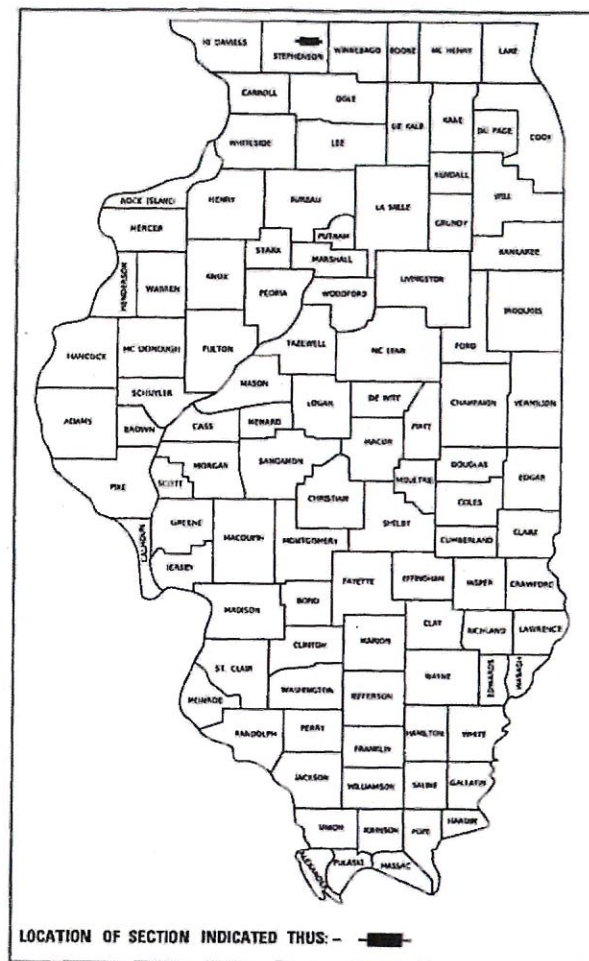


INDEX OF SHEETS 04-28-2023 LETTING ITEM 131

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES, TYPICAL SECTIONS, PAVEMENT DESIGN INFORMATION, DETAILS
3	SUMMARY OF QUANTITIES
4	SCHEDULES OF QUANTITIES
5	TRAFFIC CONTROL PLAN
6	EROSION CONTROL PLAN
7	PLAN AND PROFILE
8-15	STRUCTURE PLANS
16-20	CROSS SECTIONS

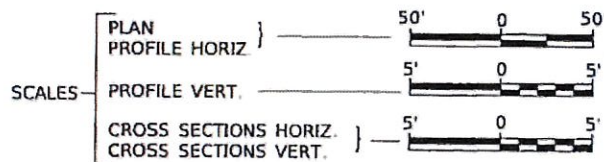
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**PLANS FOR PROPOSED**  
**SURFACE TRANSPORTATION PROGRAM-BRIDGE**  
**STEPHENSON COUNTY**  
**SECTION 21-00191-00-BR**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**  
**PROJECT NO. ZGTR(549)**  
**JOB NUMBER C-92-052-22**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	1
FED. ROAD DIST. NO. 7		ILLINOIS	CONTRACT NO. 85742	

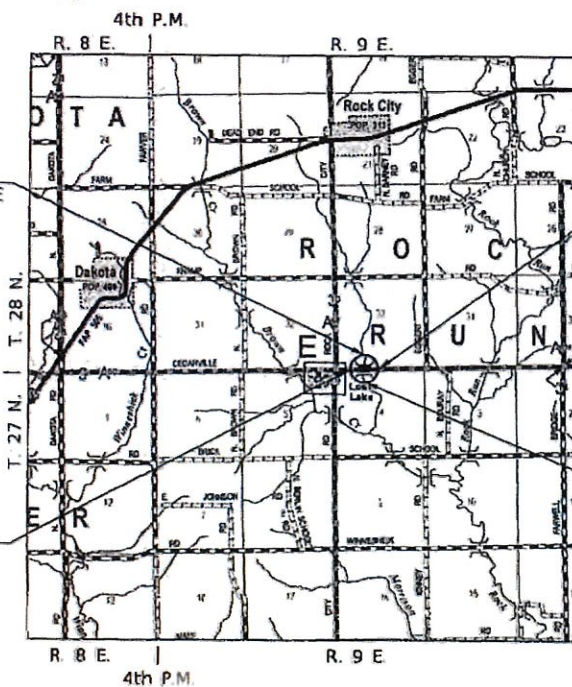


**HIGHWAY STANDARDS (INCLUDED IN PROPOSAL)**

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-04 NAME PLATE FOR BRIDGES
- 630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631032-10 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 26-3 STEEL PLATE BEAM GUARDRAIL 29" (731mm) HEIGHT



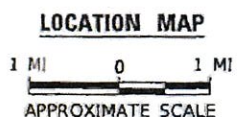
PROPOSED STRUCTURE SN 089-3298  
 SINGLE SPAN 27" PPC DK BM SUPERSTRUCTURE  
 ON CONCRETE SPILL-THRU ABUTMENTS,  
 57'-0" BK TO BK, 28'-0" O TO O DECK,  
 AND NO SKEW.



SECTION 21-00191-00-BR  
 ENDS  
 STATION 22+00.00

EXISTING STRUCTURE SN 089-5006  
 DOUBLE BARREL 12"x8' REINFORCED CONCRETE  
 BOX CULVERT, APPROXIMATELY 45'-0" LONG.  
 NO SKEW. (TO BE REMOVED)

SECTION 21-00191-00-BR  
 BEGINS  
 STATION 17+25.00



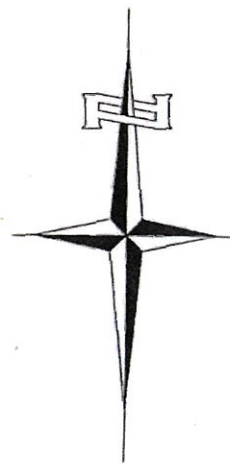
NET LENGTH OF PROJECT = 475.00 FEET = 0.090 MILES  
 DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)  
 DESIGN ADT = 900 (2043)  
 DESIGN SPEED = 40 MPH

**UTILITY COMPANIES**

- COMED  
JOLIET, ILLINOIS
- FRONTIER COMMUNICATIONS  
FREEPORT, ILLINOIS

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

**CONTRACT NO. 85742**



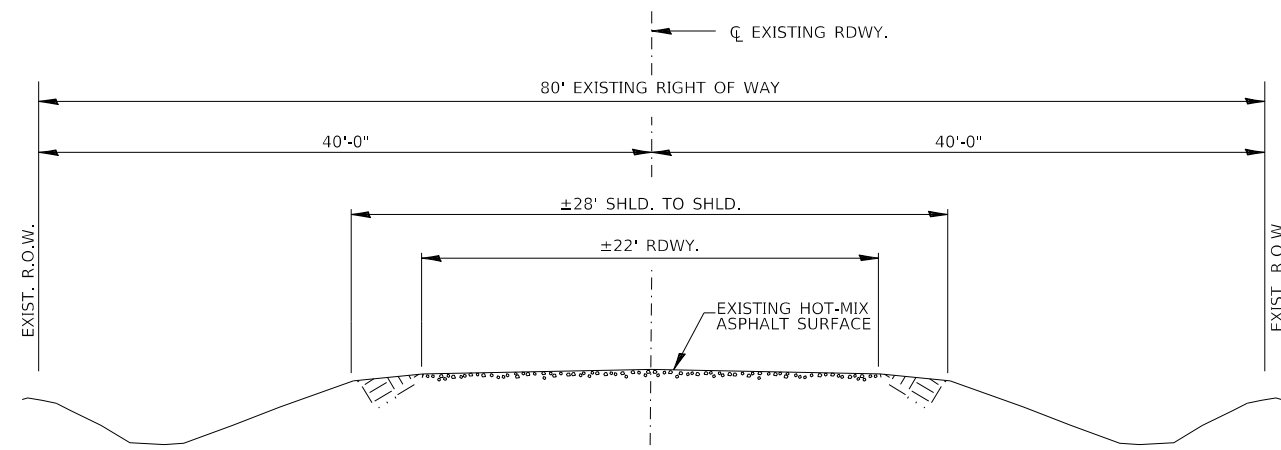
APPROVED *[Signature]* 2023  
 STEPHENSON COUNTY ENGINEER

PASSED *[Signature]* 3/1/23 2023  
 DISTRICT TWO ENGINEER OF  
 LOCAL ROADS & STREETS

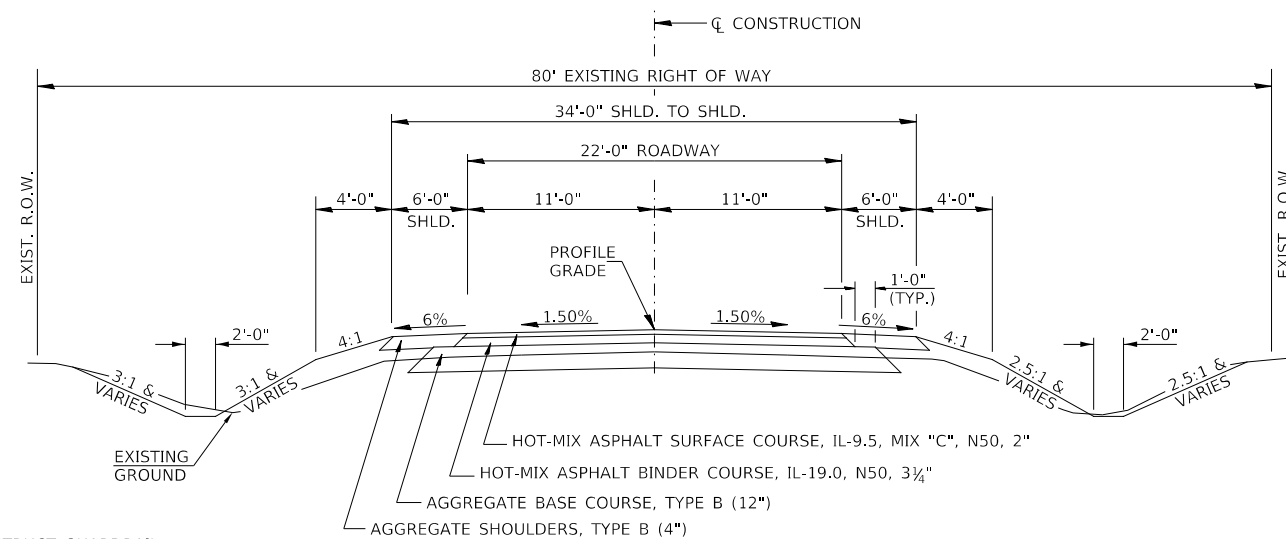
Released For  
 Bid Based on  
 Limited Review *[Signature]* 3/1/23 2023  
 REGION TWO ENGINEER  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DATE: 2/24/2023  
  
*[Signature]*  
 SIGNATURE  
 ENGINEERS SEAL

Hutchison Engineering, Inc.  
 JACKSONVILLE-SHOREWOOD  
 PEORIA-QUAD CITIES-CARBONDALE  
 2023 JOB#4882



**EXISTING TYPICAL SECTION**



**PROPOSED TYPICAL SECTION**

STA. 17+25.00 TO STA. 19+71.50  
 STA. 20+28.50 TO STA. 22+00.00

EXCEPT TRANSITIONS

BRIDGE OMISSION  
 STA. 19+71.50 TO STA. 20+28.50

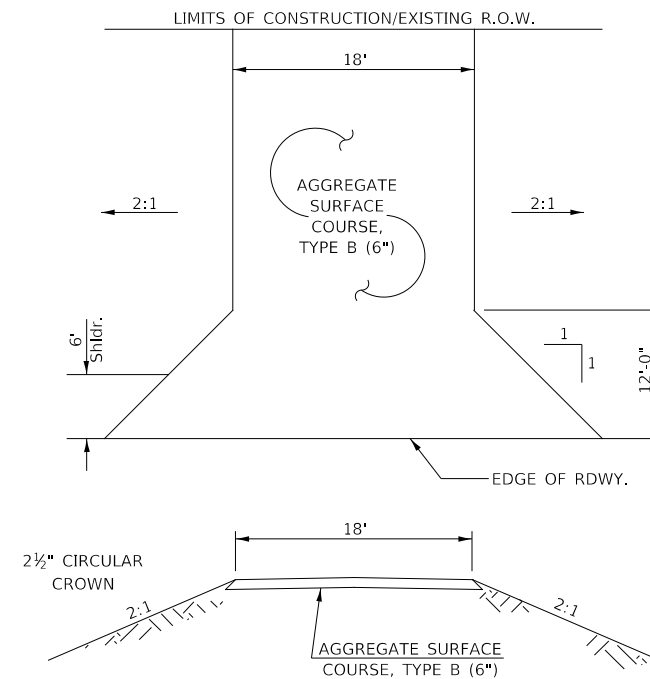
**STRUCTURAL DESIGN INFORMATION  
 COUNTY HIGHWAY 5**

ROAD CLASSIFICATION: CLASS III 80,000 lb./20 YEAR DESIGN  
 STRUCTURAL DESIGN TRAFFIC:  
 PV = 792 SU = 63 MU = 45  
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:  
 P = 88% S = 7% M = 5%  
 MINIMUM SUBGRADE SUPPORT RATING: FAIR  
 FLEXIBLE PAVEMENT DESIGN: MINIMUM TF = 0.243  
 ASPHALT PAVEMENT THICKNESS: 5 1/4"  
 AGGREGATE BASE COURSE, TYPE B: 12"

CONSTRUCT GUARDRAIL  
 SHOULDER WIDENING IN  
 ACCORDANCE WITH STD 630301

**COMMITMENTS**

THERE ARE NO COMMITMENTS FOR THIS PROJECT.



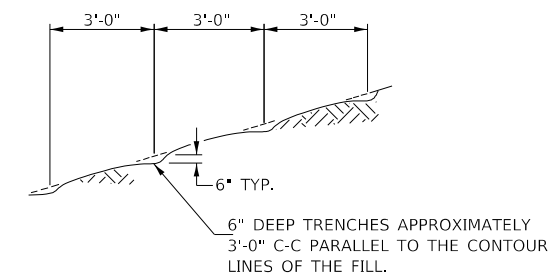
**FIELD ENTRANCE**

STA 18+44 LT

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

	HMA BINDER	HMA SURFACE
PG GRADE:	PG 64-22	PG 58-28
DESIGN AIR VOIDS:	4% @ N50	4% @ N50
MIXTURE COMPOSITION:	IL-19.0	IL-9.5
FRICTION AGGREGATE:		MIXTURE C
DENSITY TEST METHOD:	NUCLEAR DENSITY GAUGE	NUCLEAR DENSITY GAUGE
MIXTURE WEIGHT:	112#/SQ YD/IN	112#/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	LR1030-2	LR1030-2
SUBLOT SIZE:	N/A	N/A
LOCATION(S):	ENTIRE PROJECT	ENTIRE PROJECT

If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer.



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

**DETAIL OF CONTOUR PLOWING**

**GENERAL NOTES**

1. THE REMOVAL OF EXISTING HOT-MIX ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.
2. ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.
3. ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.
4. THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.
5. ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
7. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.
8. THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
9. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
10. ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

MODEL: 1409161.MXD  
 FILE NAME: 011802 - C1.5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\882-1001.dgn

USER NAME = MOgden	DESIGNED - YP/MMO	REVISED -
PLOT SCALE = 2,000.0' / in.	CHECKED - NMO/TJW	REVISED -
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED -

**STEPHENSON COUNTY  
 F.A.S. 60 (COUNTY HIGHWAY 5)  
 OVER BRANCH OF BROWN CREEK**

**GENERAL NOTES, TYPICAL SECTIONS,  
 PAVEMENT DESIGN INFORMATION, DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+25.00 TO STA. 22+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	2
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 85742	
FED. AID PROJECT NO. 2GTR(549)				

SUMMARY OF QUANTITIES				
	CODE NO.	ITEM	UNIT	QUANTITY
	20200100	EARTH EXCAVATION	CU YD	690
	20300100	CHANNEL EXCAVATION	CU YD	340
SP	20700220	POROUS GRANULAR EMBANKMENT	CU YD	31.8
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	400
	28000305	TEMPORARY DITCH CHECKS	FOOT	168
	28000400	PERIMETER EROSION BARRIER	FOOT	655
	28000500	INLET AND PIPE PROTECTION	EACH	1
	28100209	STONE RIPRAP, CLASS A5	TON	390
	28200200	FILTER FABRIC	SQ YD	485
	28300400	AGGREGATE DITCH	TON	98
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	757
	40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	23
BDE	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,601
BDE	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	234
BDE	40600370	LONGITUDINAL JOINT SEALANT	FOOT	418
BDE	40603080	HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N50	TON	192
BDE	40604050	HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "C", N50	TON	135
	48101200	AGGREGATE SHOULDERS, TYPE B	TON	130
SP	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50105220	PIPE CULVERT REMOVAL	FOOT	26
	50200100	STRUCTURE EXCAVATION	CU YD	110
	50300225	CONCRETE STRUCTURES	CU YD	24.2
	50300280	CONCRETE ENCASMENT	CU YD	3.6
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,545
	50800105	REINFORCEMENT BARS	POUND	2,680
*	50901050	STEEL RAILING, TYPE SM	FOOT	114
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	484
	51202305	DRIVING PILES	FOOT	484
	51203400	TEST PILE STEEL HP10x42	EACH	2
	51204650	PILE SHOES	EACH	10
	51500100	NAME PLATES	EACH	1
SP	54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	40
BDE	58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	177
	58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	100
*	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
	67100100	MOBILIZATION	L SUM	1
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
SP/BDE	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
SP	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
CS	Z0013798	CONSTRUCTION LAYOUT	L SUM	1

SP: SEE SPECIAL PROVISIONS  
 BDE: SEE BUREAU OF DESIGN AND ENVIRONMENT CHECK SHEET  
 CS: SEE CHECK SHEET FOR RECURRING SPECIAL PROVISIONS  
 CONSTRUCTION CODE TYPE: 0010

\* SPECIALTY ITEMS

MODEL: \\MODEL\NAME  
 FILE NAME: V:\1802 - C1.5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\1802-C001.dgn

USER NAME = MOgden	DESIGNED - YP	REVISED - _____
	DRAWN - YP	REVISED - _____
PLOT SCALE = 100.0000' / in.	CHECKED - MMO/TJW	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

**SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. 17+25.00 TO STA. 22+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	3
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 85742	
FED. AID PROJECT NO. ZGTR(549)				

EARTHWORK SUMMARY					
STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD				
RDWY 17+25.00 - 19+71.50	445			190	144
RDWY 20+28.50 - 22+00.00	245			295	(111)
CHANNEL		340			
STRUCTURE			110		
TOTAL	690	340	110	485	33
USE	690	340	110	-	35

(@ 25% SHRINKAGE)

AGGREGATE SURFACE COURSE, TYPE B 140#/CF			
STATION	WIDTH	LENGTH	TON
ENTR. - 18+44.00 LT	18' & VAR.	29.00'	23
TOTAL			23

PIPE CULVERT REMOVAL			
Q STATION	SIZE	SIDE	FOOT
18+44	15"	LEFT	26
TOTAL			26

TEMPORARY DITCH CHECKS		
STATION	SIDE	FOOT
17+70	LEFT	12
17+90	LEFT	12
18+10	LEFT	12
18+70	LEFT	12
18+92	LEFT	12
19+14	LEFT	12
19+36	LEFT	12
19+58	LEFT	12
19+80	LEFT	12
21+25	RIGHT	12
21+40	RIGHT	12
21+55	RIGHT	12
21+70	RIGHT	12
21+85	RIGHT	12
TOTAL		168

PERIMETER EROSION BARRIER			
STATION TO STATION	SIDE	FOOT	
17+25	17+50	LEFT	30
17+25	19+72	RIGHT	270
18+26	18+66	LEFT	45
20+29	22+00	LEFT	200
20+29	21+25	RIGHT	110
TOTAL			655

PAVEMENT SCHEDULE									
STATION TO STATION		WIDTH	LENGTH	AGGREGATE BASE CSE, TYPE B 140#/CF	BITUMINOUS MATERIALS (PRIME COAT) 0.25LBS/SQ FT	HOT-MIX ASPHALT BINDER CSE 112#/SQ YD/IN	BITUMINOUS MATERIALS (TACK COAT) 0.025LBS/SQ FT	HOT-MIX ASPHALT SURFACE CSE 112#/SQ YD/IN	LONGITUDINAL JOINT SEALANT
				TON	POUND	TON	POUND	TON	FOOT
17+25.00	17+75.00	25.80' AVG.	50.00'	90					
17+75.00	19+71.50	25.88'	196.50'	356					
20+28.50	21+50.00	25.88'	121.50'	220					
21+50.00	22+00.00	26.04' AVG.	50.00'	91					
17+25.00	17+75.00	24.80' AVG.	50.00'		310				
17+75.00	19+71.50	24.88'	196.50'		1,222				
20+28.50	21+50.00	24.88'	121.50'		756				
21+50.00	22+00.00	25.04' AVG.	50.00'		313				
17+25.00	17+75.00	22.52' AVG.	50.00'			23			
17+75.00	19+71.50	22.60'	196.50'			90			
20+28.50	21+50.00	22.60'	121.50'			56			
21+50.00	22+00.00	22.76' AVG.	50.00'			23			
17+25.00	17+75.00	22.25' AVG.	50.00'				28		
17+75.00	19+71.50	22.33'	196.50'				110		
20+28.50	21+50.00	22.33'	121.50'				68		
21+50.00	22+00.00	22.49' AVG.	50.00'				28		
17+25.00	17+75.00	22.09' AVG.	50.00'					14	50.0
17+75.00	19+71.50	22.17'	196.50'					54	196.5
BRIDGE DECK				28.00'	57.00'			19	
20+28.50	21+50.00	22.17'	121.50'					34	121.5
21+50.00	22+00.00	22.33' AVG.	50.00'					14	50.0
TOTAL				757	2,601	192	234	135	418

AGGREGATE SHOULDERS, TYPE B 140#/CF					
STATION TO STATION	SIDE	WIDTH	LENGTH	TON	
17+25.00	17+75.00	LT	4.73' AVG.	50.00'	6
17+25.00	17+75.00	RT	4.36' AVG.	50.00'	5
17+75.00	18+26.00	LT	6.00'	51.00'	7
17+75.00	18+50.00	RT	6.00'	75.00'	11
18+61.36	18+74.00	LT	9.04' AVG.	12.64'	3
18+50.00	18+74.00	RT	8.00' AVG.	24.00'	4
18+74.00	19+09.00	LT	10.00'	35.00'	8
18+74.00	19+09.00	RT	10.00'	35.00'	8
19+09.00	19+43.00	LT	9.38' AVG.	34.00'	7
19+09.00	19+43.00	RT	9.38' AVG.	34.00'	7
19+43.00	19+71.50	LT	6.38' AVG.	28.50'	4
19+43.00	19+71.50	RT	6.38' AVG.	28.50'	4
20+28.50	20+57.00	LT	6.38' AVG.	28.50'	4
20+28.50	20+57.00	RT	6.38' AVG.	28.50'	4
20+57.00	20+91.00	LT	9.38' AVG.	34.00'	7
20+57.00	20+91.00	RT	9.38' AVG.	34.00'	7
20+91.00	21+26.00	LT	10.00'	35.00'	8
20+91.00	21+26.00	RT	10.00'	35.00'	8
21+26.00	21+50.00	LT	8.00'	24.00'	4
21+26.00	21+50.00	RT	8.00'	24.00'	4
21+50.00	22+00.00	LT	4.30' AVG.	50.00'	5
21+50.00	22+00.00	RT	4.35' AVG.	50.00'	5
TOTAL					130

AGGREGATE DITCH**					
STATION TO STATION	SIDE	WIDTH	TON	FILTER FABRIC (SQ YD)	
17+50	18+26	LEFT	6'	27	50
18+66	19+80	LEFT	6'	41	75
21+15	22+00	RIGHT	6'	30	55
TOTAL			98	180	

\*\*AGGREGATE DITCH SHALL CONFORM TO MATERIAL TYPE B-3 OF THE STANDARD SPECIFICATIONS

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT			
STATION TO STATION	SIDE	EACH	
18+84.00	19+34.00	LT	1
18+84.00	19+34.00	RT	1
20+66.00	21+16.00	LT	1
20+66.00	21+16.00	RT	1
TOTAL			4

TRAFFIC BARRIER TERMINAL, TYPE 6A			
STATION TO STATION	SIDE	EACH	
19+34.00	19+71.50	LT	1
19+34.00	19+71.50	RT	1
20+28.50	20+66.00	LT	1
20+28.50	20+66.00	RT	1
TOTAL			4

PIPE CULVERTS, CLASS D, TYPE 1 15"		
STATION	SIDE	FOOT
18+46	LEFT	40
TOTAL		40

INLET AND PIPE PROTECTION		
STATION	SIDE	EACH
18+26	LEFT	1
TOTAL		1

MODEL: ST00BELNAME; FILE NAME: V:\1802 - C1.5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\1802-002.dgn

USER NAME = MOgden	DESIGNED - YP	REVISED - _____
	DRAWN - YP	REVISED - _____
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PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

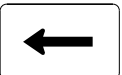




**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

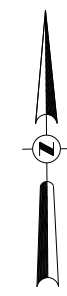
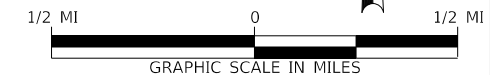
**SCHEDULES OF QUANTITIES**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. 17+25.00 TO STA. 22+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	4
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 85742	
FED. AID PROJECT NO. ZGTR(549)				

R 8 E | R 9 E, 4th PM

- 1 ROAD CLOSED ¼ MILE AHEAD LOCAL TRAFFIC ONLY R11-3      ROAD CLOSED ¼ MILE AHEAD LOCAL TRAFFIC ONLY
- 2 ROAD CLOSED ¾ MILE AHEAD LOCAL TRAFFIC ONLY R11-3      ROAD CLOSED ¾ MILE AHEAD LOCAL TRAFFIC ONLY
- 3 ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY R11-3      ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY
- 4 ROAD CLOSED 1 ¼ MILE AHEAD LOCAL TRAFFIC ONLY R11-3      ROAD CLOSED 1 ¼ MILE AHEAD LOCAL TRAFFIC ONLY
- 5 ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY R11-3      ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY
- 6  DIRECTIONAL ARROW  
M6-1(L)  
(BLACK ON FLUORESCENT ORANGE)
- 7  DIRECTIONAL ARROW  
M6-1(R)  
(BLACK ON FLUORESCENT ORANGE)
- 8  ROAD CLOSED AHEAD W20-3      ROAD CLOSED AHEAD
- 9  ROAD CLOSED 500 FT W20-3      ROAD CLOSED 500 FT
- 10  TYPE III BARRICADES  
SEE STANDARD BLR 21 AND SPECIAL PROVISIONS



MODEL: \\MOBILE\NAME\FILE: \\MOBILE\85742 - C1.5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\882-1001.dgn

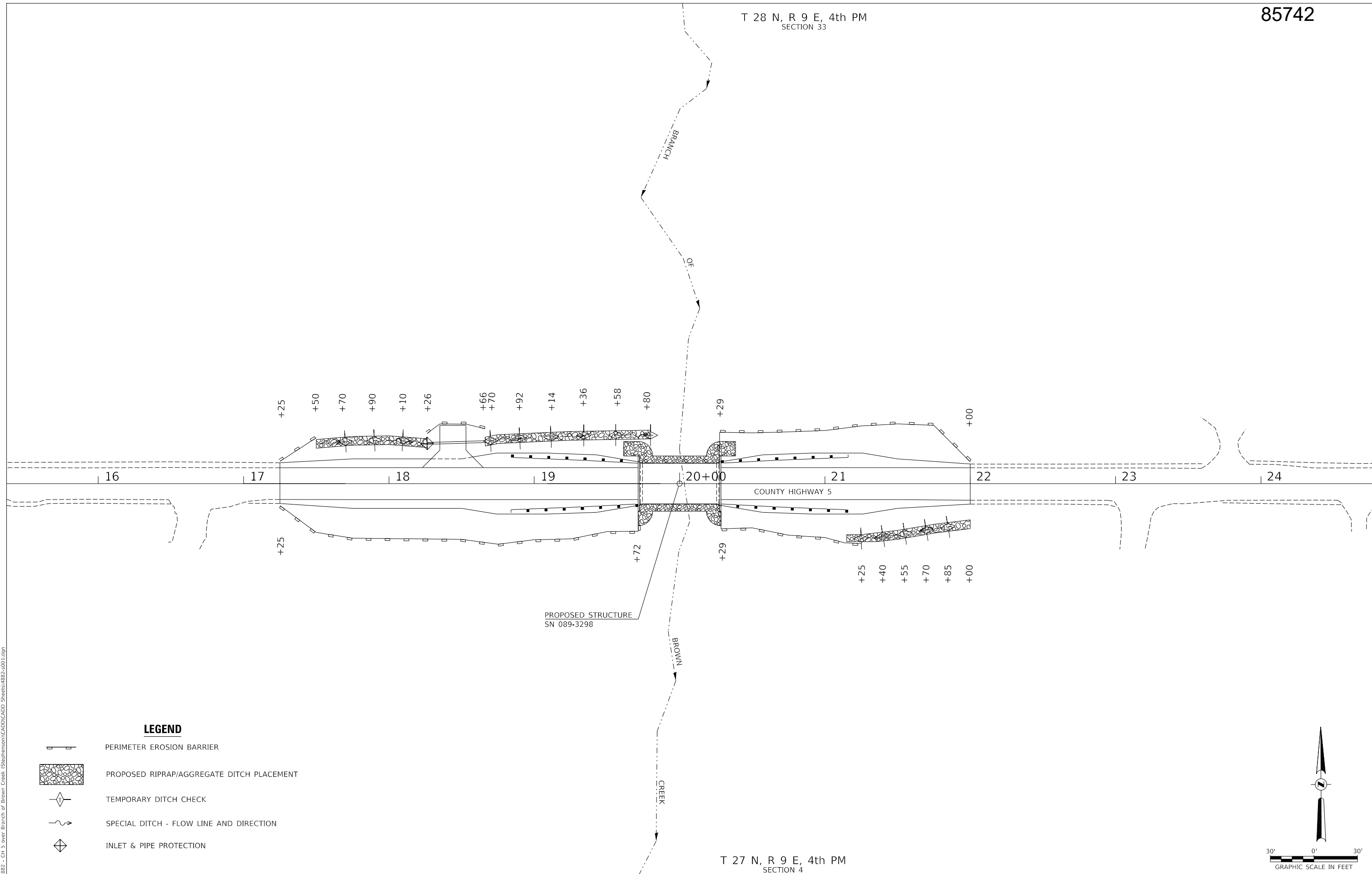
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DRAWN - YP	REVISIONS -	
PLOT SCALE = 2,000' / in.	CHECKED - MMO/TJW	REVISED -
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED -

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

**TRAFFIC CONTROL PLAN**






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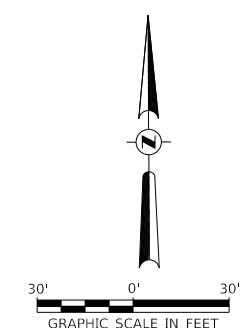
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	5
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT NO. ZGTR(549)	



PROPOSED STRUCTURE  
SN 089-3298

**LEGEND**

-  PERIMETER EROSION BARRIER
-  PROPOSED RIPRAP/AGGREGATE DITCH PLACEMENT
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  INLET & PIPE PROTECTION



MODEL: \\H01\BEN\M\MS\FILE NAME: V:\1802 - C1 5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\882-001.dgn

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	DRAWN - YP	REVISED - _____
PLOT SCALE = 60.0000' / in.	CHECKED - MMO/TJW	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

**EROSION CONTROL PLAN**

SCALE: 1"=30'      SHEET 1 OF 1 SHEETS      STA. 17+25.00 TO STA. 22+00.00

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	6
FED. ROAD DIST. NO. 7      ILLINOIS			FED. AID PROJECT NO. 2GTR(549)	

- ① EXISTING GUARDRAIL TO BE REMOVED BY OTHERS
- ② PROPOSED PIPE CULVERT CLASS D, TYPE 1, 15" x 40' USFL = 794.54, STA 18+26.33, 27.6' LT DSFL = 792.34, STA 18+66.31, 28.8' LT
- ③ PROPOSED TRAFFIC BARRIER TERMINALS, TYPE 6A AND TYPE 1 (SPECIAL) TANGENT

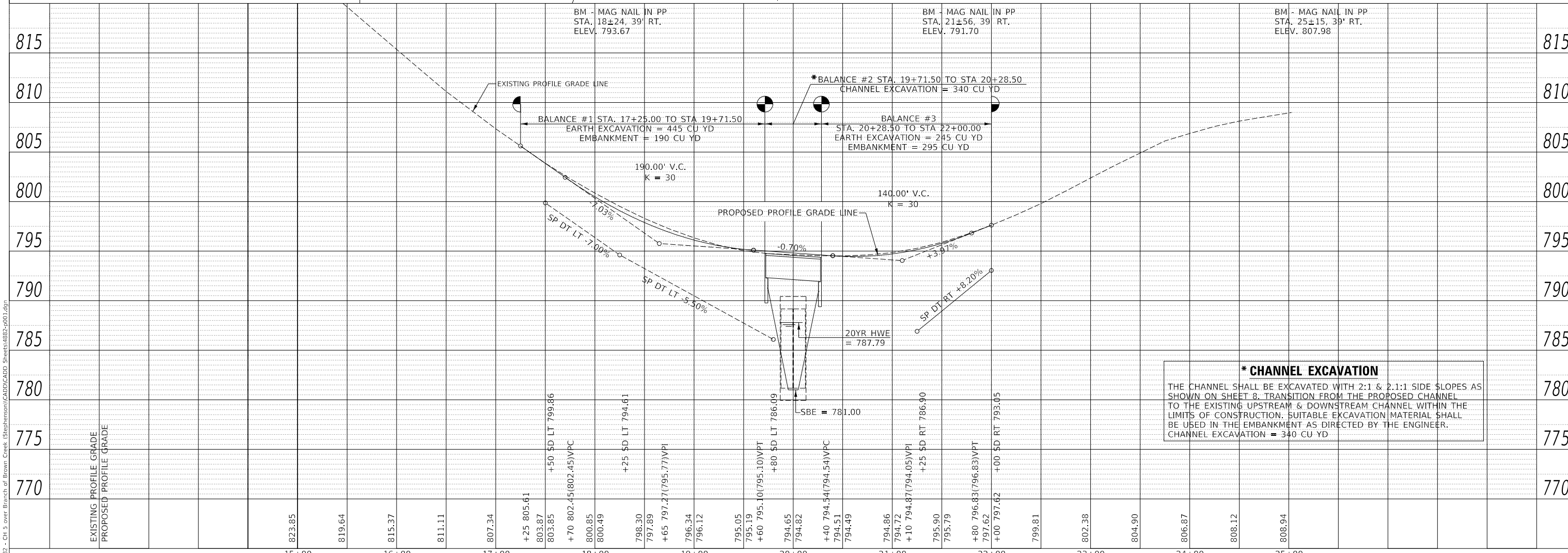
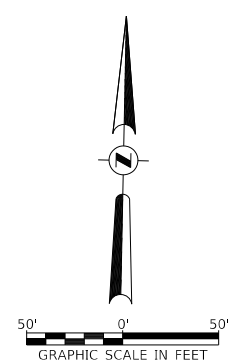
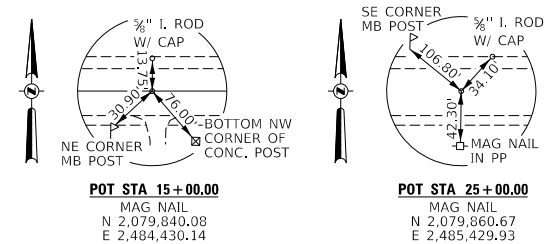
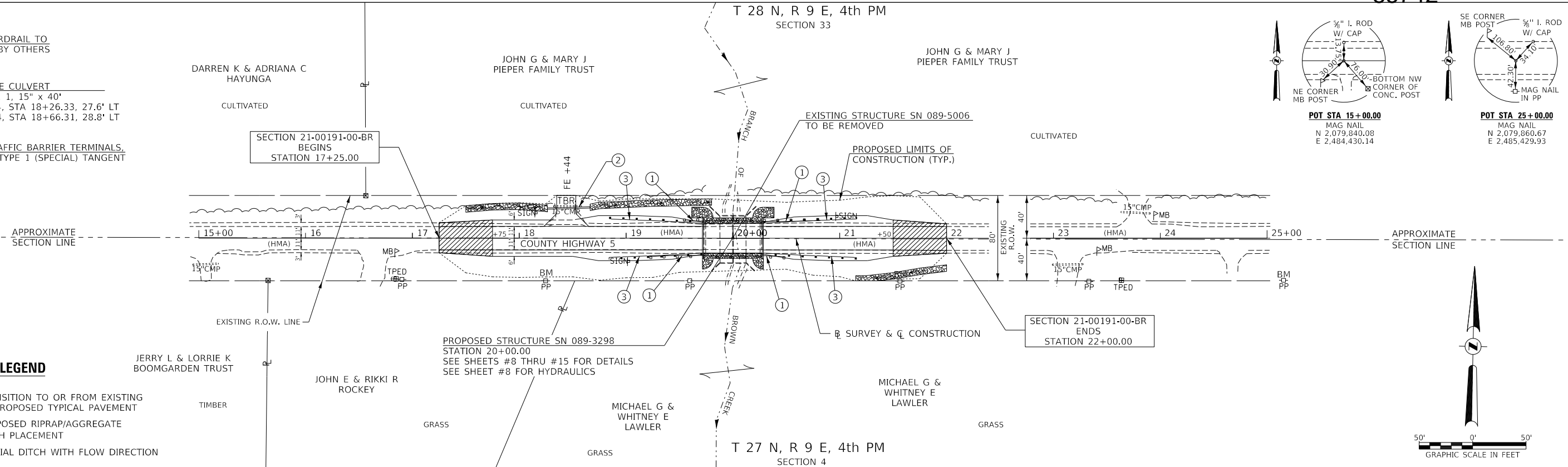
DATE	
BY	
SURVEYED	
PLANNED	
NOTE BOOK NO.	
ALIGNED CHECKED	
FILE NAME	

DATE	
BY	
SURVEYED	
PLANNED	
NOTE BOOK NO.	
GRADES CHECKED	
FILE NAME	

MODEL: SPODELNAME1  
FILE NAME: V:\8827 - Ch 5 over Branch of Brown Creek (Stephenson)\CADD\CADD\_Sheets\8827-001.dwg

**LEGEND**

- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
- PROPOSED RIPRAP/AGGREGATE
- DITCH PLACEMENT
- SPECIAL DITCH WITH FLOW DIRECTION



**\* CHANNEL EXCAVATION**  
THE CHANNEL SHALL BE EXCAVATED WITH 2:1 & 2.1:1 SIDE SLOPES AS SHOWN ON SHEET 8. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL SHALL BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER. CHANNEL EXCAVATION = 340 CU YD

USER NAME = MOgden	DESIGNED - YP	REVISED -	F.A.S. RTE. 60	SECTION 21-00191-00-BR	COUNTY STEPHENSON	TOTAL SHEETS 20	SHEET NO. 7
PLOT SCALE = 100.0000' / in.	CHECKED - NMO/TJW	REVISED -	PLAN AND PROFILE		CONTRACT NO. 85742		
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED -	SCALE: 1"=50'	SHEET 1 OF 1 SHEETS	STA. 17+25.00 TO STA. 22+00.00	FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT NO. ZGTR(549)

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

B.M.: Mag Nail in PP Sta. 18±24, 39' Rt. Elev. 793.67  
 B.M.: Mag Nail in PP Sta. 21±56, 39' Rt. Elev. 791.70  
 B.M.: Mag Nail in PP Sta. 25±15, 39' Rt. Elev. 807.98

BRANCH OF BROWN CREEK  
 BUILT 202 BY  
 STEPHENSON COUNTY  
 SEC. 21-00191-00-BR  
 C.H. 5 STATION 20+00.00  
 F.A PROJ. NO ZGTR(549)  
 STR. NO. 089-3298 LOADING HL-93

GENERAL NOTES

For Soil Boring Logs, See Special Provisions.  
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Articles 1020.05(b)(10) and 1021.07 of the Standard Specifications.  
 Reinforcement Bars designated (E) shall be epoxy coated.  
 Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

Existing Structure:  
 A double barrel 12'x8' reinforced concrete box culvert.  
 The structure is ~45'-0" in length and is not skewed.  
 Str. No. 089-5006

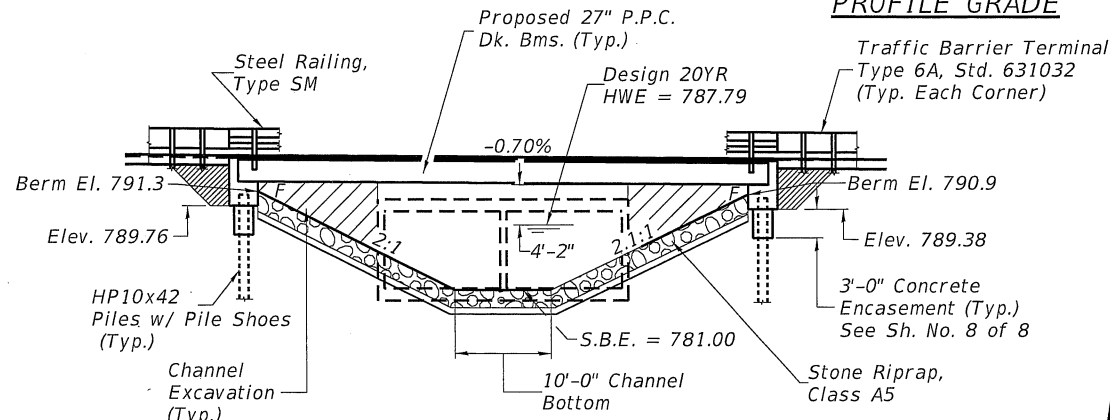
Salvage: None

Road to be closed to traffic during construction.

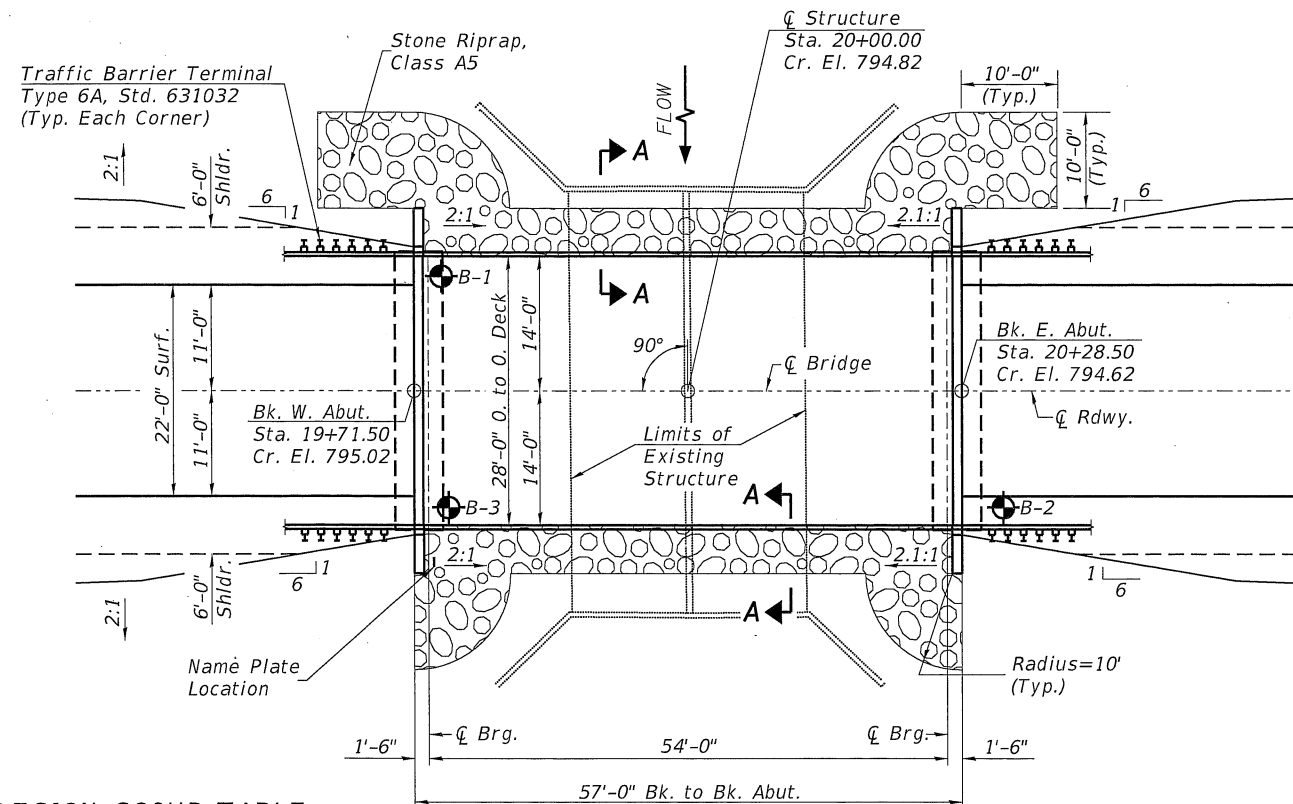
NAME PLATE

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

PROFILE GRADE



ELEVATION



PLAN

DESIGN SCOUR TABLE

Location	W. Abut.	E. Abut.
Design Scour Elevation	789.76	789.38

WATERWAY INFORMATION

Drainage Area = 2.94 Sq. Mi. Low Grade Elev. = 794.47 @ Sta. 20+61.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	960	132	162	787.79	0.92	0.58	788.71	788.37
Base	100	1,440	144	182	788.31	2.03	0.89	790.34	789.20

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

(FIELD UNITS) (PRECAST PRESTRESSED UNITS)  
 f'c = 3,500 p.s.i. f'c = 6,000 p.s.i.  
 fy = 60,000 p.s.i. (Rein.) f'ci = 5,000 p.s.i.  
 f's = 270,000 p.s.i. (1/2" Strands)  
 f'si = 201,960 p.s.i. (1/2" Strands)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

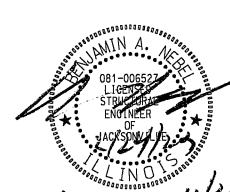
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD		340	340
① Porous Granular Embankment	CU YD		31.8	31.8
Stone Riprap, Class A5	TON		390	390
Filter Fabric	SQ YD		305	305
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	TON	19		19
① Removal of Existing Structures	EACH			1
Structure Excavation	CU YD		110	110
Concrete Structures	CU YD		24.2	24.2
Concrete Encasement	CU YD		3.6	3.6
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,545		1,545
Reinforcement Bars	POUND		2,680	2,680
Steel Railing, Type SM	FOOT	114		114
Furnishing Steel Plies HP10x42	FOOT		484	484
Driving Piles	FOOT		484	484
Test Pile Steel HP10x42	EACH		2	2
Name Plates	EACH		1	1
① Waterproofing Membrane System	SQ YD	177		177
Pile Shoes	EACH		10	10
Portland Cement Mortar Fairing Course	FOOT		100	100

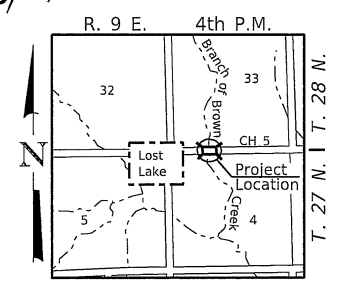
① See Special Provisions

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges.  
 This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

*[Signature]*  
 Illinois Structural No. 6527  
 Expires 11/30/2024



*[Signature]*  
 L.C.B.A. 4/30/24



LOCATION SKETCH

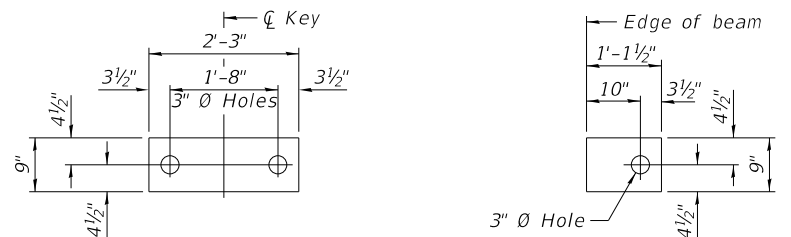
STEPHENSON COUNTY  
 F.A.S. 60 (COUNTY HIGHWAY 5)  
 OVER BRANCH OF BROWN CREEK

GENERAL PLAN & ELEVATION

SCALE: NONE SHEET 1 OF 8 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	8
SN 089-3298			CONTRACT NO. 85742	
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. ZGTR(549)	

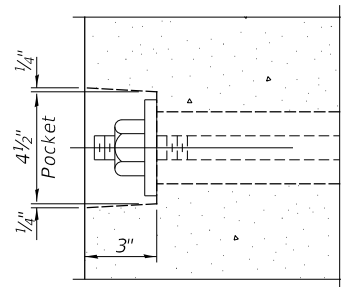




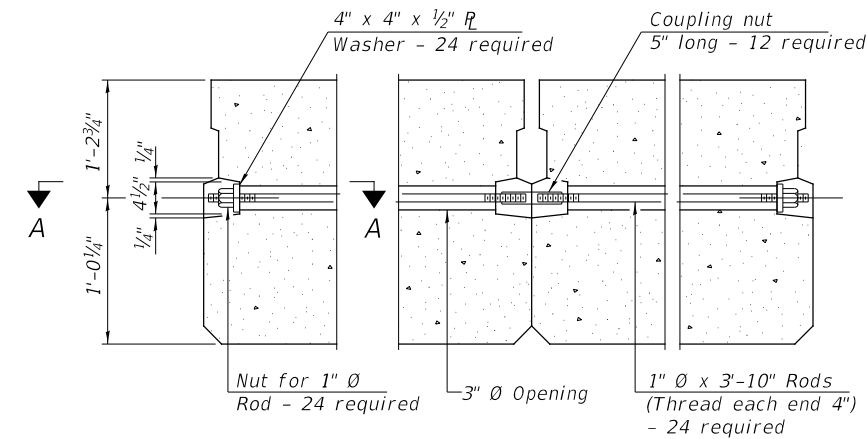
1/2" FABRIC BEARING PAD  
(Interior) 12 Required

1/2" FABRIC BEARING PAD  
(Exterior) 4 Required

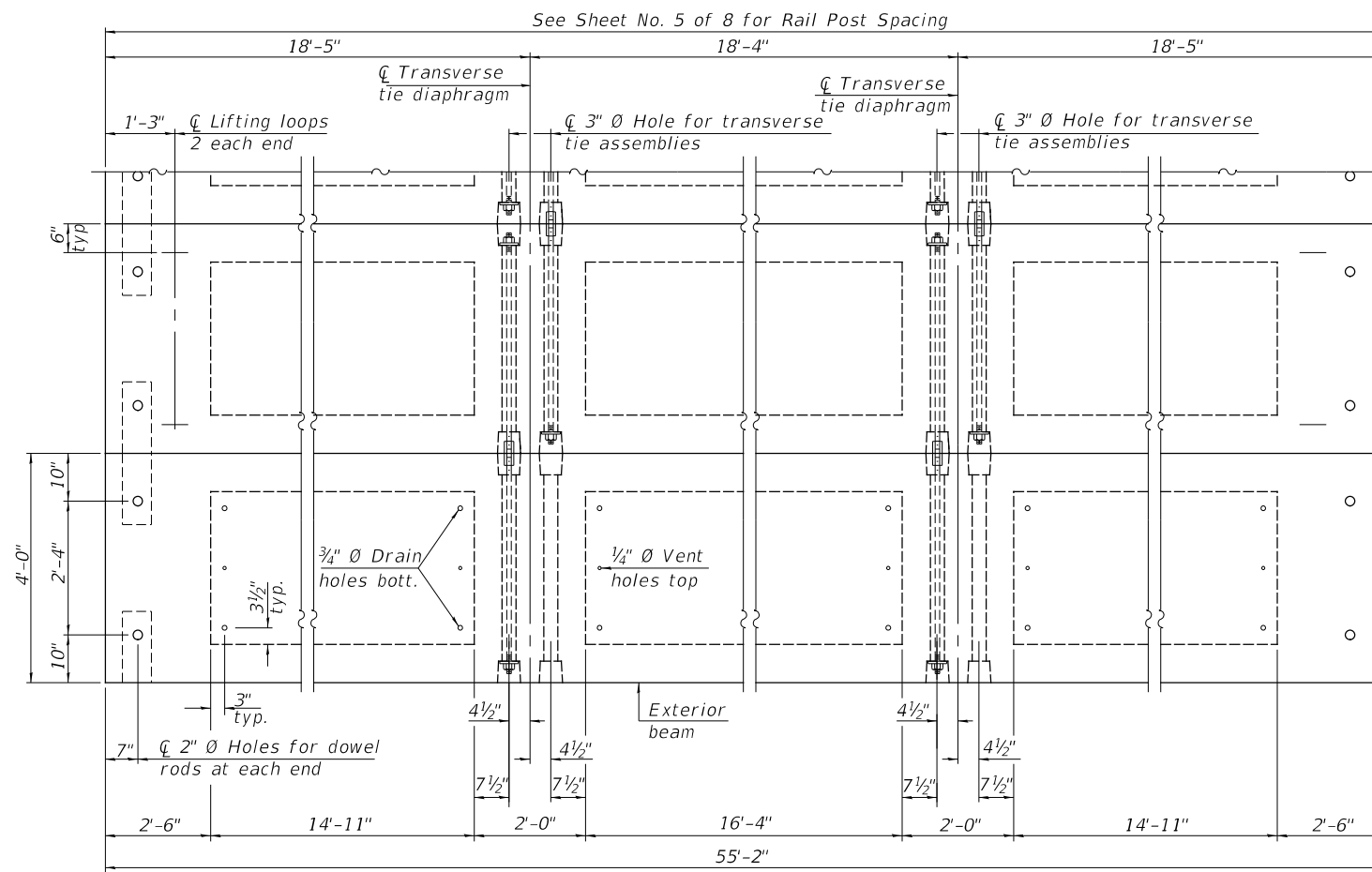
FIXED



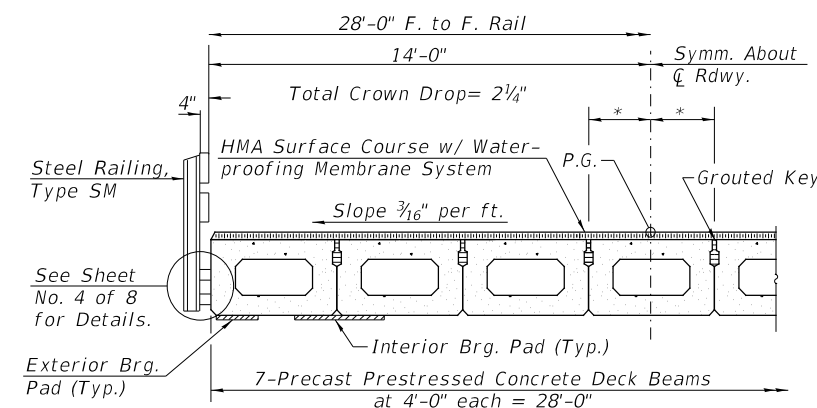
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



HALF CROSS SECTION

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.
- 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.

Note: Connect beams in pairs with the transverse tie configuration shown.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,545

4882-b001.dwg/24/2023 \$TIMES

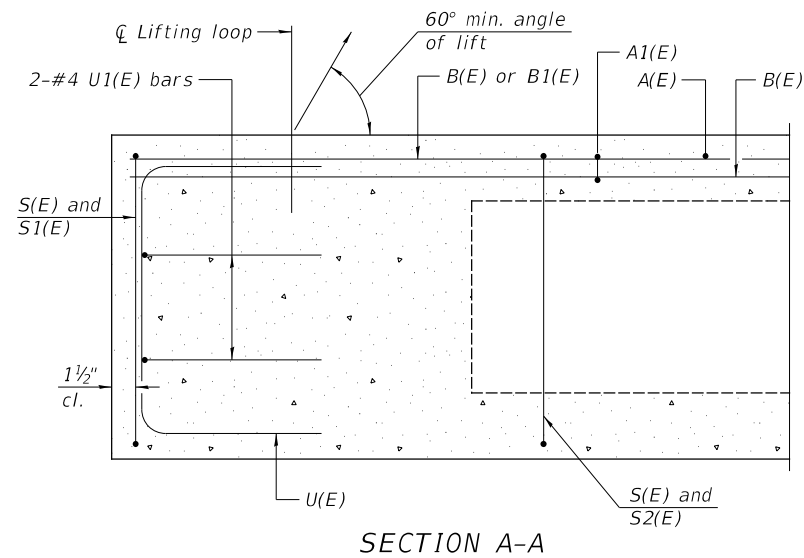
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PLOT DATE = 2/24/2023	CHECKED - MMO/BAN	REVISED - _____
	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

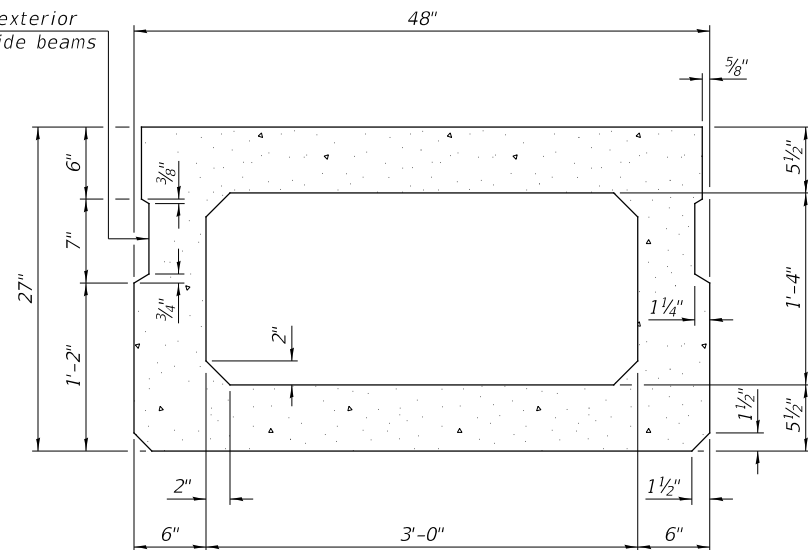
**SUPERSTRUCTURE**

SCALE: NONE SHEET 2 OF 8 SHEETS

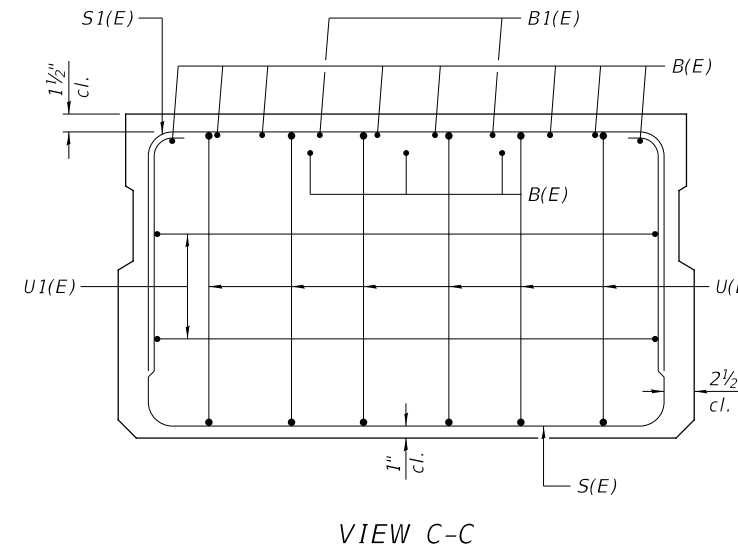
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60	21-00191-00-BR	STEPHENSON	20	9
SN 089-3298		CONTRACT NO. 85742		
FED. ROAD DIST. NO. 7		ILLINOIS		
		FED. AID PROJECT NO. ZGTR(549)		



SECTION A-A

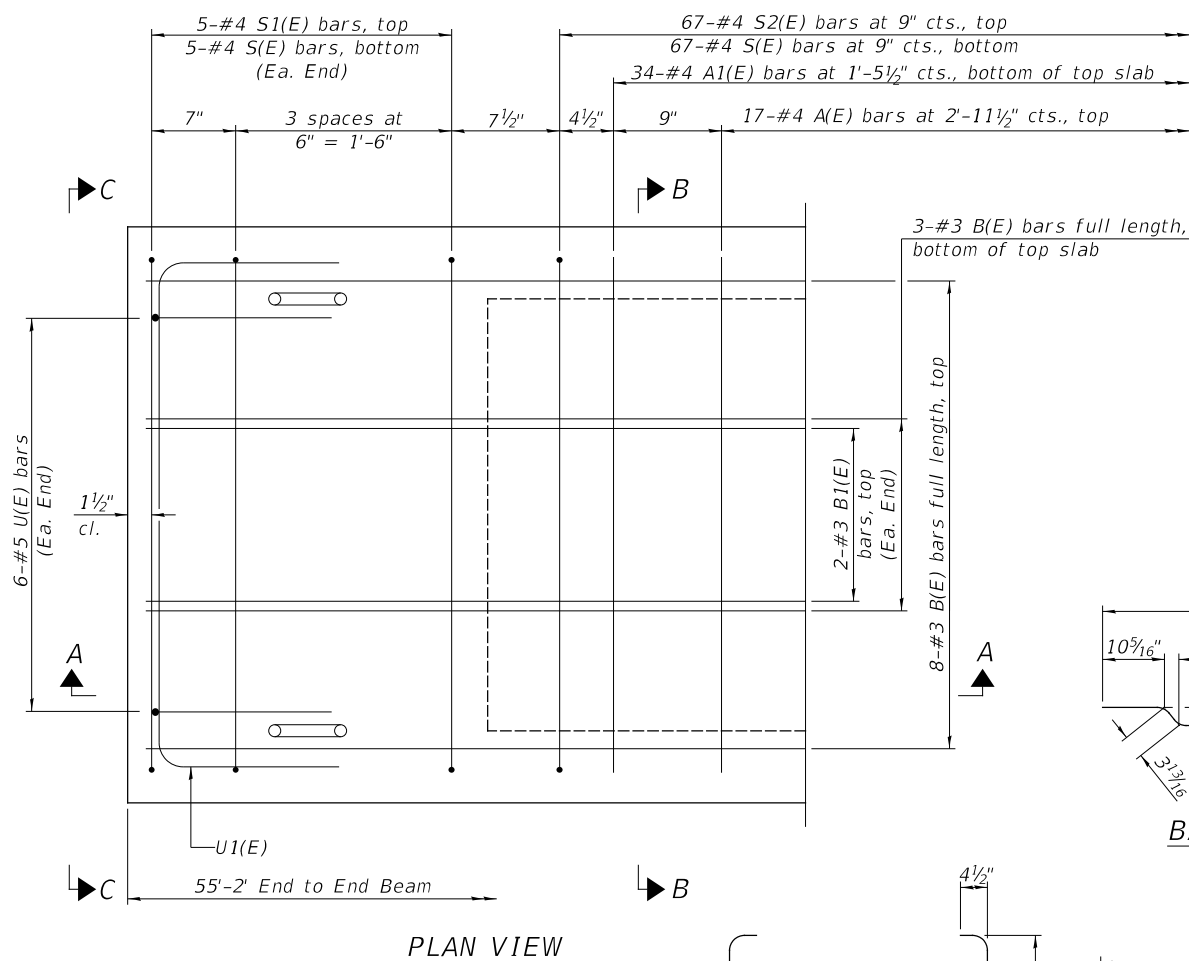


SECTION B-B  
(Showing dimensions)

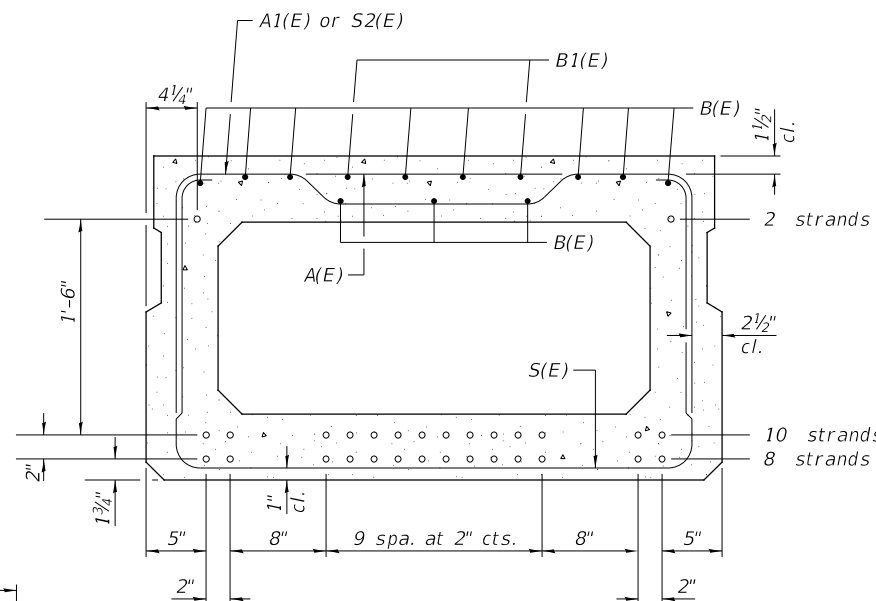


VIEW C-C

\*\*Rail post anchor devices (Sheet No. 4 of 8) to be cast into exterior face of outside beams.



PLAN VIEW



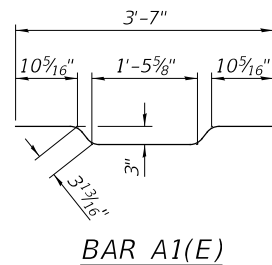
SECTION B-B  
(Showing reinforcement and permissible strand locations)

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

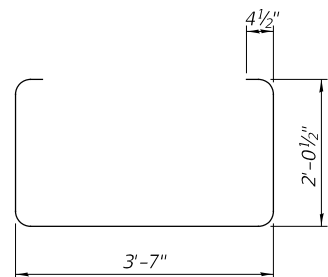
BAR	NO.	SIZE	LENGTH	SHAPE
A(E)	17	#4	3'-7"	—
A1(E)	34	#4	3'-10"	—
B(E)	11	#3	54'-11"	—
B1(E)	4	#3	10'-0"	—
S(E)	77	#4	8'-5"	□
S1(E)	10	#4	6'-11"	□
S2(E)	67	#4	7'-2"	□
U(E)	12	#5	4'-6"	□
U1(E)	4	#4	6'-0"	□

Note:  
See sheet 2 of 8 for additional details and Bill of Material.

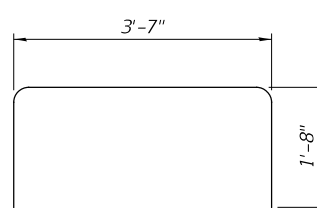
**MINIMUM BAR LAP**  
#3 bar = 1'-6"



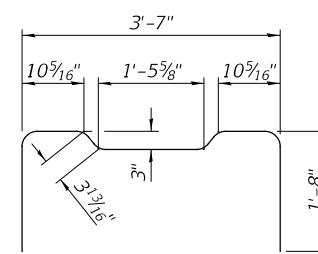
BAR A1(E)



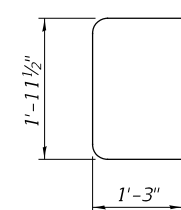
BAR S(E)



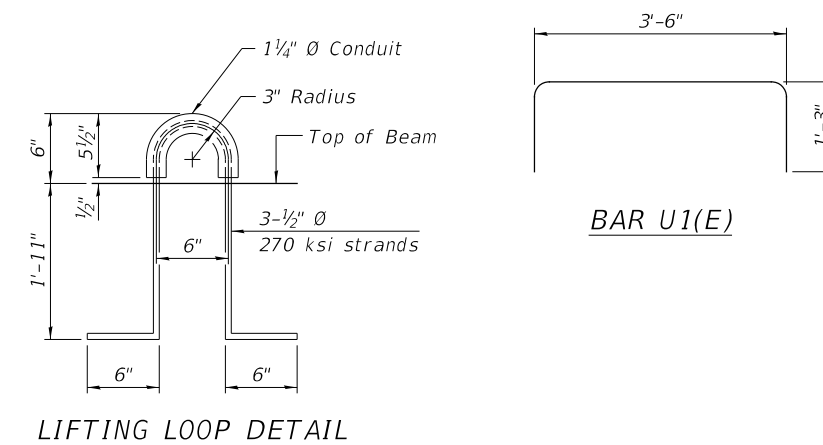
BAR S1(E)



BAR S2(E)



BAR U(E)



LIFTING LOOP DETAIL

Note:  
Spacing of S(E) and S2(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.

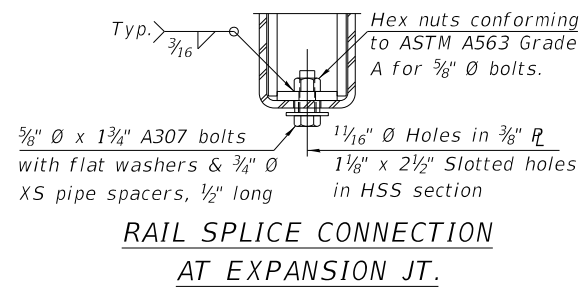
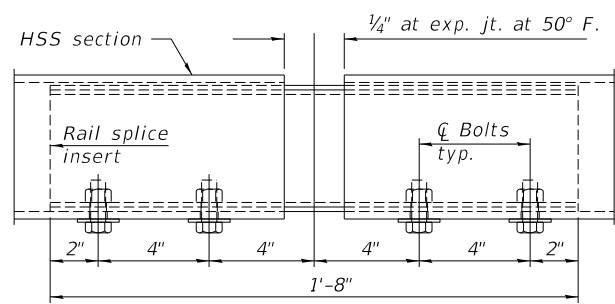
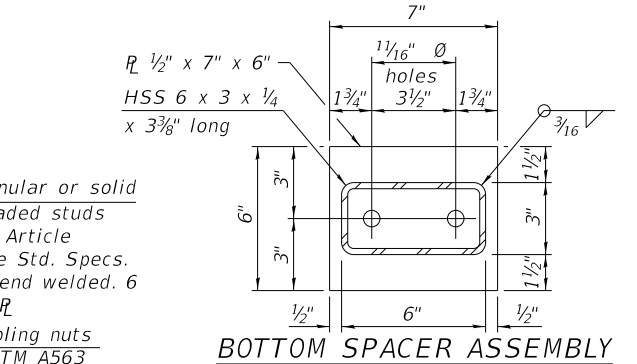
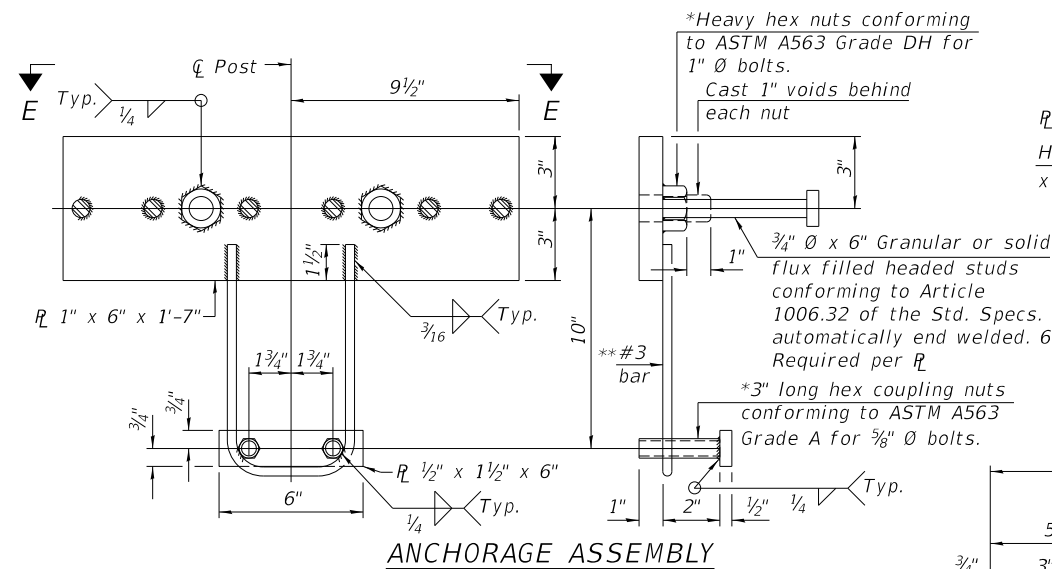
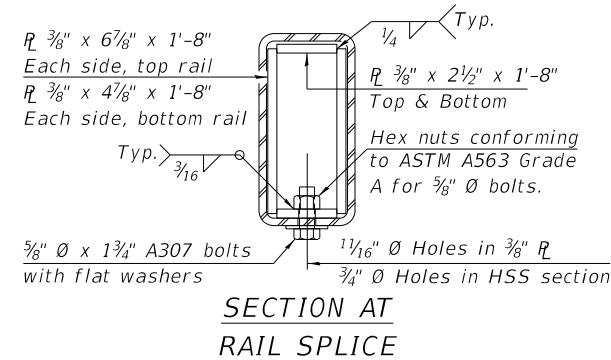
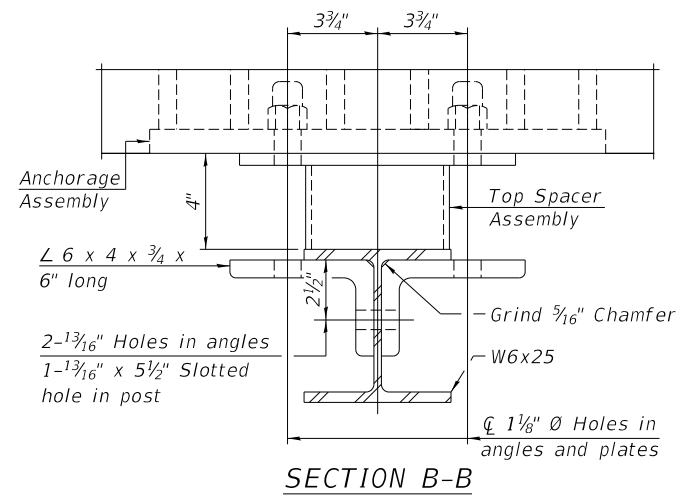
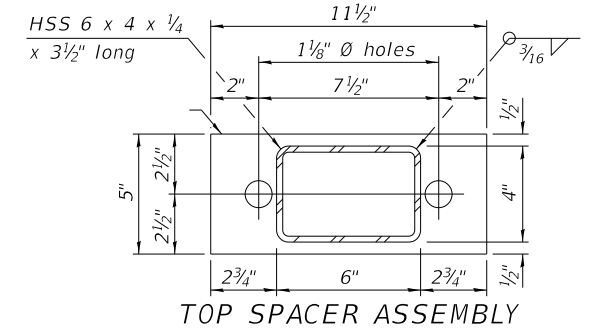
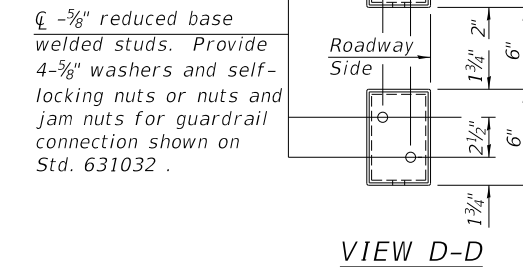
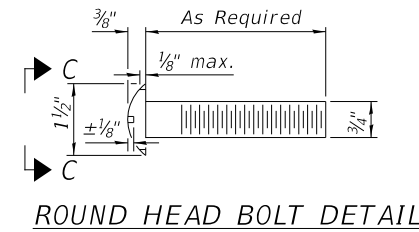
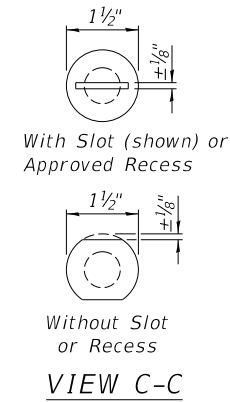
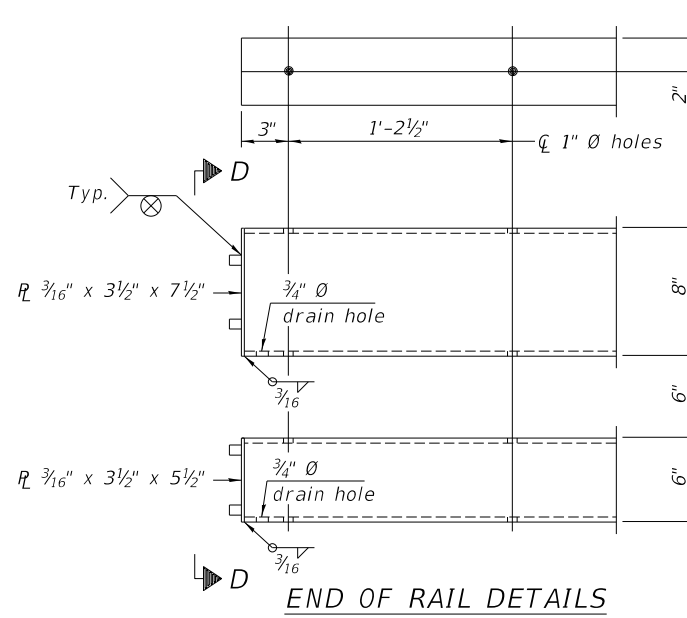
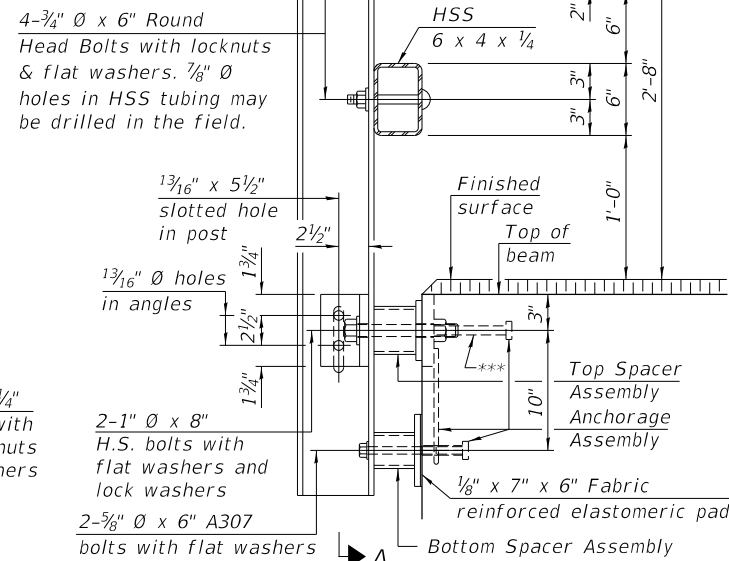
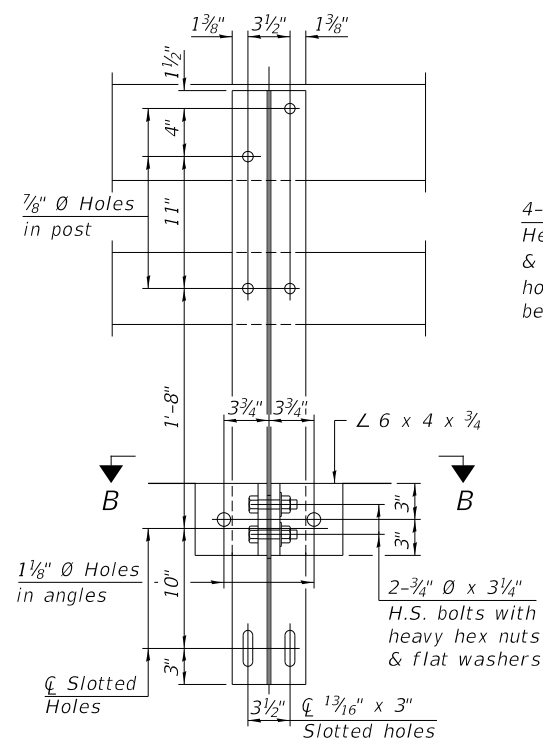
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DRAWN - YP	REVISIONS -	
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PLOT DATE = 2/24/2023	DATE - 11/29/2022	REVISIONS -

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

**SUPERSTRUCTURE DETAILS**

SCALE: NONE SHEET 3 OF 8 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	10
	SN 089-3298		CONTRACT NO. 85742	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. ZGTR(549)		



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	114

All field drilled holes shall be coated with an approved zinc rich paint before erection. A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11 1/2", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than 1/4" (top) or 1/2" (bottom), longer bolts are required. Cost included with Steel Bridge Rail, Type SM.

All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

Rail splice inserts may be built out of 2-3/8" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

\*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

\*Threaded areas shall be plugged or blocked off during casting of beam.  
 \*\*Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

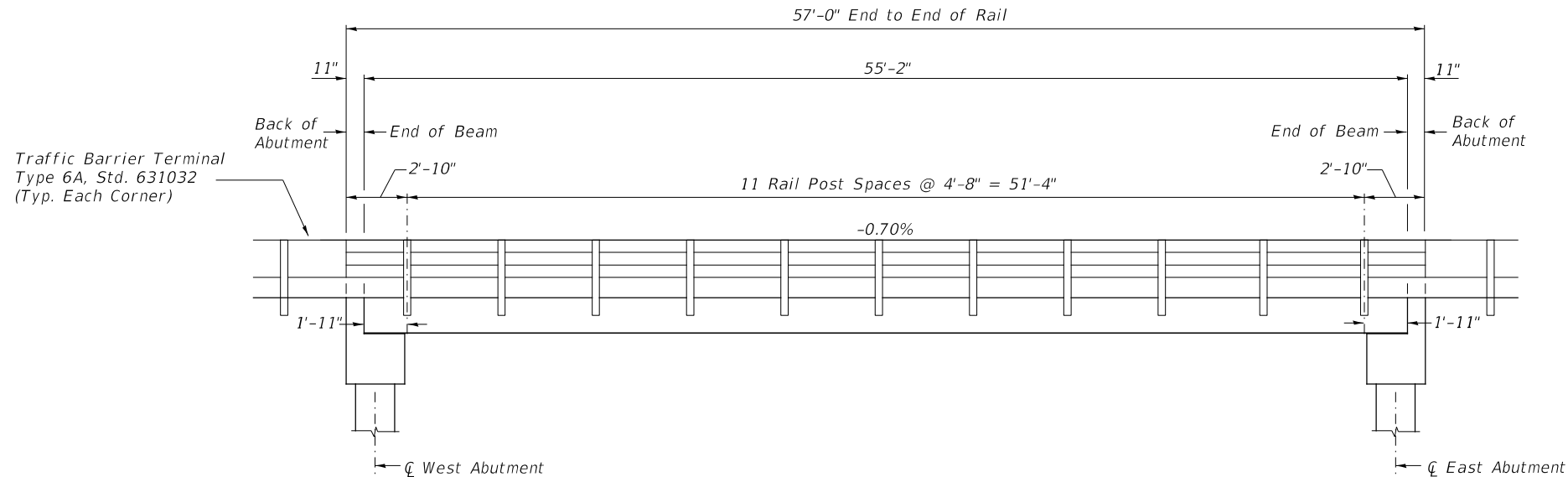
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DRAWN - YP	REVISED -	
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PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED -

STEPHENSON COUNTY  
 F.A.S. 60 (COUNTY HIGHWAY 5)  
 OVER BRANCH OF BROWN CREEK

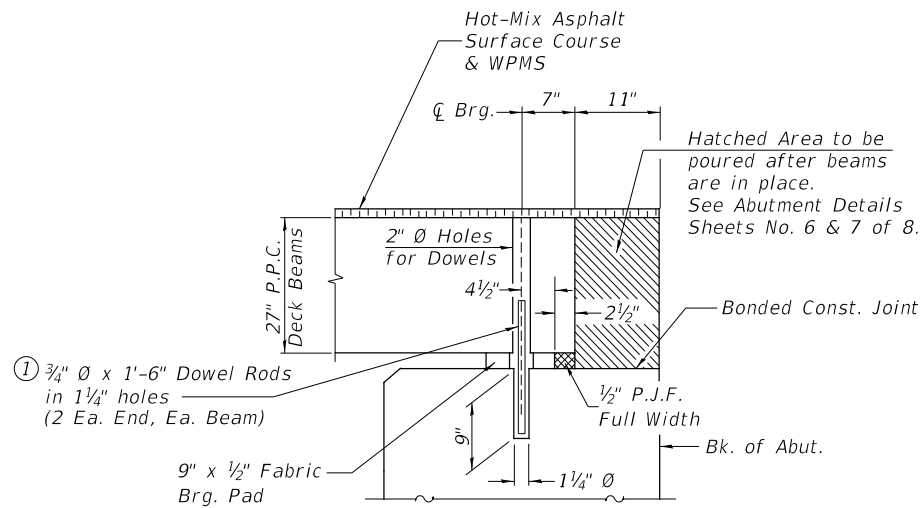
STEEL RAILING, TYPE SM

SCALE: NONE SHEET 4 OF 8 SHEETS

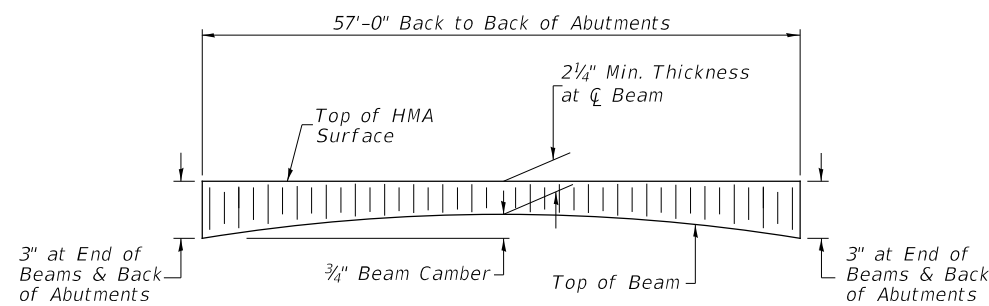
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	11
	SN 089-3298		CONTRACT NO. 85742	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. ZGTR1(549)		



RAIL POST SPACING



SECTION THRU ABUTMENTS



HOT-MIX ASPHALT SURFACE PROFILE

Includes Waterproofing Membrane System ( $\pm 3/4$ )

① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

4882-001.dwg/24/2023 \$TIMES

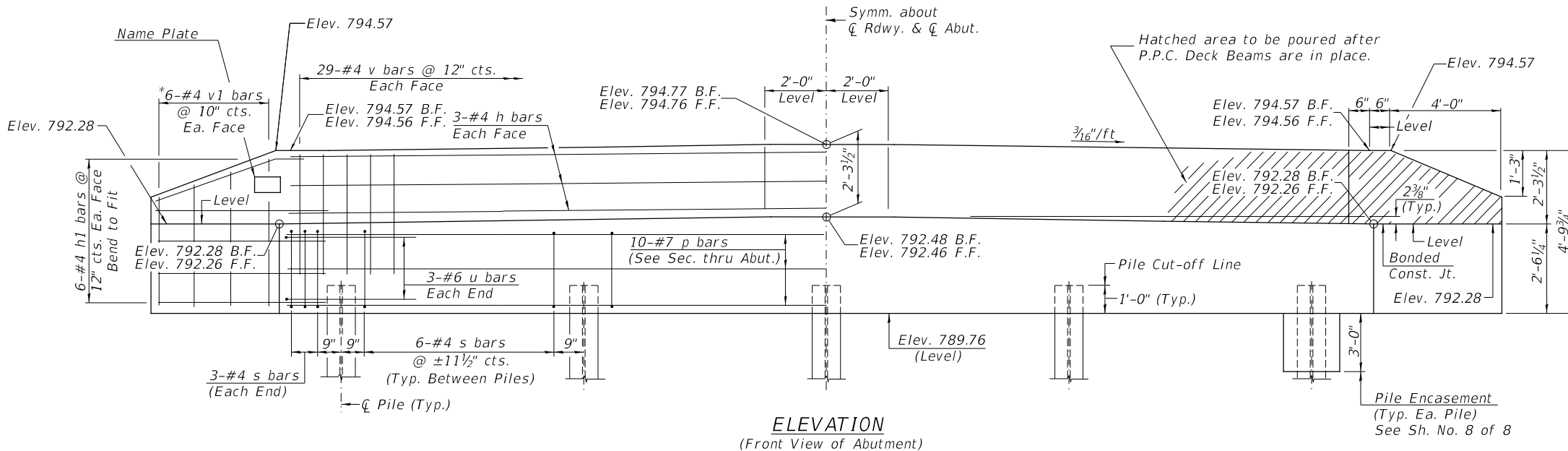
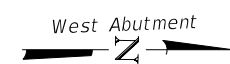
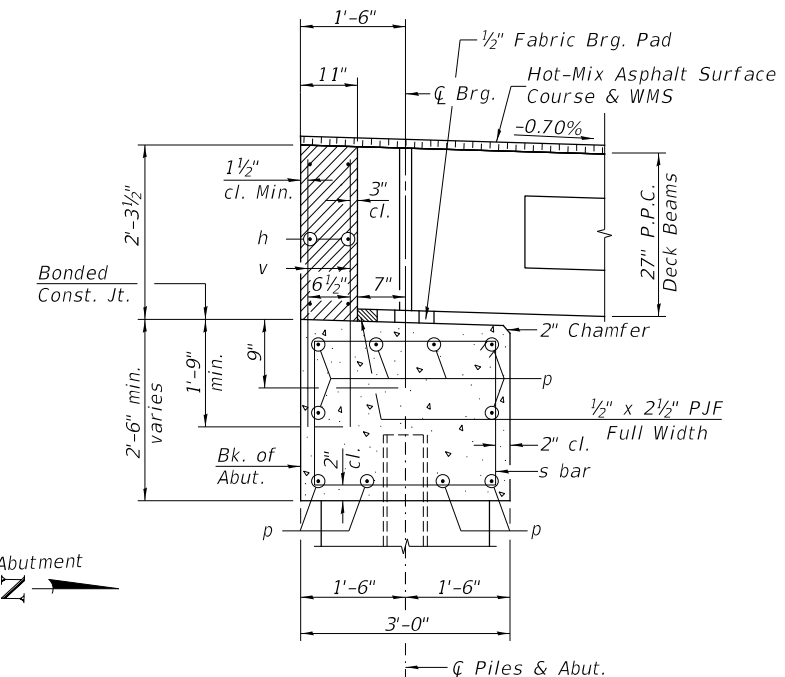
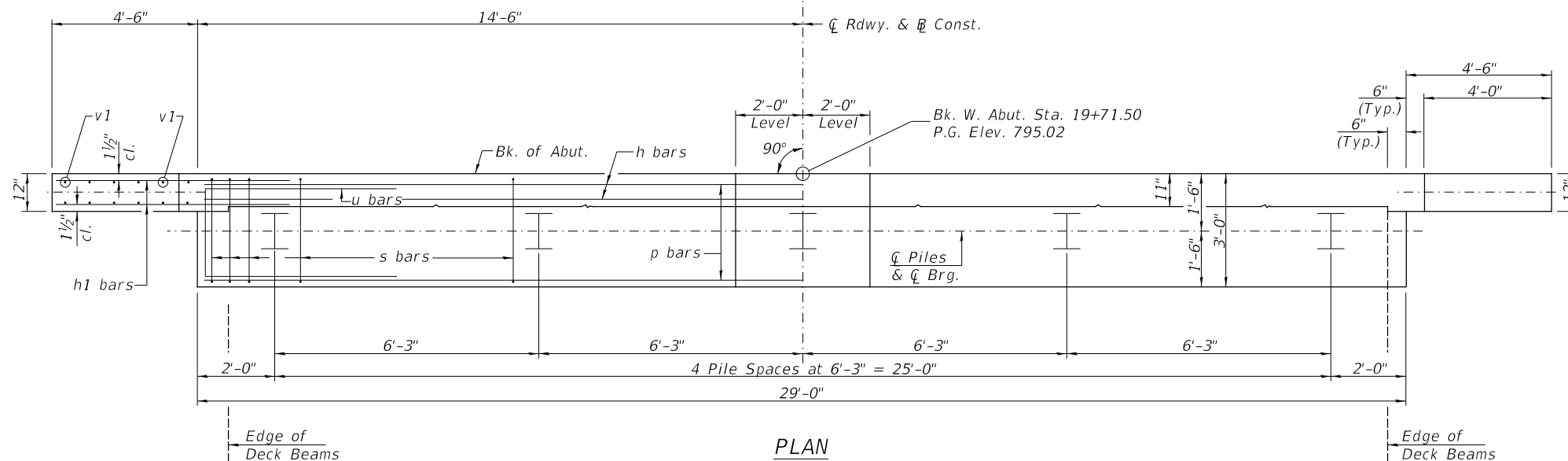
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PLOT SCALE = 100,0000' / in.	CHECKED - MMO/BAN	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

**RAIL POST SPACING**  
**AND SUPERSTRUCTURE DETAILS**

SCALE: NONE SHEET 5 OF 8 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	12
SN 089-3298		CONTRACT NO. 85742		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. ZGTR(549)		

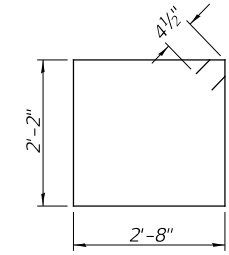
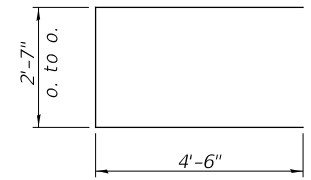
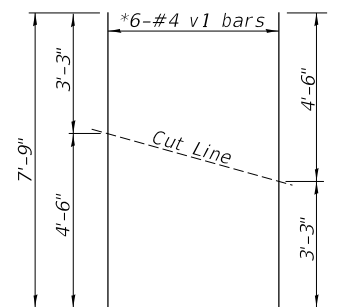


SECTION THRU ABUT.

WEST ABUTMENT BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	6	#4	28'-9"	—
h1	24	#4	6'-6"	—
p	10	#7	28'-9"	—
s	30	#4	10'-5"	□
u	6	#6	11'-7"	□
v	58	#4	4'-0"	—
v1	12	#4	7'-9"	—
Concrete Structures			CU YD	12.1
Reinforcement Bars			POUND	1,340
Structure Excavation			CU YD	55
Name Plates			EACH	1
Furnishing Steel Piles HP10x42			FOOT	192
Driving Piles			FOOT	192
Test Pile Steel HP10x42			EACH	1
Concrete Encasement			CU YD	1.8
Piles Shoes			EACH	5

**PILE DATA**  
 Type & Size: Steel HP10x42 w/Pile Shoes  
 Nominal Required Bearing: 335 kips  
 Factored Resistance Available: 184 kips  
 Est. Length: 48'  
 No. Req'd.: 5 (Includes 1 Test Pile)



B.F. = Back Face  
 F.F. = Front Face

NOTES

- The backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in-place beam.
- All edges shall have standard 3/4" chamfer.

\*Order v1 bars full length. Cut as shown and use remainder of bars in opposite face.

4882-b001.dwg/24/2023 \$TIMES

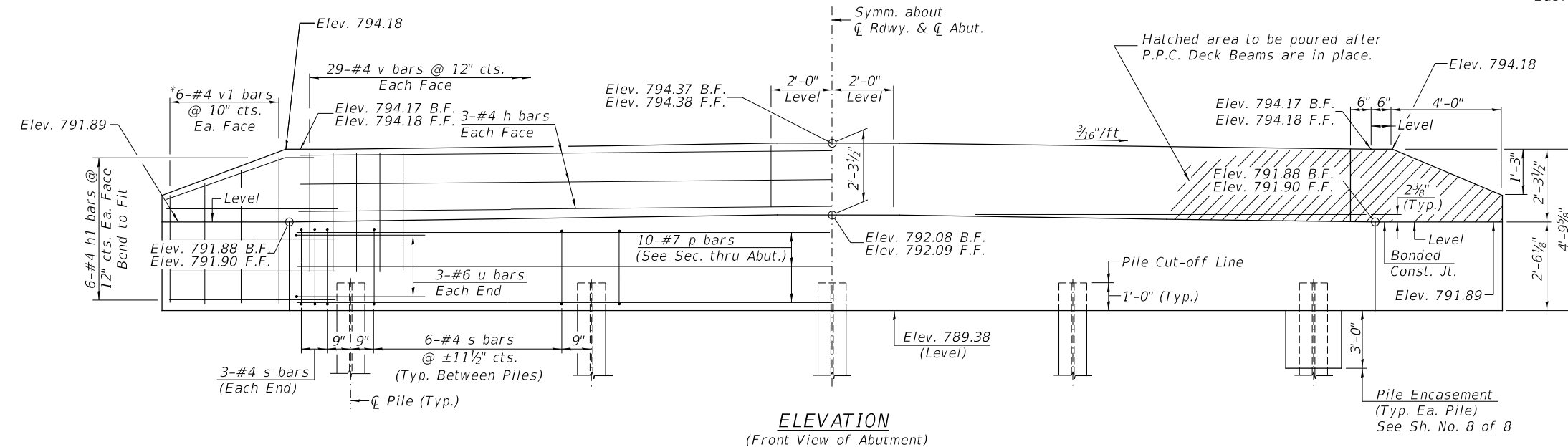
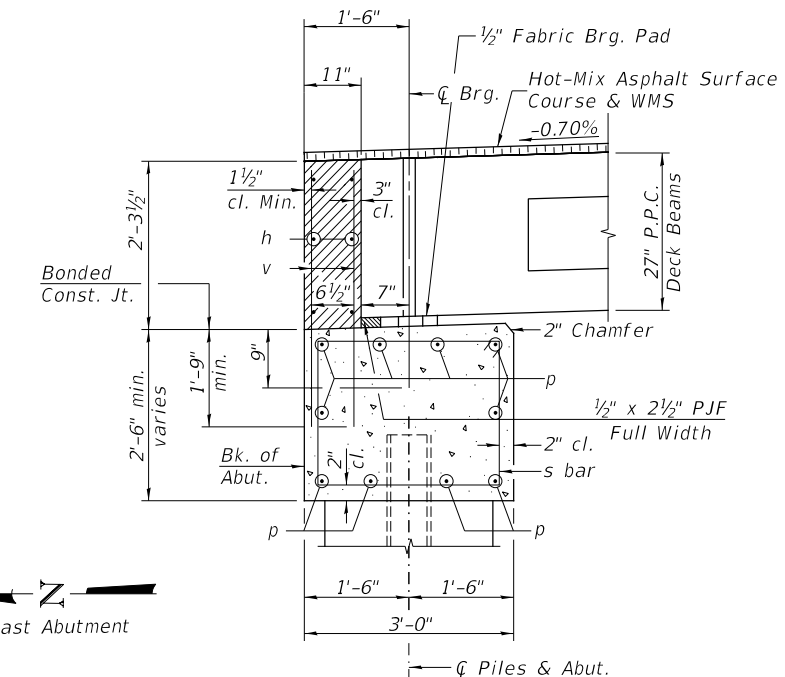
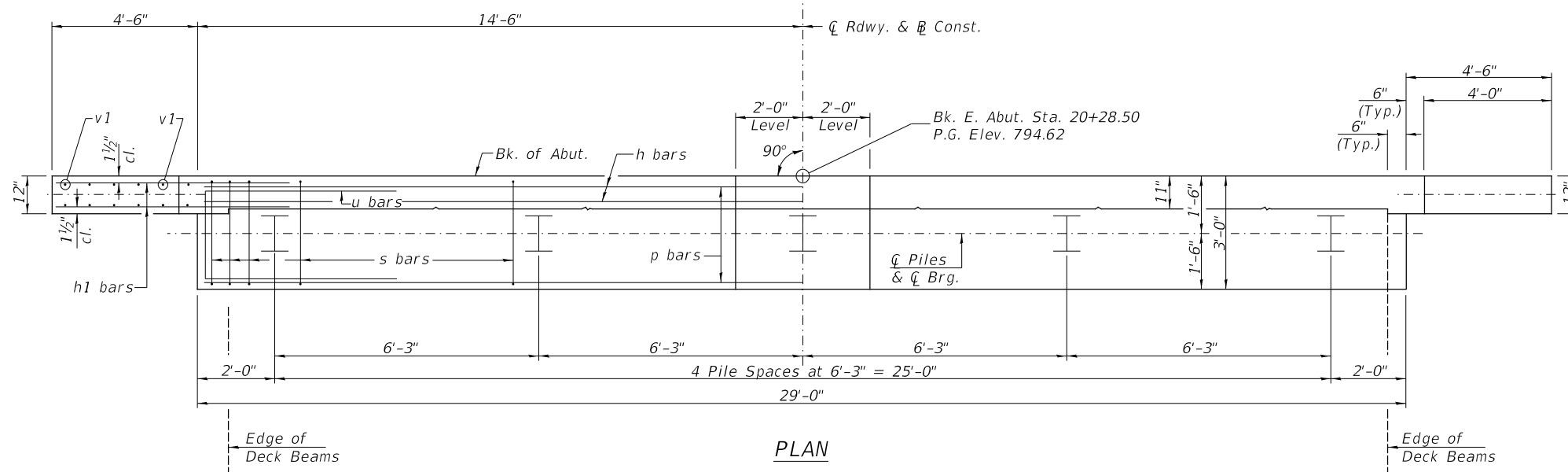
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PLOT SCALE = 100,0000' / in.	CHECKED - MMO/BAN	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

STEPHENSON COUNTY  
 F.A.S. 60 (COUNTY HIGHWAY 5)  
 OVER BRANCH OF BROWN CREEK

WEST ABUTMENT

SCALE: NONE SHEET 6 OF 8 SHEETS

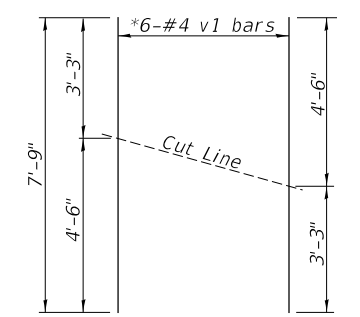
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	13
	SN 089-3298		CONTRACT NO. 85742	
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. ZGTR(549)		



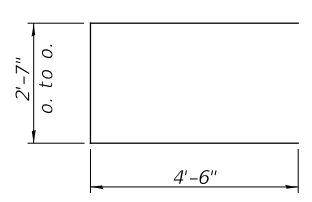
B.F. = Back Face  
F.F. = Front Face

**PILE DATA**

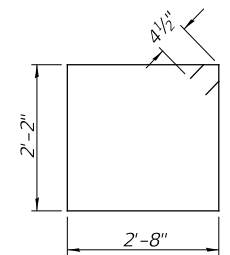
Type & Size: Steel HP10x42 w/ Pile Shoes  
Nominal Required Bearing: 335 kips  
Factored Resistance Available: 184 kips  
Est. Length: 73'  
No. Req'd.: 5 (Includes 1 Test Pile)



**BAR CUTTING DIAGRAM**  
\* Order v1 bars full length. Cut as shown and use remainder of bars in opposite face.



BAR u



BAR s

**EAST ABUTMENT BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	6	#4	28'-9"	—
h1	24	#4	6'-6"	—
p	10	#7	28'-9"	—
s	30	#4	10'-5"	□
u	6	#6	11'-7"	□
v	58	#4	4'-0"	—
v1	12	#4	7'-9"	—
Concrete Structures			CU YD	12.1
Reinforcement Bars			POUND	1,340
Structure Excavation			CU YD	55
Furnishing Steel Piles HP10x42			FOOT	292
Driving Piles			FOOT	292
Test Pile Steel HP10x42			EACH	1
Concrete Encasement			CU YD	1.8
Piles Shoes			EACH	5

**NOTES**

- The backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in-place beam.
- All edges shall have standard 3/4" chamfer.

4882-b001.dwg/24/2023 \$TIMES

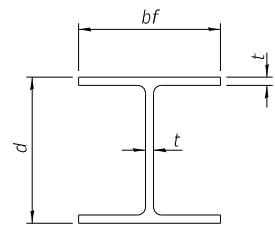
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DRAWN - YP	REVISED - _____	
PLOT SCALE = 100,0000' / in.	CHECKED - MMO/BAN	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY**  
**F.A.S. 60 (COUNTY HIGHWAY 5)**  
**OVER BRANCH OF BROWN CREEK**

**EAST ABUTMENT**

SCALE: NONE SHEET 7 OF 8 SHEETS

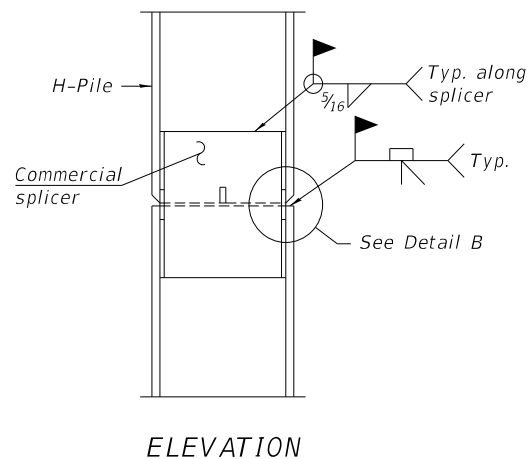
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	14
SN 089-3298		CONTRACT NO. 85742		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. ZGTR(549)		



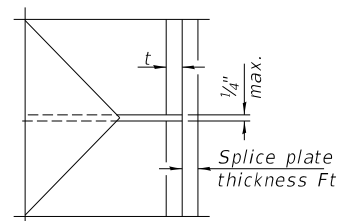
STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/2"	1 1/16"	24"
x74	12 1/8"	12 1/2"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

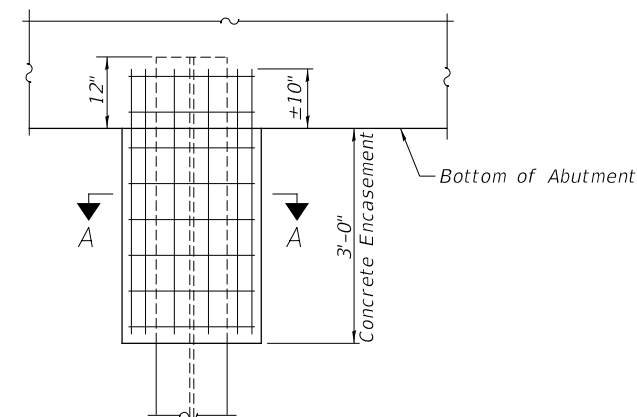
Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.



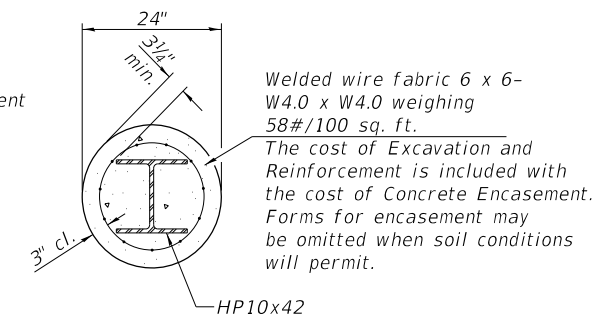
ELEVATION



DETAIL C

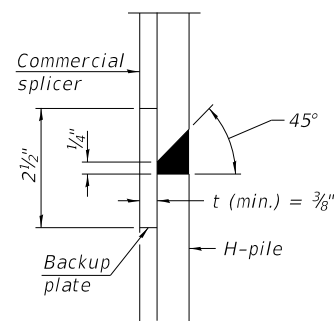


ABUTMENT ELEVATION

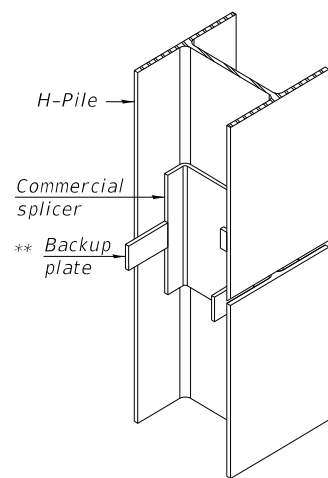


SECTION A-A

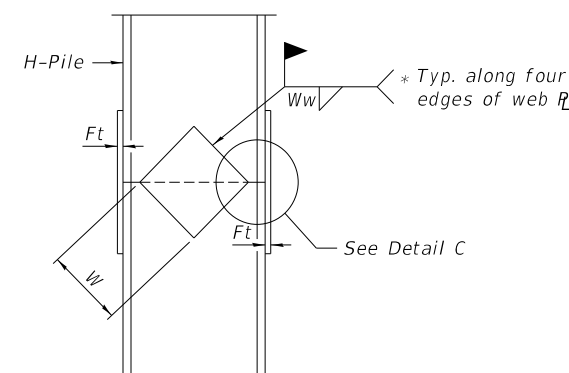
PILE ENCASEMENT



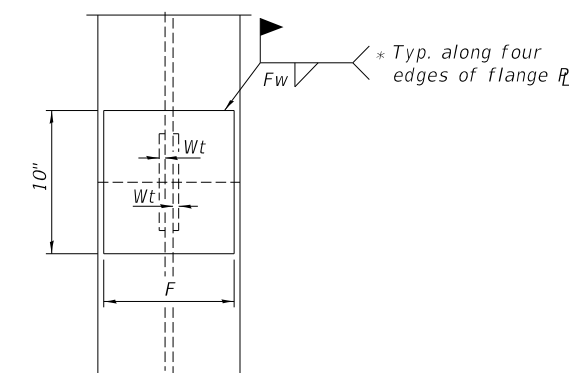
DETAIL "B"



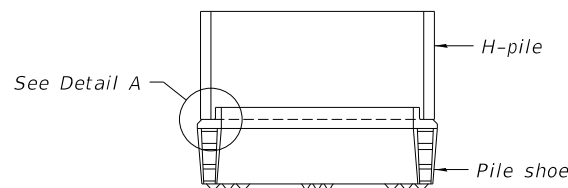
ISOMETRIC VIEW



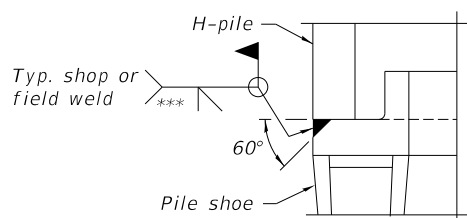
ELEVATION



END VIEW

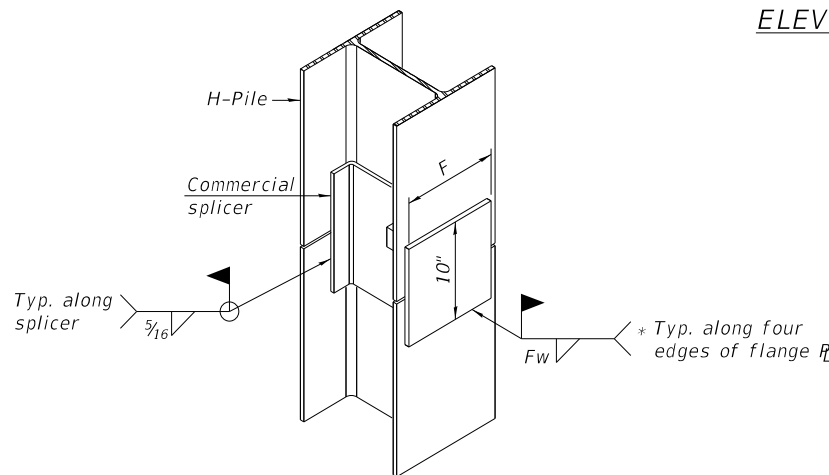


ELEVATION



DETAIL A

SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

\* Interrupt welds 1/4" from end of web and/or each flange.  
\*\* Remove portions of backup plates that extend outside the flanges.  
\*\*\* Weld size per pile shoe manufacturer (5/16" min.).

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

USER NAME = MOgden	DESIGNED - YP	REVISED - _____
DRAWN - YP	REVISIONS - _____	
PLOT SCALE = 100.0000' / in.	CHECKED - MMO/BAN	REVISIONS - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISIONS - _____

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

**HP PILE DETAILS**

SCALE: NONE SHEET 8 OF 8 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	15
	SN 089-3298		CONTRACT NO. 85742	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. ZGTR(549)		

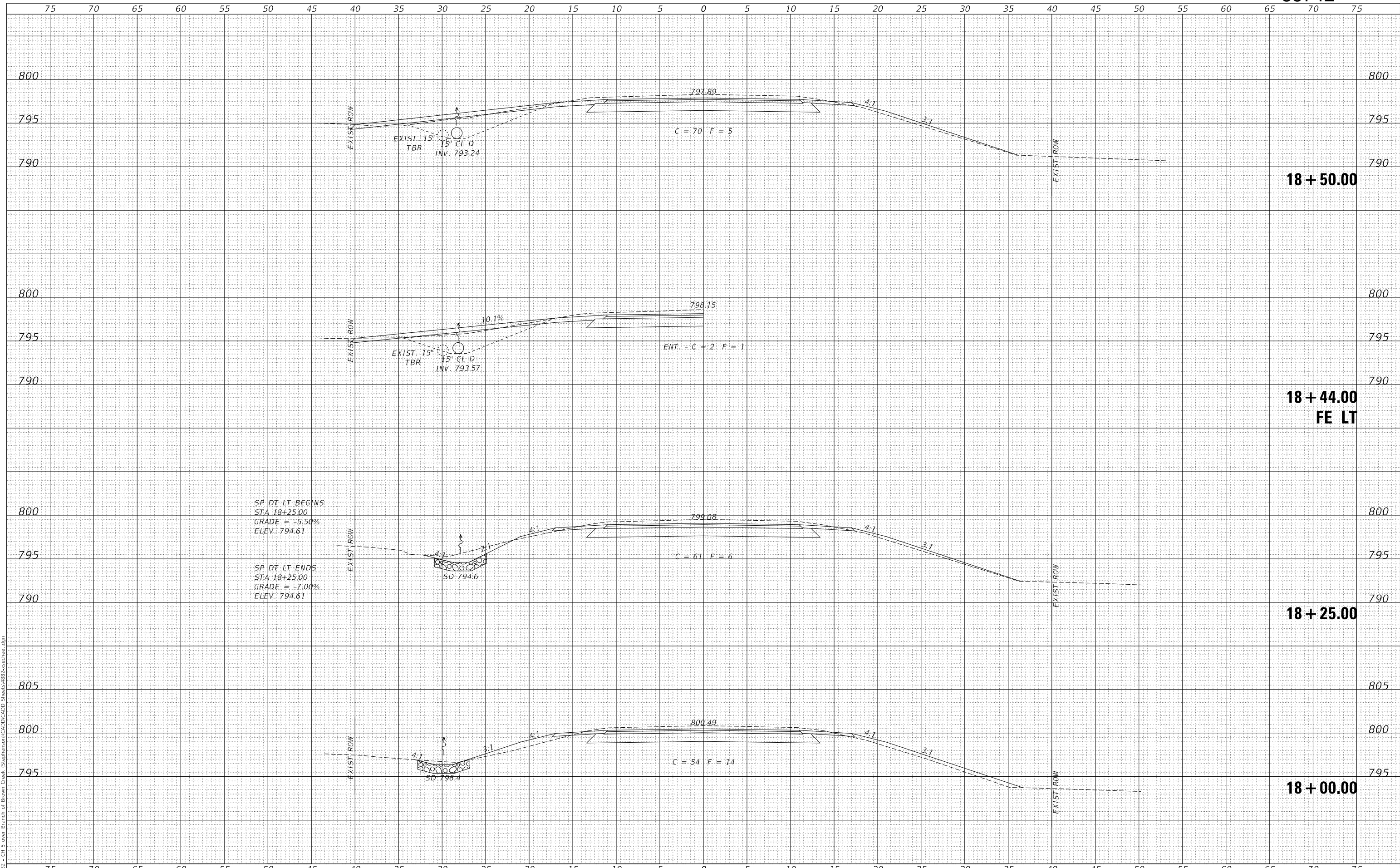




DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

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PLOT SCALE = 10.0000' / in.	CHECKED - MMO/TJW	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

**CROSS SECTIONS**

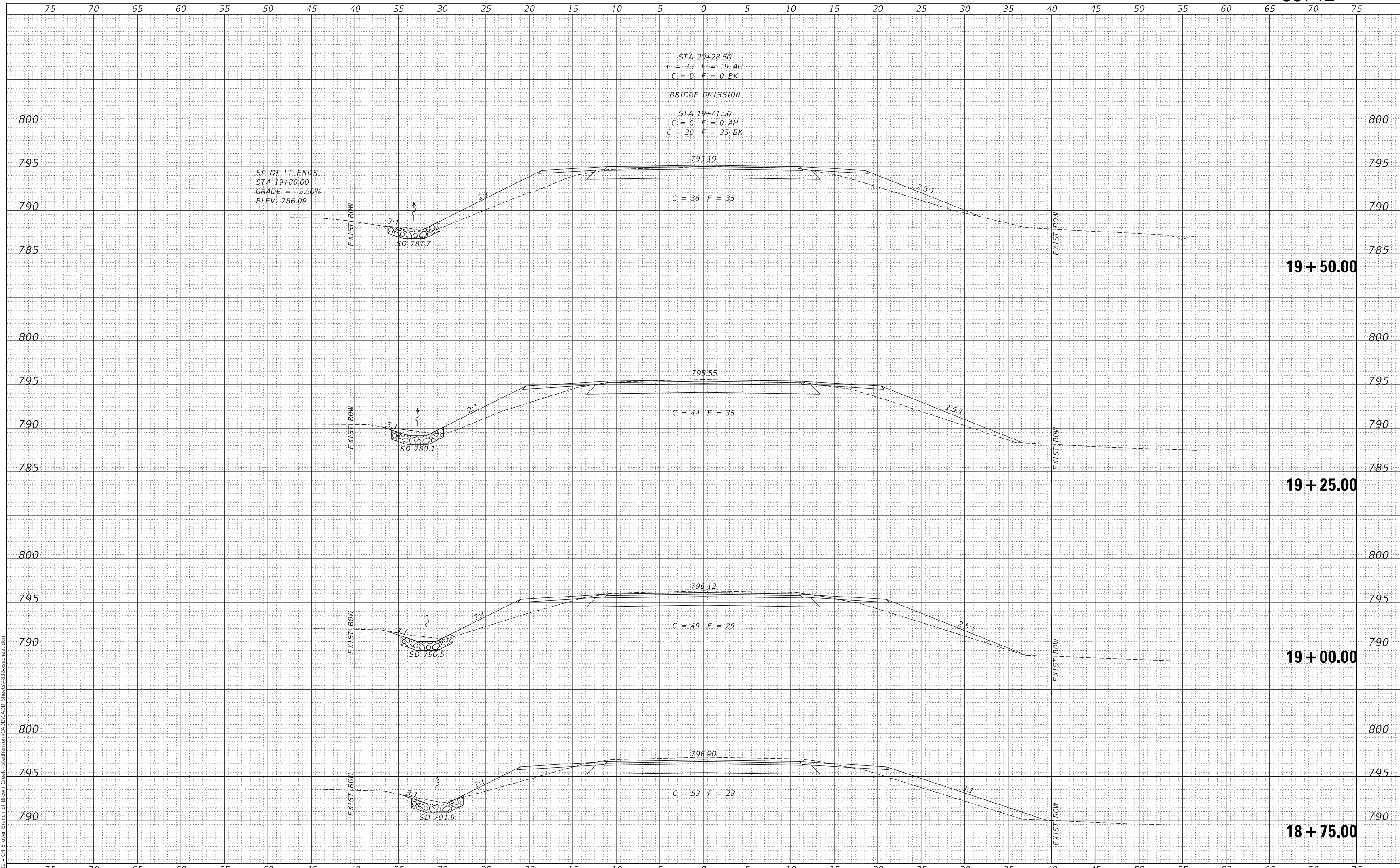
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	17
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 85742	
FED. AID PROJECT NO. ZGR1(549)				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

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USER NAME = MOgden	DESIGNED - YP	REVISED - _____
	DRAWN - YP	REVISED - _____
PLOT SCALE = 10.0000' / in.	CHECKED - MMOT/JW	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

<b>CROSS SECTIONS</b>	
SCALE: 1"=5"	SHEET 3 OF 5 SHEETS
STA. 18+75.00	TO STA. 19+50.00

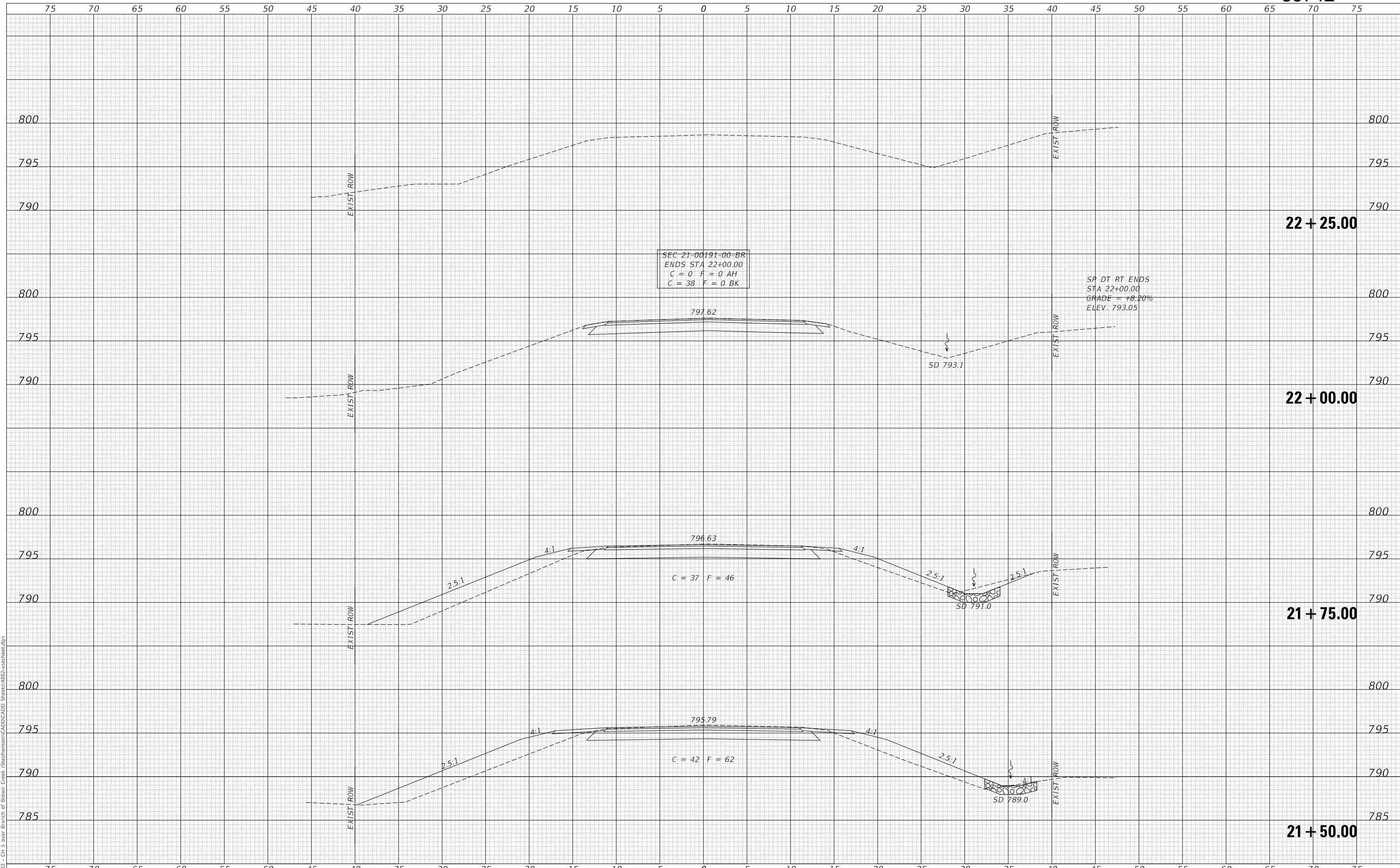
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	18
CONTRACT NO. 85742			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT NO. ZGTR(549)	



DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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SEC 21-00191-00-BR  
ENDS STA 22+00.00  
C = 0 F = 0 AH  
C = 38 F = 0 BK

SP DT RT ENDS  
STA 22+00.00  
GRADE = +8.20%  
ELEV. 793.05

C = 37 F = 46

C = 42 F = 62

**STEPHENSON COUNTY  
F.A.S. 60 (COUNTY HIGHWAY 5)  
OVER BRANCH OF BROWN CREEK**

**CROSS SECTIONS**

USER NAME = MOgden	DESIGNED - YP	REVISED - _____
	DRAWN - YP	REVISED - _____
PLOT SCALE = 10.0000' / in.	CHECKED - MMO/TJW	REVISED - _____
PLOT DATE = 2/24/2023	DATE - 2/15/2023	REVISED - _____

SCALE: 1"=5" SHEET 5 OF 5 SHEETS STA. 21+50.00 TO STA. 22+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60	21-00191-00-BR	STEPHENSON	20	20
CONTRACT NO. 85742				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT NO. ZGTR(549)	