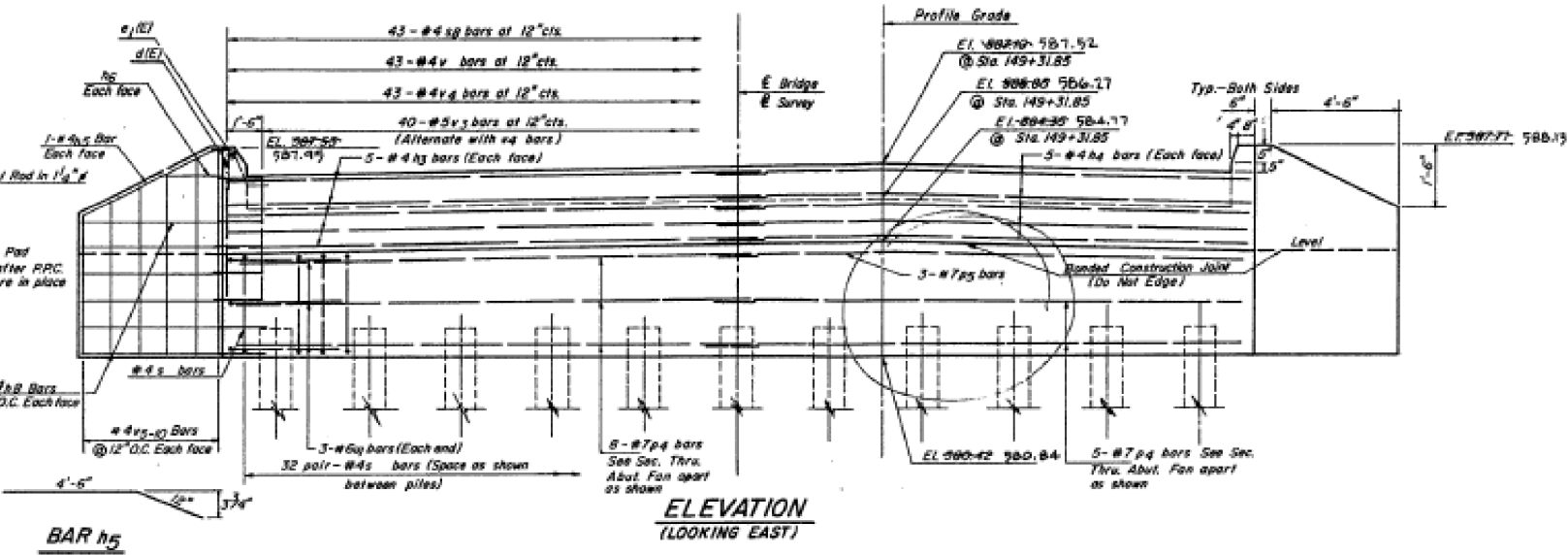
FIXED ABUT
NO SCALE



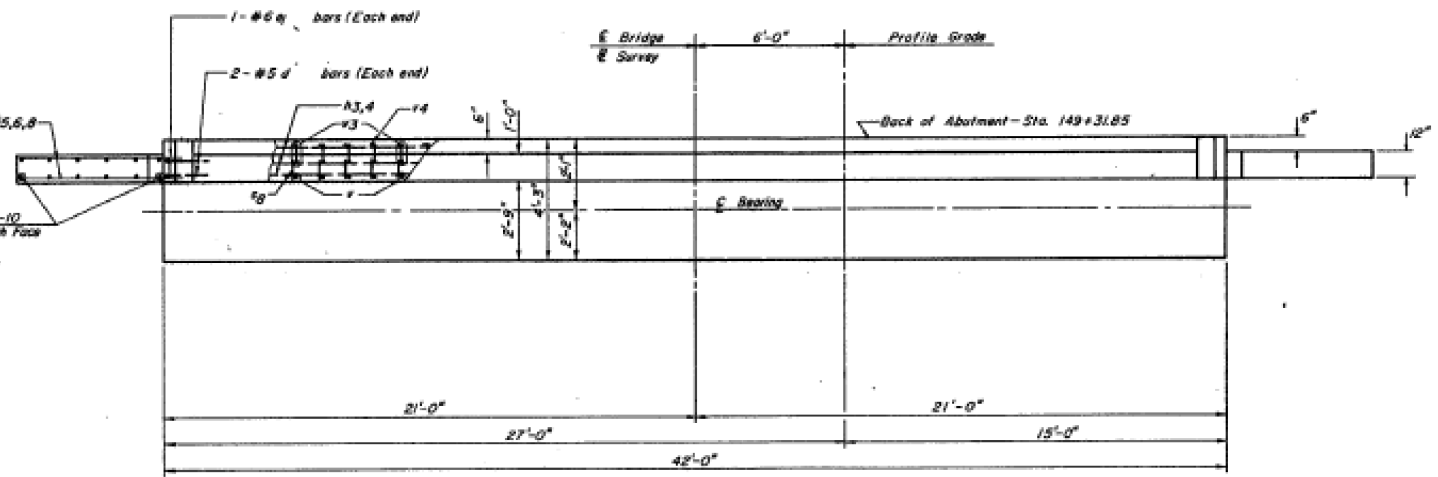
SECTION THRU ABUTMENT



NOTES:
1. Space reinforcement in abutment seat to miss PPC Deck Beam dowel rods.

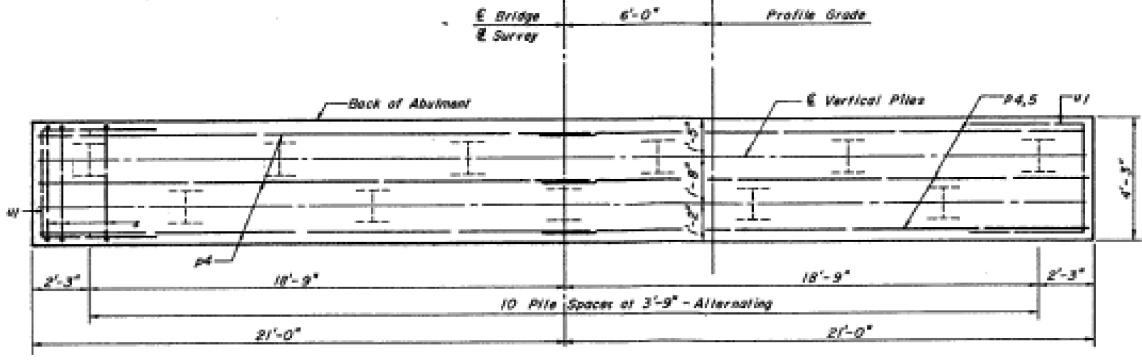


ELEVATION
(LOOKING EAST)



TOP VIEW

PILE DATA
Type - HP 12 x 74
Capacity - 60 Ton
Est. Length - 75
No. Required - 10 Each
Test Piles - 1 Each



PLAN-PILE CAP

BARS INDICATED THUS 20 x 3 - #5, ETC., INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

WINDMILL	
NORTH	SOUTH
5'-4"	5'-6"
5'-7"	5'-9"
5'-11"	6'-1"
6'-3"	6'-5"
6'-7"	6'-9"
6'-9"	6'-11"

* Cut bars as indicated to fit appropriate Windmill

EAST ABUTMENT BILL OF MATERIAL				
BAR NO.	SIZE	LENGTH	SHAPE	
d (E) 5	5	3'-9"		
a ₂ (E) 2	6	1'-3"		
h ₃ 10	5	21'-4"		
h ₄ 10	5	21'-4"		
h ₅ 4	6	5'-6"		
h ₆ 4	4	4'-5"		
h ₆ 24	4	7'-4"		
p ₄ 13	7	21'-4"		
p ₅ 3	7	21'-4"		
s	64	4	8'-9"	
s ₈ 43	4	2'-11"		
u ₁ 6	6	13'-0"		
v	43	4	4'-4"	
v ₃ 40	5	4'-5"		
v ₄ 43	4	2'-6"		
v ₅ 4	4	10'-10"		
v ₆ 4	4	11'-4"		
v ₇ 4	4	12'-0"		
v ₈ 4	4	12'-8"		
v ₉ 4	4	13'-4"		
v ₁₀ 4	4	13'-8"		

Class X Concrete	Cu. Yds.	32.9
Reinforcement Bars	Lbs.	2,370
Reinforcement Bars (Easy Coat)	Lbs.	30
Furnishing, Driving Steel Piles HP 12 x 74	L.F.	750
Test Piles	Ex.	1

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	85-00062-00-RP	MADISON	19	14

F.H.W.A. REGION NO. 4	ILLINOIS	PROJECT DE-0000900
-----------------------	----------	--------------------

FLAGG & ASSOCIATES, INC.
CONSULTING ENGINEERS AND SURVEYORS
8-A GINDER HILL COURT EDWARDSVILLE, ILLINOIS 62205
TELEPHONE 815-255-4788

PROJECT TITLE: KELLER CO. / CENTER GROVE ROAD
SHEET TITLE: ABUTMENT - EAST
DATE: 2/19/89
BY: JEH/STB
DWG NO: 85-00062-00-RP

FIELD EN. PG.
PROJECT MANAGER: JEH
DESIGNER: FLAGG
DRAWN: SW III
CHECKED:
DATE: FEB, 1989
PRINTED:
JOB NO.: 301-3996

SHEET
B5
OF

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-020-Existing Plans.dgn

OATES ASSOCIATES
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

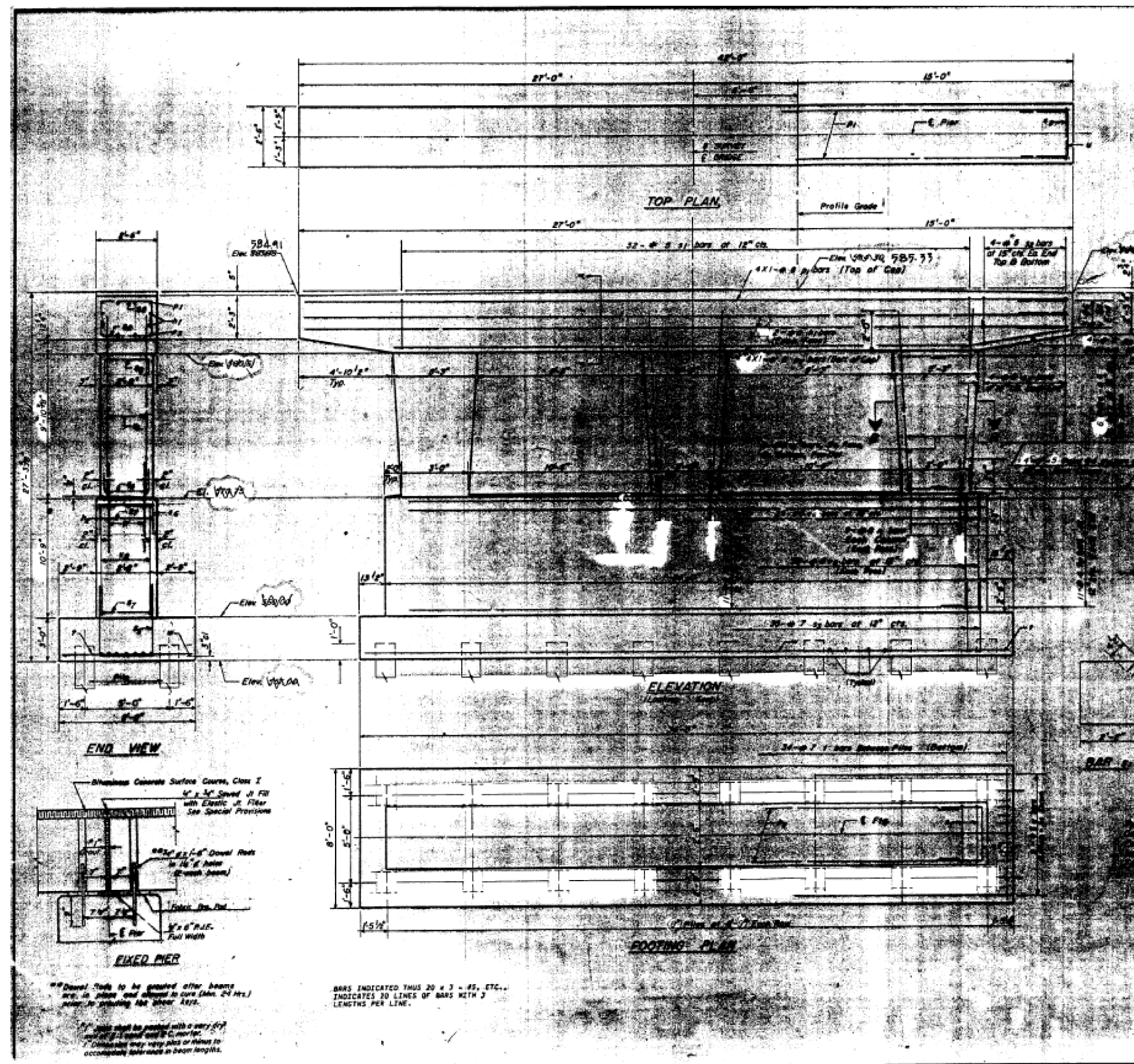
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

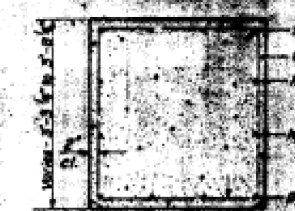
EXISTING PLANS
STRUCTURE NO. 060-6702
SHEET 20 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	33
				CONTRACT NO. 97846
ILLINOIS FED. AID PROJECT				

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	34
F.A.U. REGION NO. 4		ILLINOIS	PROJECT DC-0001001	



Note:
Specify reinforcement in cap to miss devel rods.
All edges shall have standard 1/4" chamfers unless as noted. No chamfer at top of pier cap.



584.91
Elev. 98060

585.73
Elev. 98130

BAR SCHEDULE
A & B DIMENSIONS

NO.	SIZE	LENGTH	SHAPE
h1	4	42'-8"	—
h2	22	33'-8"	—
n	30	4'-0"	—
p1	4	41'-8"	—
p2	4	32'-3"	—
p3	4	4'-10"	—
s1	32	11'-0"	—
s2	16	6'-0"	—
s3	35	12'-8"	—
s4	30	6'-4"	—
s5	36	7'-10"	—
s6	35	6'-2"	—
s7	22	8'-6"	—
t	34	7'-8"	—
u	6	11'-2"	—
v1	50	11'-8"	—
v2	70	10'-5"	—
w	9	35'-11"	—

PIER NO. 1
BILL OF MATERIAL

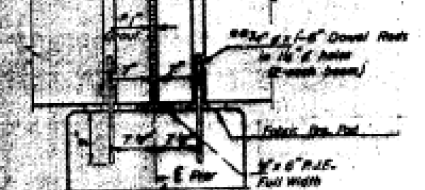
BAR	NO.	SIZE	LENGTH	SHAPE
h1	4	5	42'-8"	—
h2	22	6	33'-8"	—
n	30	8	4'-0"	—
p1	4	8	41'-8"	—
p2	4	8	32'-3"	—
p3	4	8	4'-10"	—
s1	32	5	11'-0"	—
s2	16	5	6'-0"	—
s3	35	7	12'-8"	—
s4	30	4	6'-4"	—
s5	36	4	7'-10"	—
s6	35	3	6'-2"	—
s7	22	4	8'-6"	—
t	34	7	7'-8"	—
u	6	6	11'-2"	—
v1	50	8	11'-8"	—
v2	70	6	10'-5"	—
w	9	5	35'-11"	—

Class X Concrete
Reinforcement Bars
Furnishing, Driving
Steel Piles
Fast Piles

Cu. Yds. 7550
Lbs. 750
Fa. 1

301-3996
B6
OF

Divisions Concrete Surface Course, Class I
1/2" x 3/4" Spread JJ Fill
with Elastic JJ Filler
See Special Provisions



FIXED PIER

**Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 Hrs.) prior to placing the shear keys.
1/2" bars shall be grouted with a very dry mix of 1 part cement and 3 parts mortar.
Dimensions may vary plus or minus to accommodate tolerances in beam lengths.

BAR INDICATED THUS 20 x 3 - #5, ETC., INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-021-Existing Plans.dgn



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

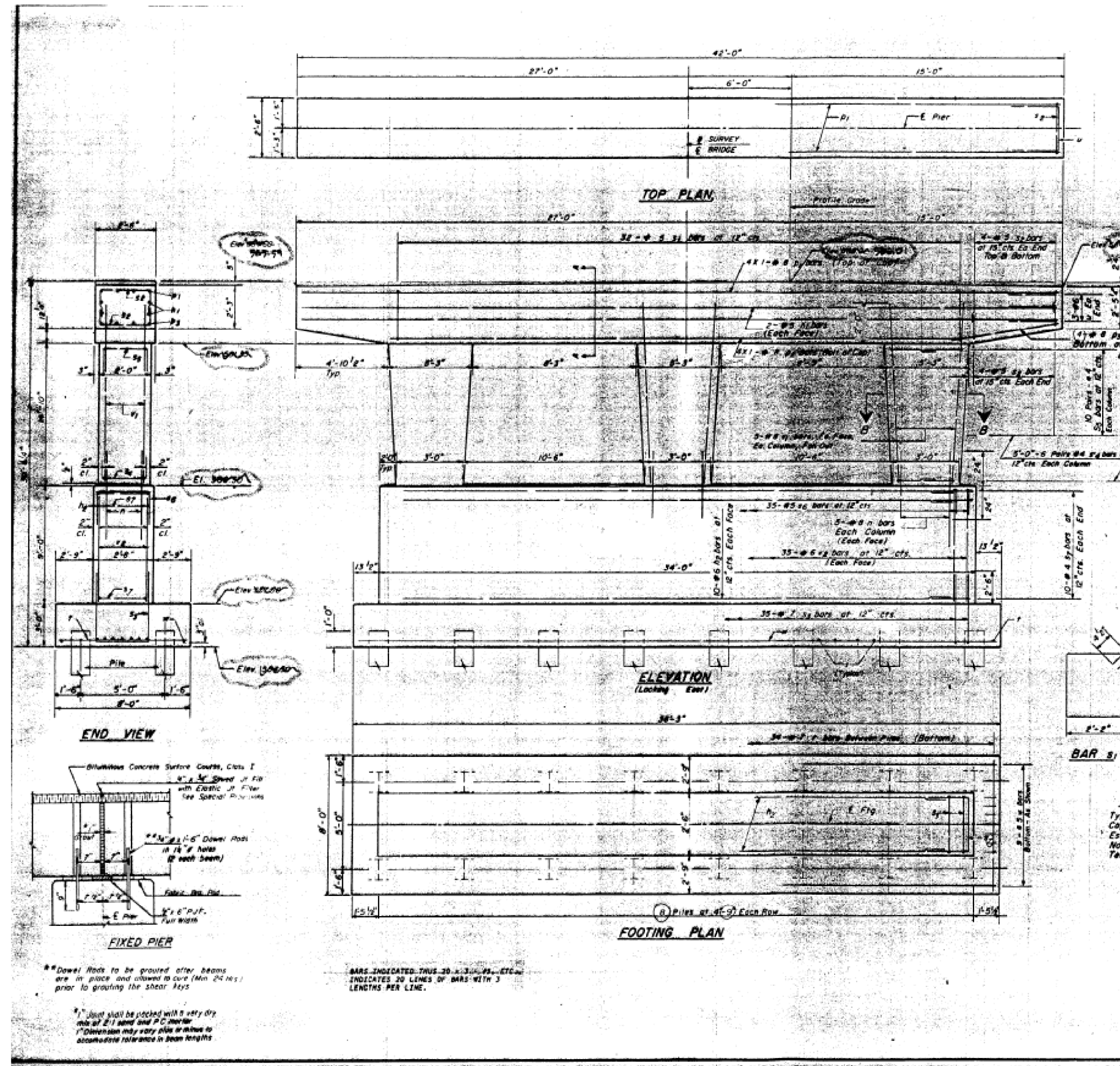
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 060-6702

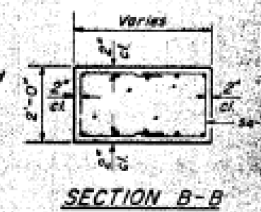
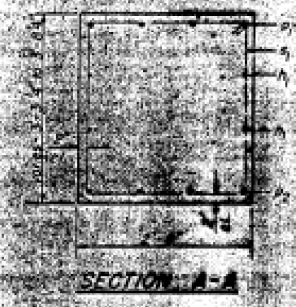
SHEET 21 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	34
				CONTRACT NO. 97846
ILLINOIS FED. AID PROJECT				

ROUTE NO.	SECTION	COUNTY	SHEETS	NO.
8874	20-00109-01-BR	MADISON	37	35
FHW A REGION NO.	ILLINOIS	PROJECT	DE'00000001	
4				



Note
Space reinforcement in cap to miss dowel rods.
All edges shall have standard 3/4" chamfers except as noted.
No chamfer at top of pier cap.



BARS 5, 7, 8, 4, 3, 6, 7
A & B DIMENSIONS

Bar	A	B
5g	2'-2"	1'-11"
5y	2'-3"	5'-3"
5z	1'-8"	2'-4"
5x	7'-8"	3'-1"
5b	2'-2"	2'-0"
5r	2'-2"	3'-2"

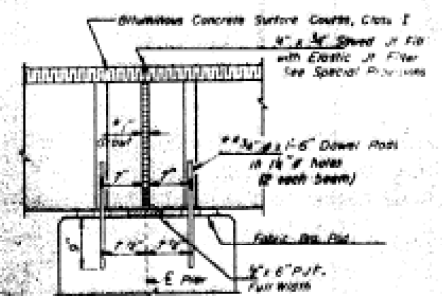
PIER NO. 2
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
b1	4	5	41'-8"	
b2	20	6	33'-8"	
n	30	8	4'-0"	
p1	4	8	41'-8"	
p2	4	8	32'-3"	
p3	8	8	4'-10"	
s1	32	5	11'-0"	
s2	16	5	6'-0"	
s3	35	7	12'-8"	
s4	36	4	6'-4"	
s5	40	4	7'-10"	
s6	35	5	6'-2"	
s7	20	4	8'-4"	
t	34	7	7'-8"	
v	6	6	11'-2"	
w	30	8	16'-3"	
x2	70	6	8'-8"	
w	9	5	35'-11"	

Class 3 Concrete
Reinforcement Bars
Furnishing, Driving
Steel Piles
Test Piles

Cu. Yds. 7810
Lbs. 750
L.F. 750
Sq. 1

PILE DATA
Type - HP 12 x 74
Capacity - 55 Ton
Est. Length - 50
No. Req. - 15 Each
Test Piles - 1 Each



**Dowel Rods to be grouted after beams are in place and allowed to cure (Min 24 hrs) prior to grouting the shear keys

1/2" joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar
1" dimension may vary plus or minus to accommodate tolerance in beam lengths

BARS INDICATED THUS 20 x 30, 25, ETC INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridg\Final Plans\Microstation\0606702-022-Existing Plans.dgn



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 060-6702

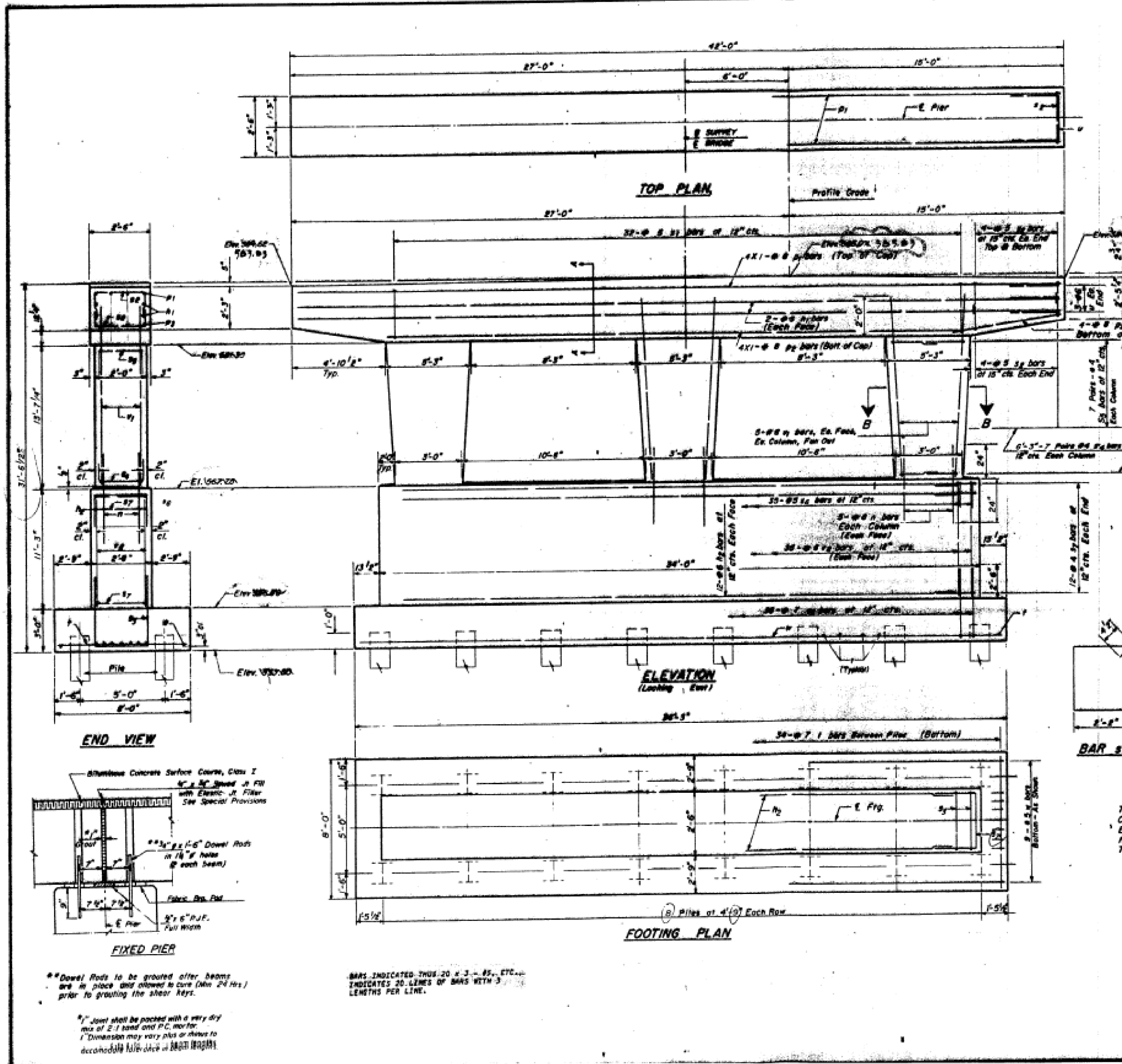
SHEET 22 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	35
				CONTRACT NO. 97846
				ILLINOIS FED. AID PROJECT

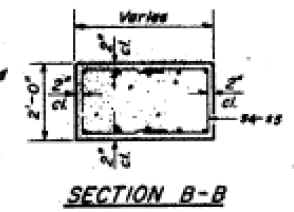
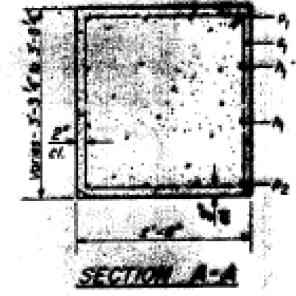
FLAGG & ASSOCIATES, INC.
 CONSULTING ENGINEERS AND SURVEYORS
 772 KELLER CO. / CENTER GROVE ROAD
 PIER NO. 2 ST. 147 + 79.14

B7

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	85-0002-00-RP	MADISON	19	17
F.H.W.A. REGION NO. 4		ILLINOIS	PROJECT DE-0060(001)	



Note:
Space reinforcement in cap to miss steel rods.
All edges shall have standard 1/4" chamfers except as noted. No chamfer at top of pier cap.



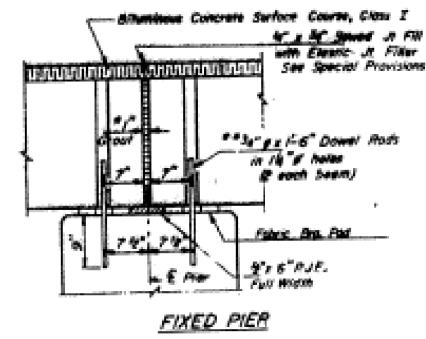
BARS 2,3,4,6,7
A & B DIMENSIONS

Bar	A	B
2	2'-2"	7'-11"
3	2'-2"	5'-5"
4	1'-0"	2'-0"
6	2'-2"	3'-7"
7	2'-2"	3'-8"

PIER NO. 3
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
2	4	3	41'-8"	
3	24	6	33'-8"	
4	30	8	4'-0"	
6	4	8	41'-8"	
7	4	8	32'-3"	
8	8	8	4'-10"	
9	32	5	12'-0"	
10	16	5	6'-0"	
11	35	7	12'-8"	
12	42	4	6'-4"	
13	42	4	7'-10"	
14	35	5	6'-2"	
15	24	8	8'-6"	
16	34	7	7'-8"	
17	6	6	11'-2"	
18	30	8	15'-5"	
19	30	6	10'-12"	
20	5	5	35'-12"	

PILE DATA
Type - HP12 x 74
Capacity - 55 Ton
Est. Length - 50'
No. Reqd. - 15 Each
Test Piles - 1 Each



**Dowel Rods to be grouted after beams are in place and allowed to cure (Min 24 hrs) prior to grouting the shear keys.
*Joint shall be packed with a very dry mix of E-1 sand and P.C. mortar. *Dimension may vary plus or minus to accommodate field joint at BRIDGE APPROACH.

BARS INDICATED THUS 20 x 3 - #5, ETC. INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

PLASS & ASSOCIATES, INC.
CONSULTING ENGINEERS AND SURVEYORS
2-A CHANDLER HILL COURT, CHANDLER HILL, ILLINOIS 62224
TEL: 618-336-3333

STATE OF ILLINOIS
KELLER CO CENTER GROVE ROAD
PIER NO. 3 STA 148+54.71

DATE: March, 1988
DRAWN: [Signature]
CHECKED: [Signature]
DESIGNED: [Signature]
PROJECT NO. 301-3996
SHEET 1 OF 1

FILE NAME: H:\P222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-023-Existing Plans.dgn

OATES ASSOCIATES
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO. 184.001115

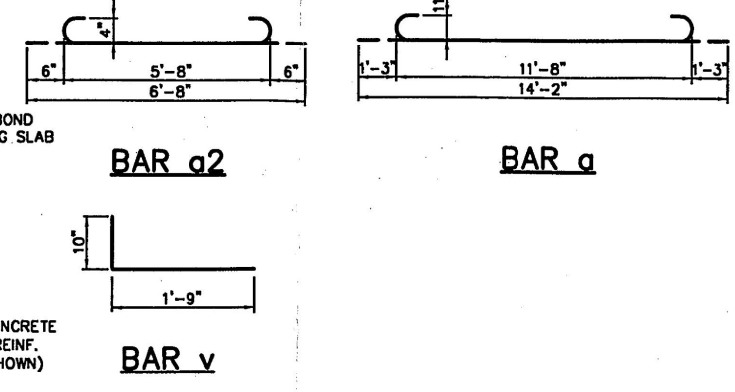
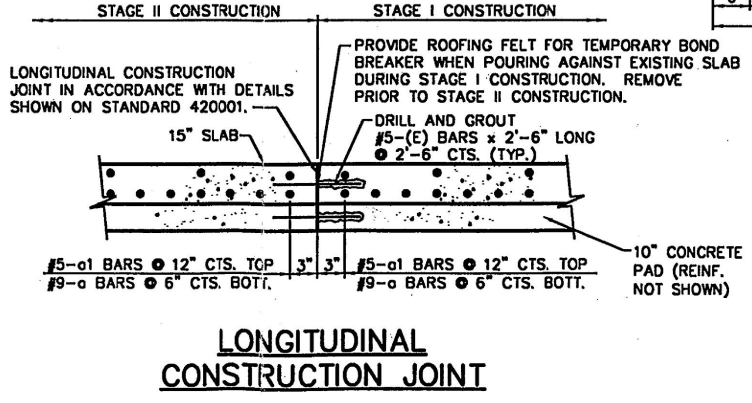
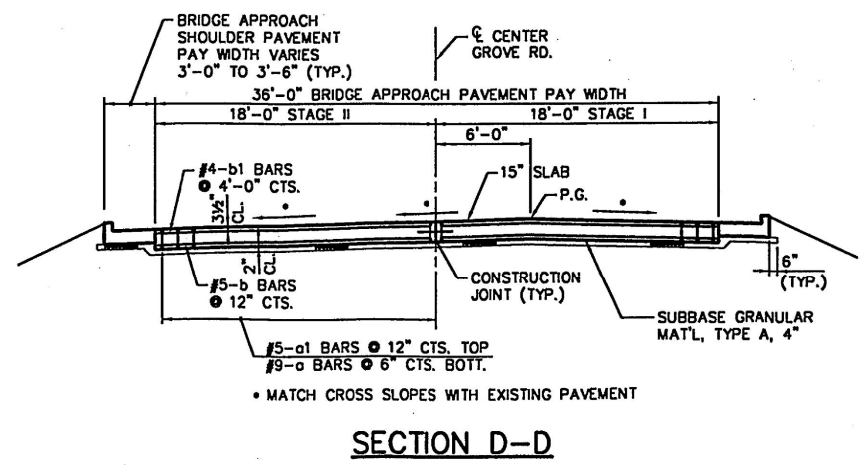
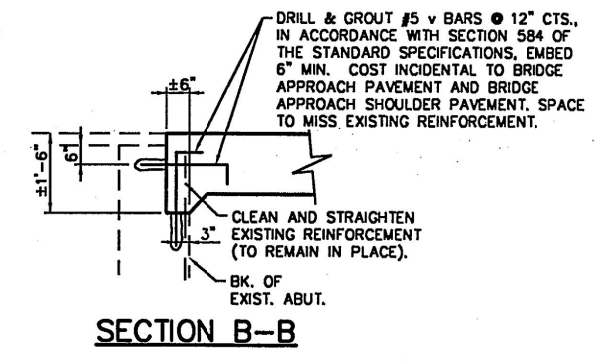
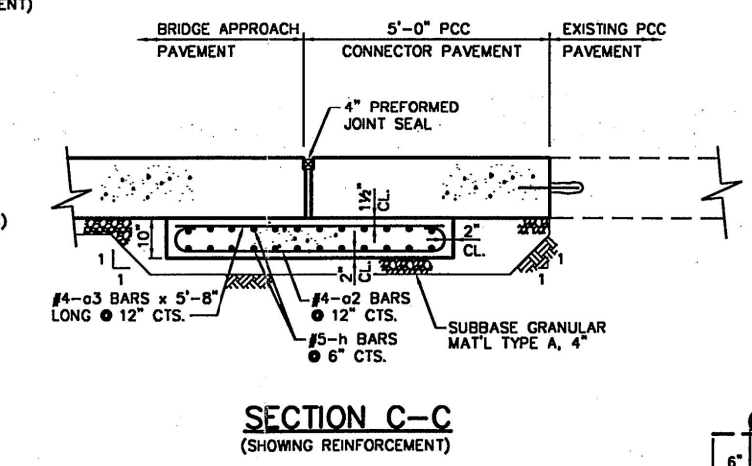
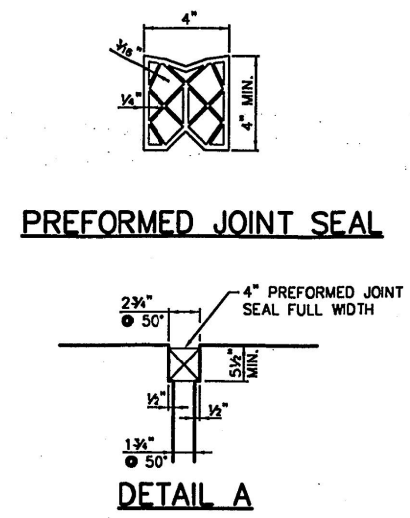
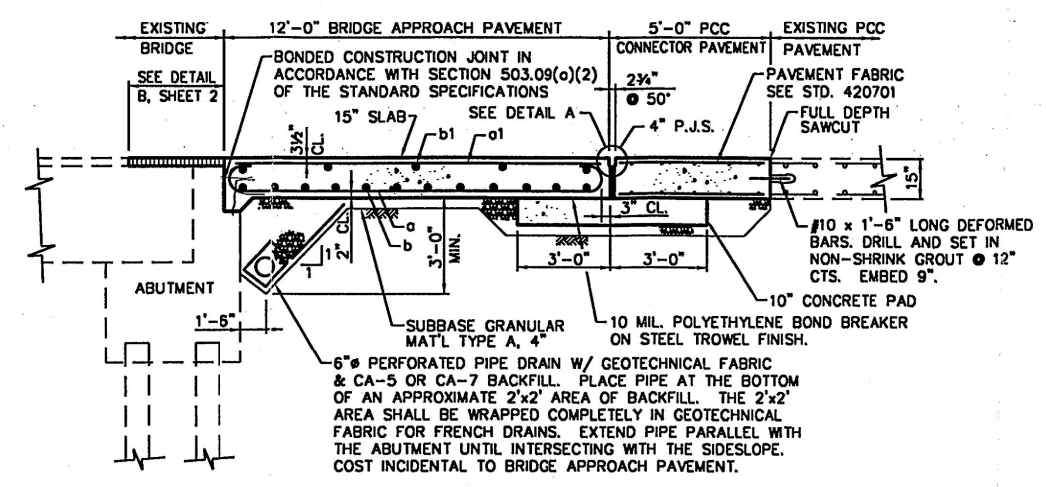
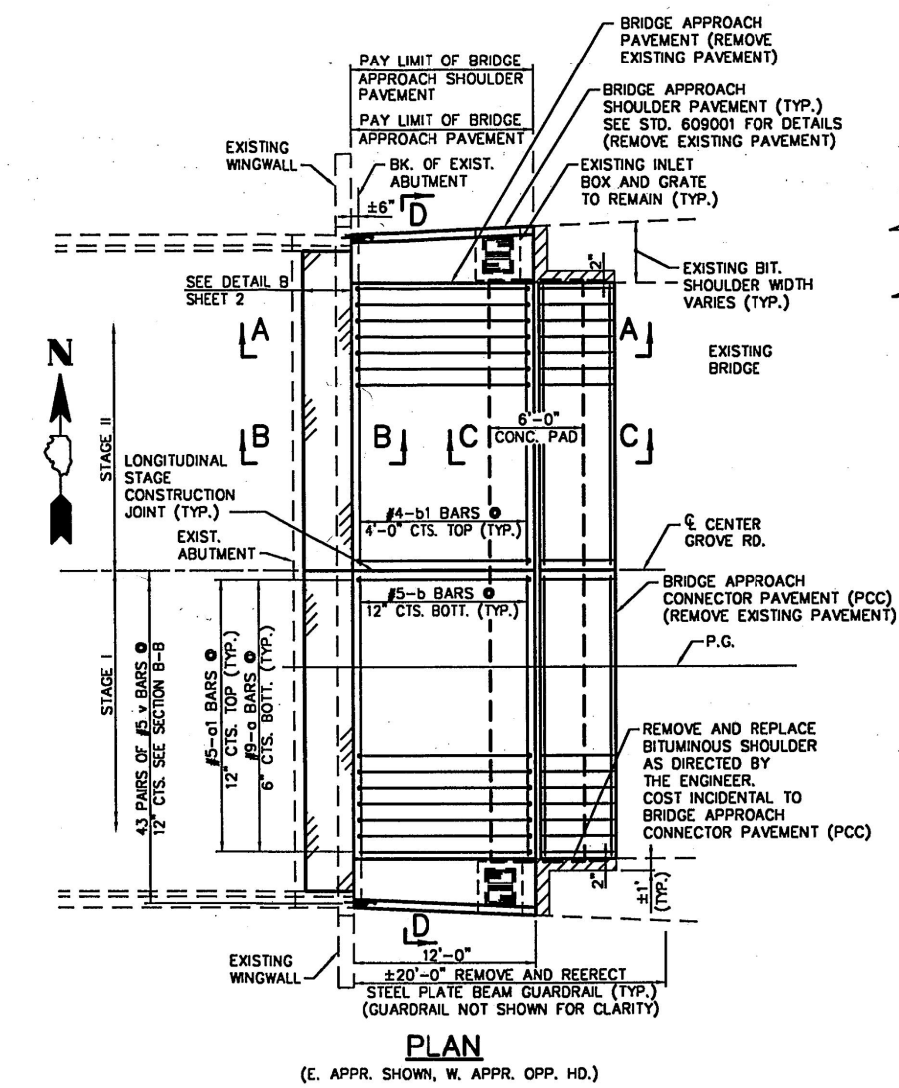
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 060-6702
SHEET 23 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	36
CONTRACT NO. 97846			ILLINOIS FED. AID PROJECT	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON	5	3
STA. TO STA.		BRIDGE APPROACH PAVEMENT		



DESIGN STRESSES
 $f_y = 60,000$ psi
 $f'_c = 3,500$ psi
 $n = 8.5$

- NOTES:**
- ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.
 - SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.
 - SEE STANDARD 420001 FOR DETAILS OF JOINTS NOT SHOWN.
 - SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

FILE NAME: H:\P\222030 - Center Grove Road Bridge\Bridge\Final Plans\Microstation\0606702-024-Existing_Plans.dgn

H:\P\20013\struct_revised\Appr_shtR.dwg Thu Sep 14 12:42:15 2000



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/4/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 060-6702
SHEET 24 OF 24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8874	20-00109-01-BR	MADISON	37	37
				CONTRACT NO. 97846
				ILLINOIS FED. AID PROJECT