

09/23/2022 LETTING ITEM 045

SEE SHEET NO. 2 FOR  
INDEX OF SHEETS AND  
LIST OF ILLINOIS DOT HIGHWAY STANDARDS

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL-AID PROJECT

## TR 218 OVER BRUSHY FORK SECTION 07-08119-01-BR PROJECT NO. J9JX(577) DOUGLAS COUNTY C-95-006-21

T.R. NO. 218	SECTION 07-08119-01-BR	COUNTY DOUGLAS	TOTAL SHEETS 26	SHEET NO. 1
FEDERAL AID PROJECT		ILLINOIS	CONTRACT NO. 91597	



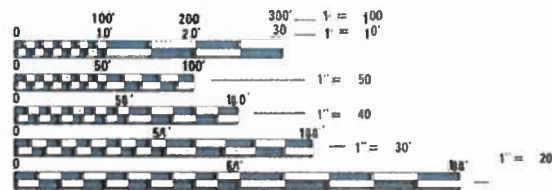
**UTILITY CONTACTS:**

**UTILITY TYPE:**

**ELECTRIC**  
EASTERN ILLINI ELECTRIC CO-OP  
ATTN: ALAN SCHWEIGHART  
PHONE: (217) 379-1231 x173

**UTILITY TYPE:**

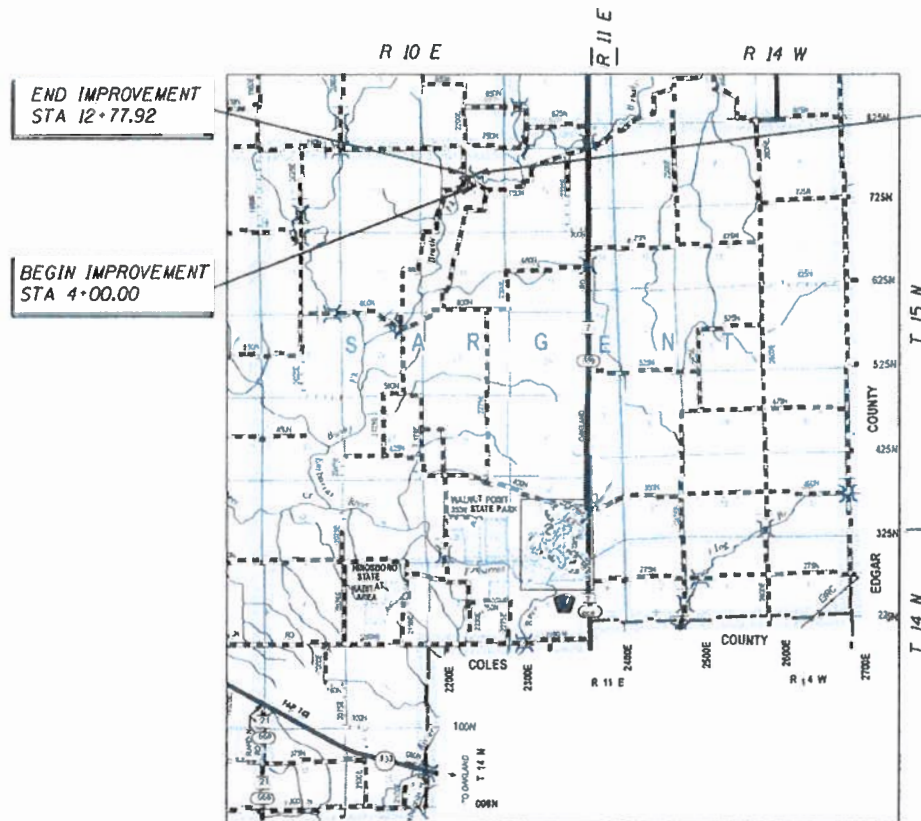
**TELEPHONE**  
FRONTIER COMMUNICATIONS  
ATTN: MARY RUTH WILLIS  
PHONE: (309) 454-1470



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 EXCAVATION  
1-800-892-0123  
OR 811

CONTRACT NO. 91597



END IMPROVEMENT  
STA 12+77.92

BEGIN IMPROVEMENT  
STA 4+00.00

STA 10+06.00  
THREE SPAN PPC DECK BEAM BRIDGE  
140'-9" BK-BK ABUTMENTS  
27'-0" O-O DECK  
0° SKEW

PROPOSED SN 021-4825  
REPLACES  
EXISTING SN 021-4801



**LAYOUT**

Net Length of Section = 877.92 Feet = 0.167 Miles



SCALE IN MILES

FUNCTIONAL CLASSIFICATION : LOCAL ROAD  
DESIGN SPEED 30 MPH  
CURRENT ADT < 250 (2019)



*Kimberly S. Cummins* 7/11/22

ILLINOIS PROFESSIONAL NO. 56896  
(Expires 11/30/23)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

APPROVED July 12 2022

*JSC*  
DOUGLAS COUNTY ENGINEER

PASSED JULY 21 2022

*[Signature]*  
DISTRICT FIVE ENGINEER OF  
LOCAL ROADS AND STREETS

RELEASED FOR  
BID BASED ON  
LIMITED REVIEW

July 21 2022

*[Signature]*  
REGION THREE ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

**INDEX OF SHEETS**

SHEET NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES, INDEX OF SHEETS, HIGHWAY STANDARDS
3-4	SUMMARY OF QUANTITIES
5	TYPICAL CROSS SECTIONS
6	ALIGNMENT, CROSS TIES, AND BENCH MARKS
7	SCHEDULES OF QUANTITIES
8-9	PLAN AND PROFILE SHEETS
10	EROSION CONTROL & SEEDING PLAN
11 - 20	BRIDGE PLANS
21 - 26	CROSS SECTIONS

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
701901-08	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

**GENERAL NOTES**


- ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES AND PIPES ENCOUNTERED ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR EARTH EXCAVATION EXCEPT AS NOTED ON THE PLANS.
- THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS, ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.
- WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER.  
SEEDING, CLASS 2 (SPECIAL) = 0.75 ACRES
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITHIN CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER.
- LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR THE EXACT PIPE LENGTHS.
- ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NAVD 88.

**APPLICATION RATES USED IN QUANTITY CALCULATIONS**

GRANULAR MATERIALS	2.05 TONS/CU YD
RIPRAP	1.75 TONS/CU YD
TEMPORARY EROSION CONTROL SEEDING	100 LBS / ACRE
BITUMINOUS MATERIALS (PRIME COAT)	0.002125 TONS /SQ YD
BITUMINOUS MATERIALS (COVER & SEAL COATS)	0.001700 TONS /SQ YD
COVER COAT AGGREGATE	25 Lb. / SQ YD
SEAL COAT AGGREGATE	25 Lb. / SQ YD

**COMMITMENTS**

NO COMMITMENTS HAVE BEEN MADE ON THIS PROJECT

 <b>Cummins Engineering Corporation</b> <small>Civil and Structural Engineering</small>	JOB = 2253.2	DESIGNED - TEC	REVISED -	<b>DOUGLAS COUNTY SARGENT ROAD DISTRICT TR 218 IMPROVEMENTS</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS, AND ENTRANCES</b>	T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 002-sh1-gen-notes.dgn	DRAWN - TEC	REVISED -			218	07-08119-01-BR	DOUGLAS	26	2
	PLOT SCALE = 1/8" = 100'-0" / in.	CHECKED - CGF	REVISED -			CONTRACT NO. 91597				
	PLOT DATE = 7/11/2022	DATE - 7/8/2022	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTR. CODE	
			80% FED	20% LOCAL
			RURAL	
			0010	S.N. 021-4825
△ 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	550	
△ 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	78	
20101000	TEMPORARY FENCE	FOOT	248	
20200100	EARTH EXCAVATION	CU YD	1,255	
20300100	CHANNEL EXCAVATION	CU YD	595	
20400800	FURNISHED EXCAVATION	CU YD	2,220	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	73	
28000305	TEMPORARY DITCH CHECKS	FOOT	48	
28000400	PERIMETER EROSION BARRIER	FOOT	466	
28000500	INLET AND PIPE PROTECTION	EACH	2	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	700	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	
50105220	PIPE CULVERT REMOVAL	FOOT	14	
50200100	STRUCTURE EXCAVATION	CU YD	60	

\* SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTR. CODE	
			80% FED	20% LOCAL
			RURAL	
			0010	S.N. 021-4825
50200300	COFFERDAM EXCAVATION	CU YD	145	
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1	
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1	
50300225	CONCRETE STRUCTURES	CU YD	100.7	
50300265	SEAL COAT CONCRETE	CU YD	79	
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3,753	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	10,270	
△ 50900205	STEEL RAILING, TYPE S1	FOOT	282	
51201400	FURNISHING STEEL PILES HP10X42	FOOT	898	
51265001	DRILLING AND SETTING PILES (IN SOIL)	CU FT	1,589	
51265002	DRILLING AND SETTING PILES (IN ROCK)	CU FT	377	
51500100	NAME PLATES	EACH	1	
67100100	MOBILIZATION	L SUM	1	
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	70	

\* SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS



JOB = 2253.2  
 FILE NAME = 083-shr-Sum0.dgn  
 PLOT SCALE = 1/8" = 1' / in.  
 PLOT DATE = 7/11/2022

DESIGNED - YEC  
 DRAWN - TEC  
 CHECKED - CGF  
 DATE - 7/8/2022

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

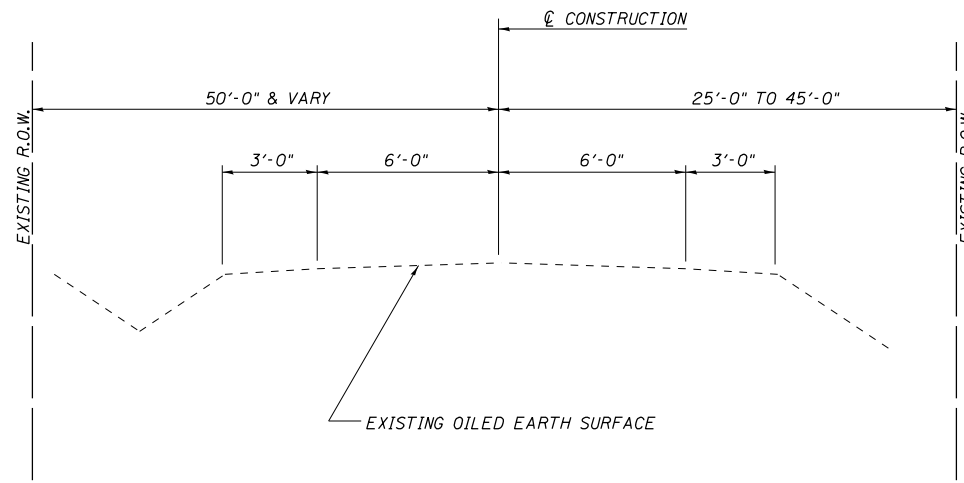
**DOUGLAS COUNTY  
 SARGENT ROAD DISTRICT  
 TR 218 IMPROVEMENTS**

**GENERAL NOTES & SUMMARY OF QUANTITIES**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	3
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 91597	

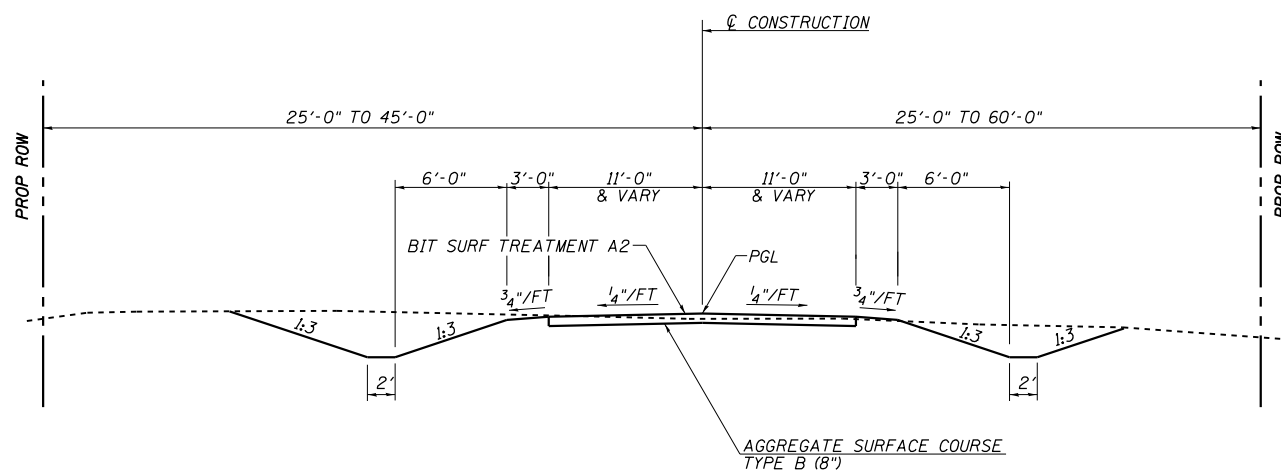




**TYPICAL EXISTING ROADWAY CROSS SECTION**

STA 4+00.00 TO STA 12+77.92

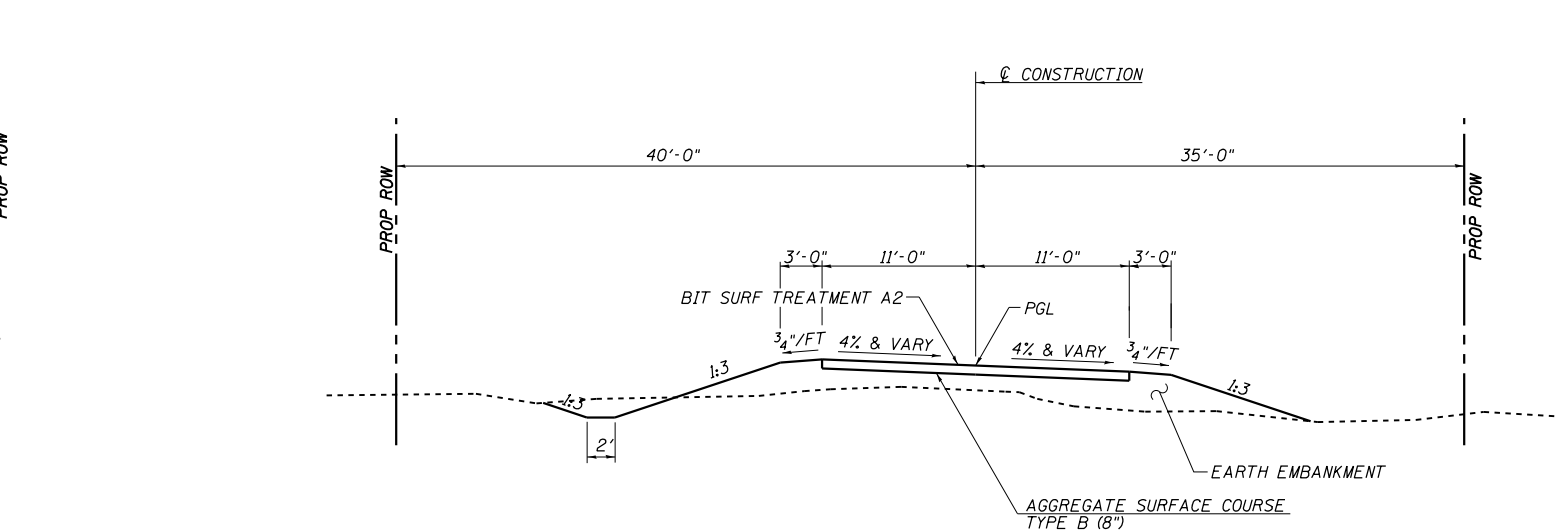
CONSTRUCT CUT SECTION AND FILL SECTION AS SHOWN IN THE STATION CROSS SECTIONS.



**PROPOSED TYPICAL SECTION**

STA 4+00.00 TO STA 5+34.26  
STA 10+76.37 TO STA 12+77.92

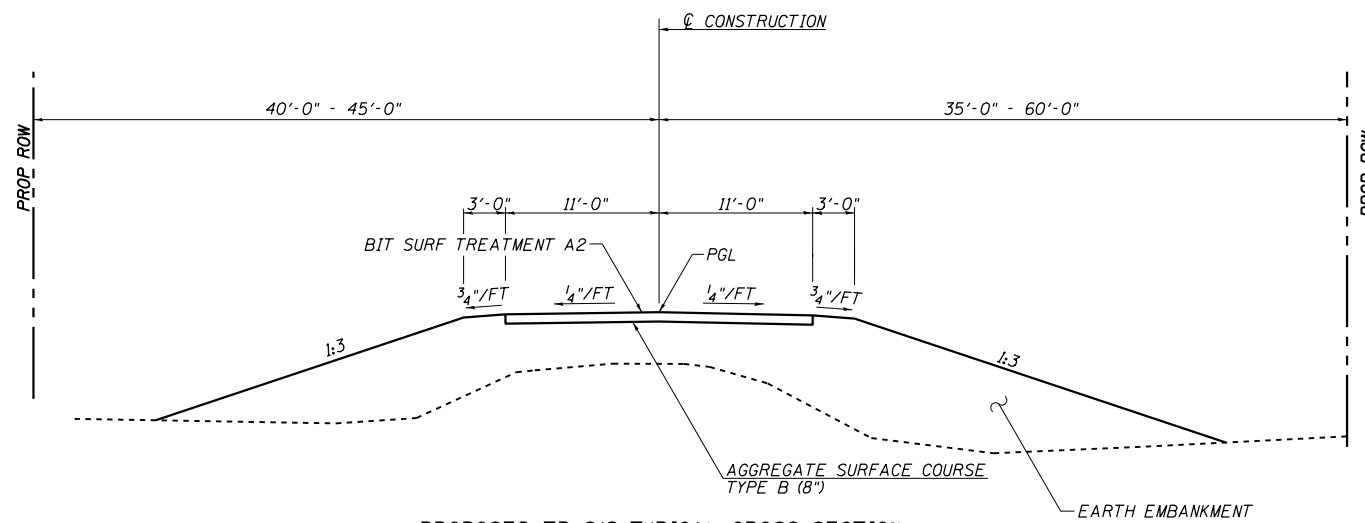
TRANSITION PAVEMENT FROM EXISTING WIDTHS AT STA 4+00.00 TO 22'-0" AT STA 4+75.00 AND EXISTING WIDTHS AT STA 12+77.92



**PROPOSED TYPICAL SECTION**

STA 5+34.26 TO STA 6+26.26 (ATTAIN SE)  
STA 6+26.26 TO STA 7+16.33 (FULL SE)  
STA 7+16.33 TO STA 8+08.33 (REMOVE SE)

BRIDGE OMISSION  
STA 9+35.63 TO STA 10+76.37



**PROPOSED TR 218 TYPICAL CROSS SECTION**

STA 8+08.33 TO STA 9+35.63

MODEL: Default  
FILE: \\mhc-cv\server\csl\URS\_Network\Support\Jobs\Active\_Roadway - 22532\_Douglas\_County\_Sargent\_Road\_District\04-shc\typical.dgn

**CEC** Cummins Engineering Corporation  
Civil and Structural Engineering

JOB = 22532  
FILE NAME = 004-shc-typical.dgn  
PLOT SCALE = 10,0000' / in.  
PLOT DATE = 8/5/2022

DESIGNED - TEC  
DRAWN - TEC  
CHECKED - CGF  
DATE - 7/8/2022

REVISED -  
REVISED -  
REVISED -  
REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

**TYPICAL CROSS SECTIONS**

SCALE: SHEET OF SHEETS STA. TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	5
CONTRACT NO. 91597				
ILLINOIS FED. AID PROJECT				

EARTHWORK						
LOCATION		EXCAVATION	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE	
		CU YD	CU YD	CU YD	(+ ) OR SHORTAGE (-) CU YD	
20200100 EARTH EXCAVATION						
TR 218 N-S SEGMENT	STA 4+00.00 TO STA 9+37.00	307	235	2,982	-2,747	
TR 218 N-S SEGMENT	STA 10+75.00 TO STA 11+56.66	305	230	1	229	
TR 218 E-W SEGMENT	STA 11+52.70 TO STA 12+77.92	396	300	1	299	
TOTAL TR 218 EARTH EXCAVATION		1,010	765	2,985	-2,220	
FURNISHED EXCAVATION						
20200100 EARTH EXCAVATION FOR RIPRAP						
FOR RIPRAP	STA 9+38 TO STA 9+77	120	90	1	89	
FOR RIPRAP	STA 10+35 TO STA 10+77	125	95	0	95	
TOTAL RIPRAP EARTH EXCAVATION		245	185	1	184	
<b>TOTAL EARTH EXCAVATION</b>		<b>1,255</b>	<b>950</b>	<b>2,986</b>	<b>-2,036</b>	
20300100 CHANNEL EXCAVATION						
STA 9+38	TO STA 9+54	170	130	0	130	
STA 10+48	TO STA 10+74	425	320	0	320	
TOTAL CHANNEL EXCAVATION		<b>595</b>	<b>450</b>	<b>0</b>	<b>450</b>	

SHRINKAGE FACTOR = 25%

UNSUITABLE MATERIAL FROM THE CHANNEL EXCAVATION AND RIPRAP EXCAVATION SHALL NOT BE PLACED IN THE PROPOSED EMBANKMENT, BUT SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.

TREE REMOVAL						
LOCATION		UNITS DIAMETER		UNITS DIAMETER		
		6 TO 15	OVER 15	6 TO 15	OVER 15	
		20100110	20100210	20100110	20100210	
33.2' LT	STA 6+94.00	7		26.0' RT	STA 8+04.00	7
32.9' LT	STA 7+02.00	7		23.1' RT	STA 8+11.00	8
30.4' LT	STA 7+06.00	7		35.3' RT	STA 8+19.00	8
28.0' LT	STA 7+17.00	7		21.8' RT	STA 8+21.00	13
28.0' LT	STA 7+17.00	7		17.3' RT	STA 8+23.00	17
32.6' LT	STA 7+21.00	7		40.8' RT	STA 8+24.00	7
34.0' LT	STA 7+24.00	7		31.3' RT	STA 8+36.00	7
34.0' LT	STA 7+24.00	7		33.6' RT	STA 8+38.00	9
25.4' LT	STA 7+39.00	8		41.1' RT	STA 8+46.00	7
29.7' LT	STA 7+46.00	7		41.1' RT	STA 8+46.00	7
29.7' LT	STA 7+46.00	7		33.7' RT	STA 8+60.00	7
33.2' LT	STA 7+80.00	7		46.5' RT	STA 8+64.00	7
33.2' LT	STA 7+80.00	7		28.7' RT	STA 8+79.00	7
33.2' LT	STA 7+80.00	7		28.7' RT	STA 8+79.00	7
35.6' LT	STA 8+79.00	7		40.5' RT	STA 8+78.00	13
31.4' LT	STA 8+80.00	8		34.4' RT	STA 8+88.00	11
40.5' LT	STA 8+90.00	10		30.7' RT	STA 8+92.00	20
32.6' LT	STA 8+93.00	10		30.3' RT	STA 8+96.00	7
35.3' LT	STA 8+94.00	7		33.8' RT	STA 8+98.00	7
41.8' LT	STA 8+99.00	7		33.8' RT	STA 8+98.00	7
35.4' LT	STA 9+00.00	7		30.7' RT	STA 9+00.00	7
25.0' LT	STA 9+09.00	13		26.5' RT	STA 9+05.00	7
32.8' LT	STA 9+10.00	7		27.4' RT	STA 9+09.00	13
38.6' LT	STA 9+21.00	8		32.6' RT	STA 9+15.00	8
36.2' LT	STA 9+23.00	7		34.7' RT	STA 9+18.00	7
34.9' LT	STA 9+25.00	7		30.1' RT	STA 9+21.00	7
32.3' LT	STA 10+52.00	11		39.8' RT	STA 9+25.00	18
32.3' LT	STA 10+52.00	11		28.1' RT	STA 9+39.00	7
32.0' LT	STA 10+60.00	7		28.1' RT	STA 9+39.00	7
21.9' RT	STA 7+56.00	13		31.6' RT	STA 9+41.00	10
32.9' RT	STA 7+65.00	7		37.3' RT	STA 9+44.00	18
23.2' RT	STA 7+70.00	7		32.0' RT	STA 10+54.00	13
26.6' RT	STA 7+72.00	7		23.0' RT	STA 10+55.00	7
28.8' RT	STA 7+98.00	9		23.0' RT	STA 10+55.00	7
31.4' RT	STA 8+01.00	7		32.0' RT	STA 10+94.00	7
35.0' RT	STA 8+02.00	9		30.3' RT	STA 11+00.00	7
35.0' RT	STA 8+02.00	9		33.4' RT	STA 11+00.00	22
TOTAL						78

40200800 AGGREGATE SURFACE COURSE, TYPE B					
LOCATION		WIDTH	THICKNESS	QUANTITY	
		FOOT	INCH	TON	
STA 4+00.00	TO STA 9+35.63	22	8	596.47	
STA 10+76.37	TO STA 11+52.70	22	8	85.00	
STA 11+27.70	TO STA 12+77.92	VARIES	8	18.05	
TOTAL				699.52	
USE				700	
LR403200 BITUMINOUS MATERIALS (PRIME COAT)					
LOCATION		WIDTH	RATE	QUANTITY	
		FOOT	GAL/SQ YD	TON	
STA 4+00.00	TO STA 9+35.63	22	0.35	1.81	
STA 11+27.70	TO STA 12+77.92	22	0.35	0.51	
STA 11+27.70	TO STA 12+77.92	VARIES	0.35	0.49	
TOTAL				2.81	
USE				3	
LR403400 BITUMINOUS MATERIALS (COVER AND SEAL COATS)					
LOCATION		WIDTH	RATE	QUANTITY	
		FOOT	GAL/SQ YD	TON	
STA 4+00.00	TO STA 9+35.63	22	0.35	1.81	
STA 11+27.70	TO STA 12+77.92	22	0.35	0.51	
STA 11+27.70	TO STA 12+77.92	VARIES	0.35	0.49	
TOTAL				2.81	
USE				3	
LR403500 COVER COAT AGGREGATE					
LOCATION		WIDTH	RATE	QUANTITY	
		FOOT	LB/SQ YD	TON	
STA 4+00.00	TO STA 9+35.63	22	25	16.37	
STA 10+76.37	TO STA 11+52.70	22	25	2.33	
STA 11+27.70	TO STA 12+77.92	VARIES	25	4.46	
TOTAL				23.16	
USE				23	
LR403600 SEAL COAT AGGREGATE					
LOCATION		WIDTH	RATE	QUANTITY	
		FOOT	LB/SQ YD	TON	
STA 4+00.00	TO STA 9+35.63	22	25	16.37	
STA 10+76.37	TO STA 11+52.70	22	25	2.33	
STA 11+27.70	TO STA 12+77.92	VARIES	25	4.46	
TOTAL				23.16	
USE				23	

20101000 TEMPORARY FENCE		
LOCATION		FOOT
LT STA 8+80.00	TO STA 9+48.00	68
LT STA 9+49.00	TO STA 9+64.00	30
LT STA 10+28.00	TO STA 10+53.00	30
RT STA 8+67.00	TO STA 9+06.00	40
RT STA 9+52.00	TO STA 9+89.00	40
RT STA 10+27.00	TO STA 10+58.00	40
TOTAL		248

X2501000 SEEDING, CLASS 2 (SPECIAL)		
LOCATION		ACRE
TR 218		
LT STA 4+00.00	TO STA 9+52.00	0.27
LT STA 10+49.00	TO STA 12+78.00	0.06
RT STA 4+00.00	TO STA 9+54.00	0.28
RT STA 10+47.00	TO STA 11+17.00	0.05
RT STA 11+17.00	TO STA 12+78.00	0.07
TOTAL		0.73
USE		0.75

28000250 TEMPORARY EROSION CONTROL SEEDING		
LOCATION		POUND
TR 218		
LT STA 4+00.00	TO STA 9+52.00	27
LT STA 10+49.00	TO STA 12+78.00	6
RT STA 4+00.00	TO STA 9+54.00	28
RT STA 10+47.00	TO STA 11+17.00	5
RT STA 11+17.00	TO STA 12+78.00	7
TOTAL		73

28000305 TEMPORARY DITCH CHECKS		
LOCATION		FOOT
LT STA 5+50.00		8
LT STA 7+33.00		8
LT STA 12+77.92		8
RT STA 5+50.00		8
RT STA 11+00.00		8
RT STA 12+77.92		8
TOTAL		48

28000400 PERIMETER EROSION BARRIER		
LOCATION		FOOT
LT STA 7+33.00	TO STA 8+80.00	147
LT STA 10+53.00	TO STA 10+81.00	29
RT STA 6+74.00	TO STA 8+67.00	186
RT STA 9+06.00	TO STA 9+57.00	51
RT STA 10+58.00	TO STA 11+10.00	53
TOTAL		466

28000500 INLET AND PIPE PROTECTION		
LOCATION		EACH
LT STA 6+43.00		1
RT STA 6+43.00		1
TOTAL		2

50105220 PIPE CULVERT REMOVAL		
LOCATION		FOOT
RT STA 14+51.00		14
TOTAL		14

542D0220 PIPE CULVERTS, CLASS D, TYPE 1 15"		
LOCATION		FOOT
LT STA 14+51.00		36
RT STA 14+51.00		34
TOTAL		70



JOB = 2253.2	DESIGNED - TEC	REVISED -
FILE NAME = 005-sh-t-schedules.dgn	DRAWN - TEC	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - CGF	REVISED -
PLOT DATE = 7/11/2022	DATE - 7/8/2022	REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

**SCHEDULES OF QUANTITIES**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

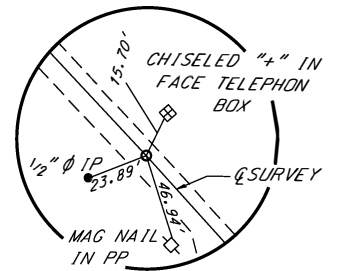
T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	6
CONTRACT NO. 91597				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

CENTERLINE CR 2225			
CONTROL POINT	STATION	NORTHING	EASTING
PI	95+75.00	1178.19	544.08
PI	96+46.56	1238.70	582.29
PI	104+25.04	1896.91	997.96

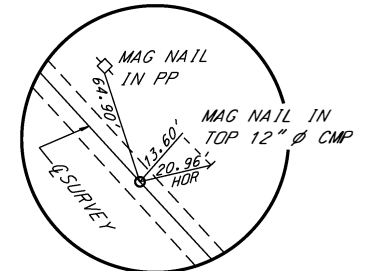
CENTERLINE TR 218			
CONTROL POINT	STATION	NORTHING	EASTING
POT	4+52.23	472.75	1096.51
PC	6+03.27	608.51	1030.33
PI	6+72.49	670.74	1000.00
PT	7+39.33	739.96	1000.00
PI	9+99.37	1000.00	1000.00
PI	11+16.70	1117.33	1000.00
PC	11+52.78	1117.32	963.91
PI	11+74.09	1117.32	942.61
PT	11+95.02	1124.13	922.41
PI	15+53.92	1238.70	582.29

PROP. CURVE C1  
 PI STA. = 6+72.49  
 $\Delta = 25^\circ 59' 14''$  (RT)  
 $D = 19^\circ 05' 55''$   
 $R = 300.00'$   
 $T = 69.23'$   
 $L = 136.07'$   
 $E = 7.88'$   
 P.C. STA. = 6+03.27  
 P.T. STA. = 7+39.33  
 $SE = 4.0\%$   
 ATTAIN SE STA 5+34.26 TO STA 6+26.26  
 REMOVE SE STA 7+16.33 TO STA 8+08.33

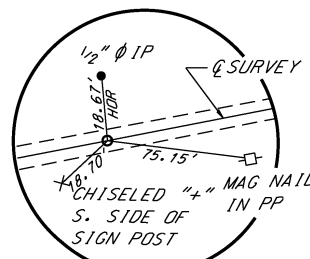
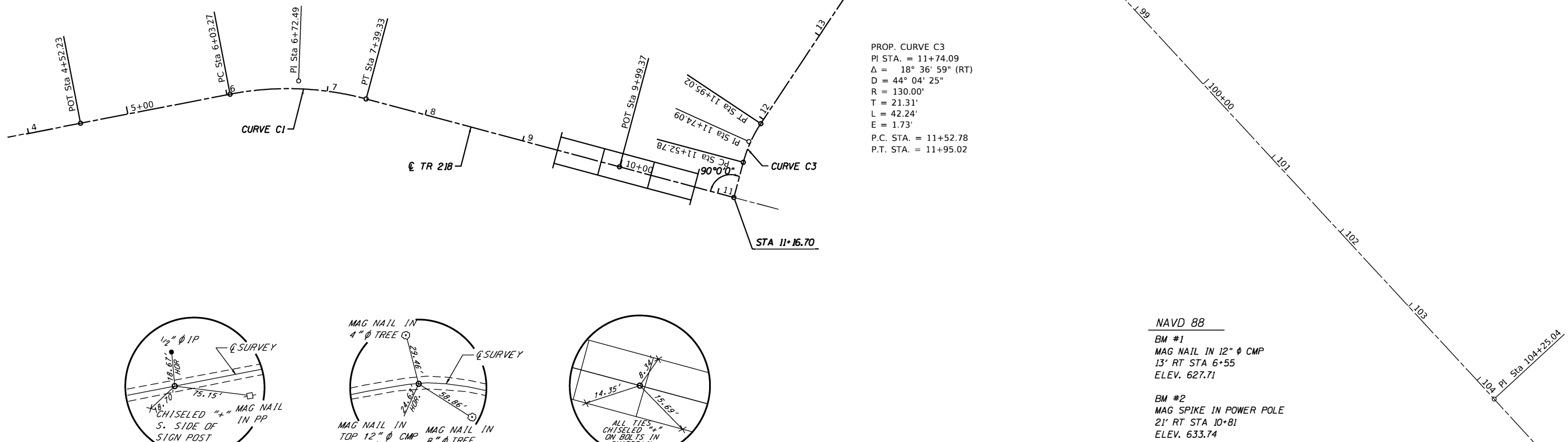
PROP. CURVE C3  
 PI STA. = 11+74.09  
 $\Delta = 18^\circ 36' 59''$  (RT)  
 $D = 44^\circ 04' 25''$   
 $R = 130.00'$   
 $T = 21.31'$   
 $L = 42.24'$   
 $E = 1.73'$   
 P.C. STA. = 11+52.78  
 P.T. STA. = 11+95.02



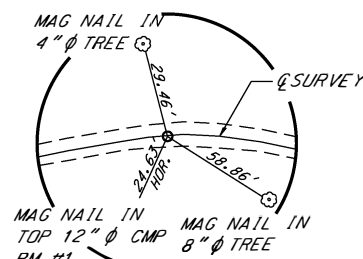
POT STA 95+75.00  
MAG NAIL (SET)



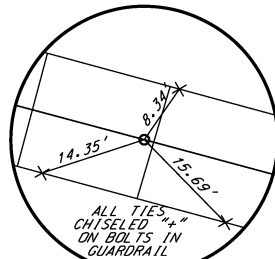
POT STA 104+25.04  
MAG NAIL (SET)



POT STA 4+52.23  
1/2" IP (SET)



PI STA 6+72.49  
1/2" IP (SET)



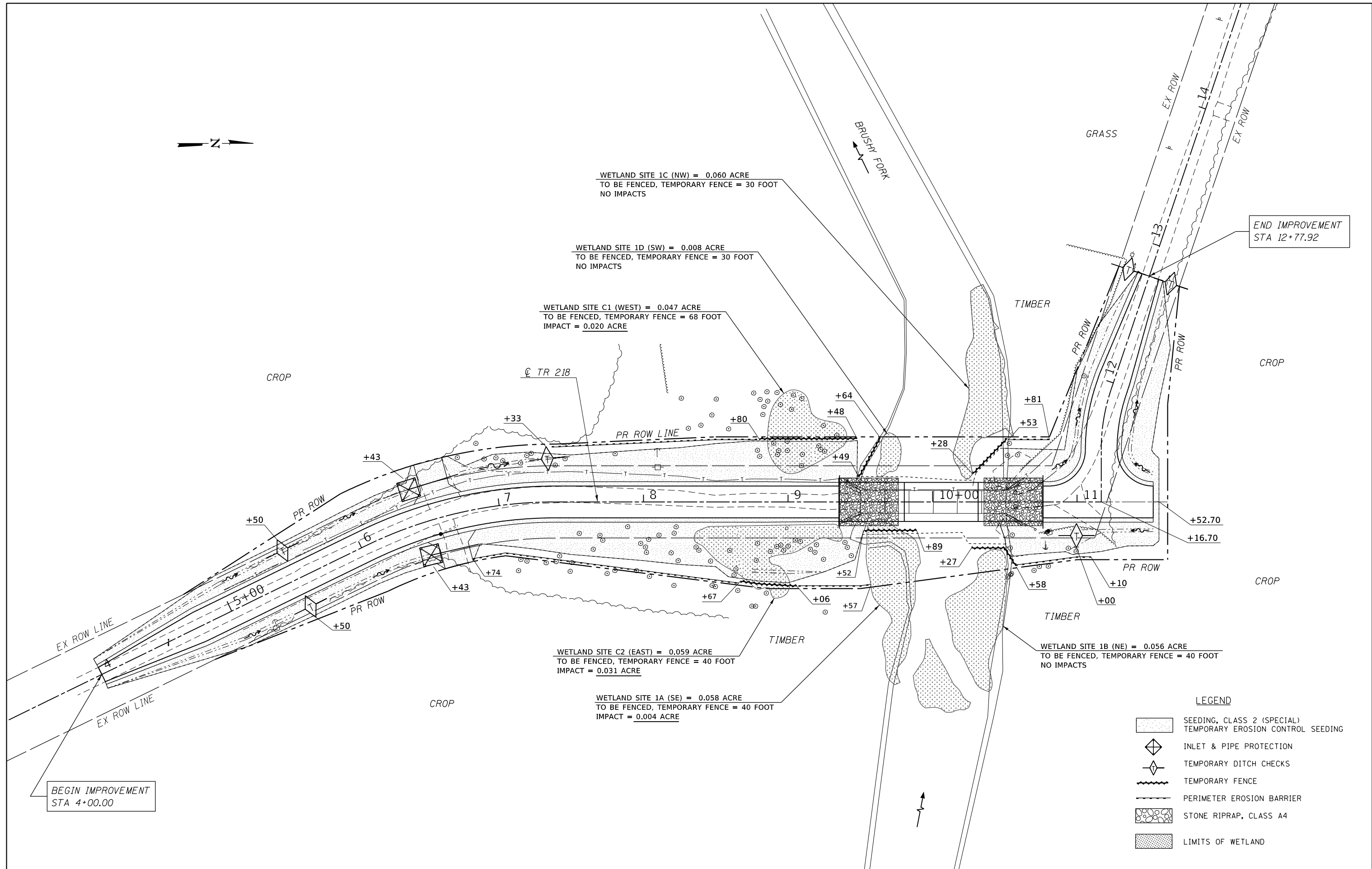
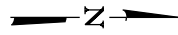
POT STA 10+00.00  
MAG NAIL (SET)

NAVD 88  
 BM #1  
 MAG NAIL IN 12"  $\phi$  CMP  
 13' RT STA 6+55  
 ELEV. 627.71  
 BM #2  
 MAG SPIKE IN POWER POLE  
 21' RT STA 10+81  
 ELEV. 633.74  
 BM #5  
 MAG SPIKE IN POWER POLE  
 21' LT STA 14+63  
 ELEV. 629.95









**LEGEND**

	SEEDING, CLASS 2 (SPECIAL) TEMPORARY EROSION CONTROL SEEDING
	INLET & PIPE PROTECTION
	TEMPORARY DITCH CHECKS
	TEMPORARY FENCE
	PERIMETER EROSION BARRIER
	STONE RIPRAP, CLASS A4
	LIMITS OF WETLAND

**CEC** Cummins  
Engineering  
Corporation  
Civil and Structural Engineering

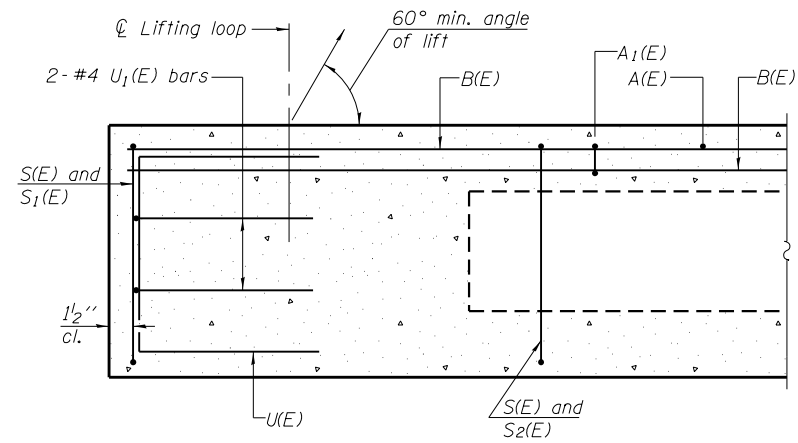
JOB = 2253.2	DESIGNED - TEC	REVISED -
FILE NAME = 008-shr-eros.dgn	DRAWN - TEC	REVISED -
PLOT SCALE = 60.0000' / in.	CHECKED - CFG	REVISED -
PLOT DATE = 7/11/2022	DATE - 7/8/2022	REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

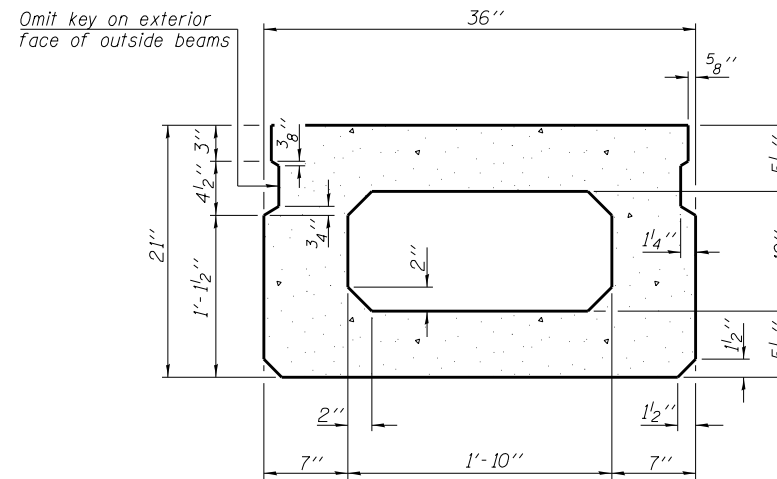
<b>EROSION CONTROL &amp; SEEDING PLAN</b>			
SCALE: 1" = 30'	SHEET NO.	OF SHEETS	STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	10
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 91597				

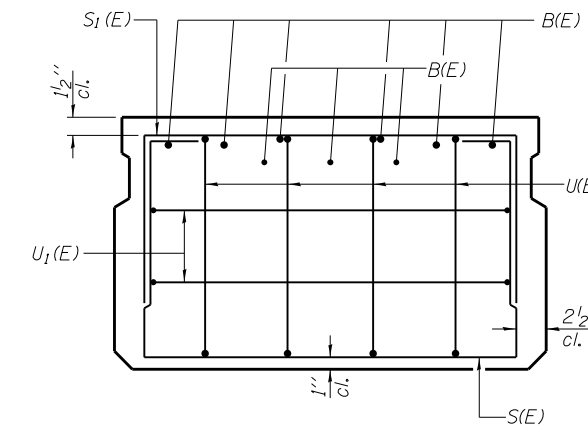




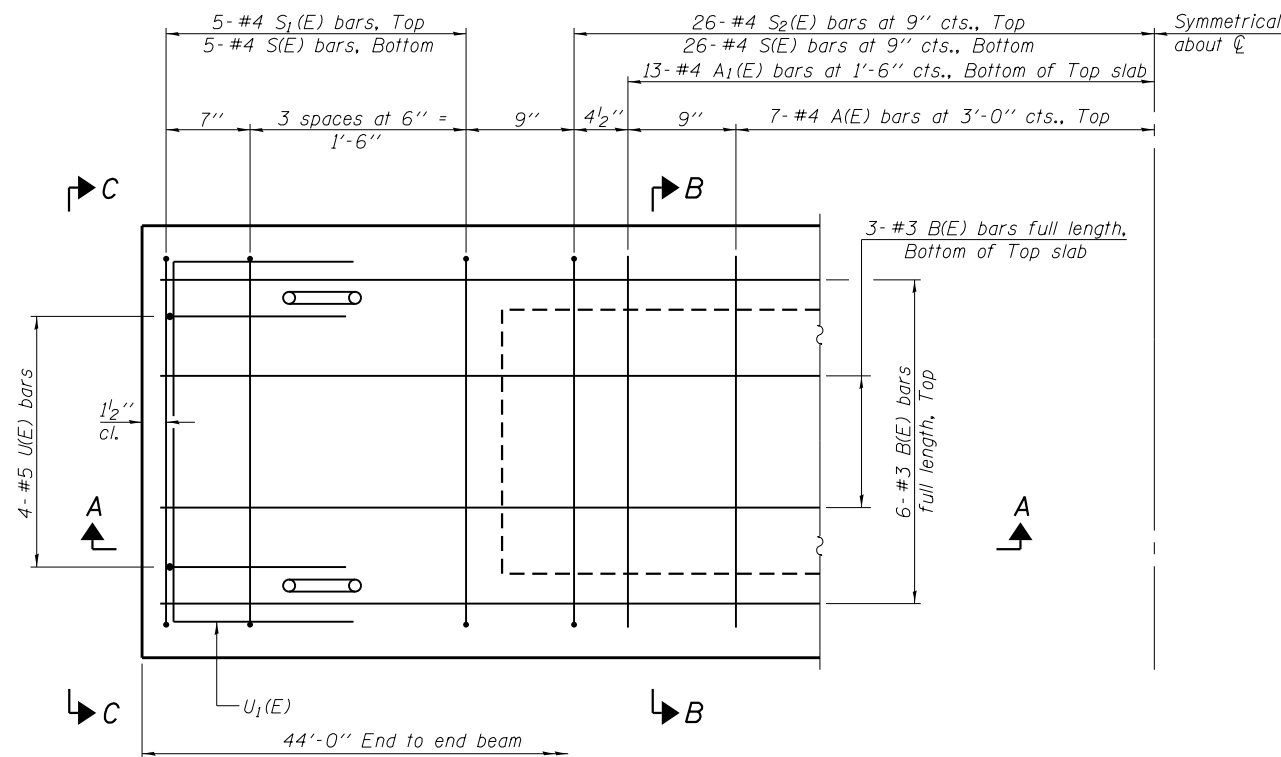
**SECTION A-A**



**SECTION B-B**  
(Showing dimensions)

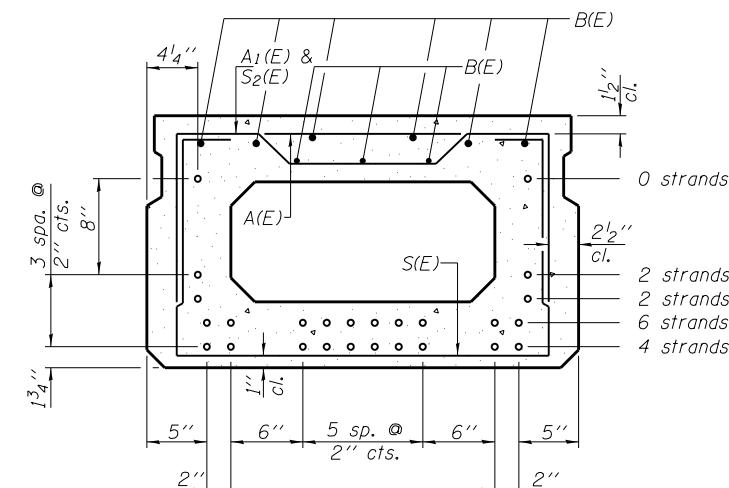


**VIEW C-C**



**PLAN VIEW**

Note: Spacing of S(E) and S<sub>2</sub>(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.

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

Bar	No.	Size	Length	Shape
A(E)	14	#4	2'-7"	—
A <sub>1</sub> (E)	26	#4	2'-10"	~
B(E)	9	#3	43'-9"	—
S(E)	62	#4	6'-5"	⌊
S <sub>1</sub> (E)	10	#4	4'-11"	⌊
S <sub>2</sub> (E)	52	#4	5'-2"	⌊
U(E)	8	#5	4'-0"	⌊
U <sub>1</sub> (E)	4	#4	5'-0"	⌊

Note: See sheet 4 of 10 for additional details and Bill of Material.

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

PD-2136-0

**CEC** Cummins  
Engineering  
Corporation  
Civil and Structural Engineering

JOB = 2253.2	DESIGNED - TSH	REVISED -
FILE = 2253.2_super.dgn	CHECKED - AAN	REVISED -
DATE = 7/11/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

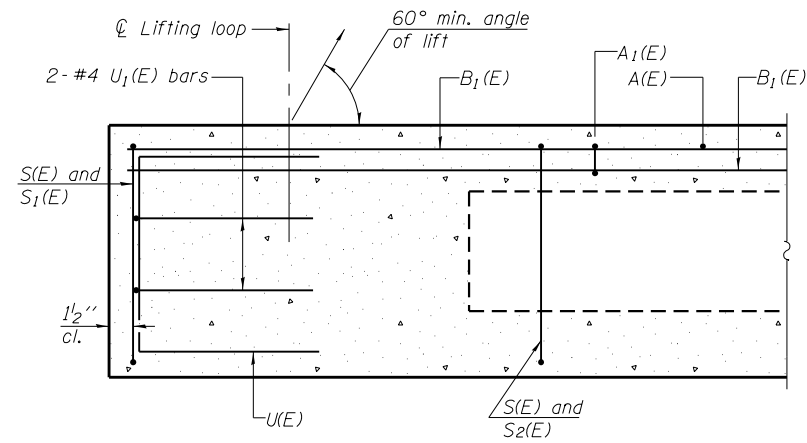
**DOUGLAS COUNTY**  
**SARGENT ROAD DISTRICT**  
**TR 218 IMPROVEMENTS**

**21" x 36" PPC DECK BEAM (SPANS 1 & 3)**  
**STRUCTURE NO. 021-4825**

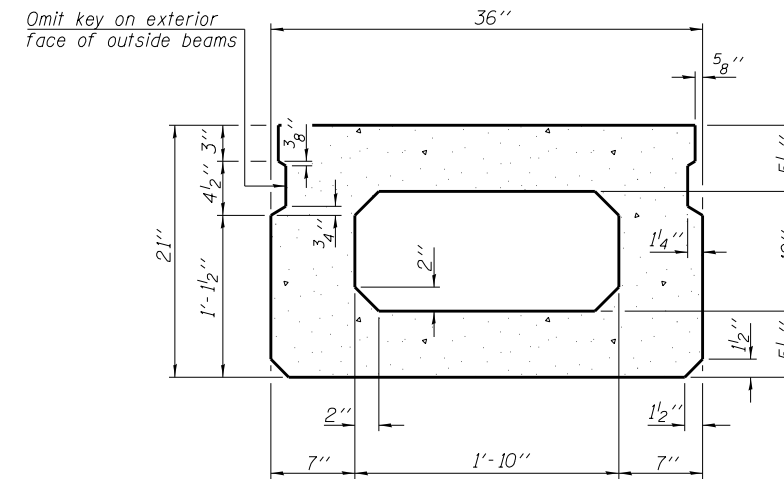
SHEET NO. 2 OF 10 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	12
SARGENT ROAD DISTRICT		CONTRACT NO. 91597		

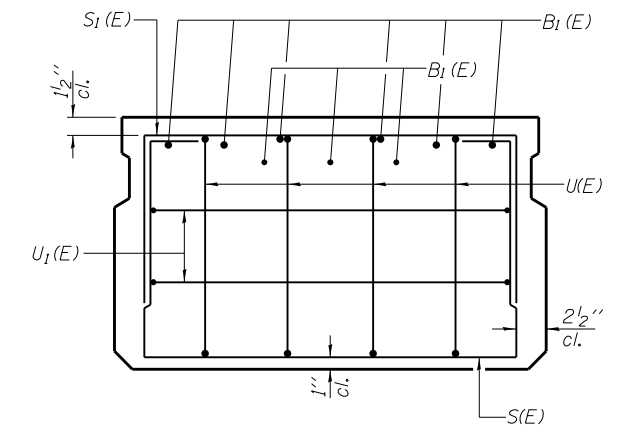
ILLINOIS FED. AID PROJECT



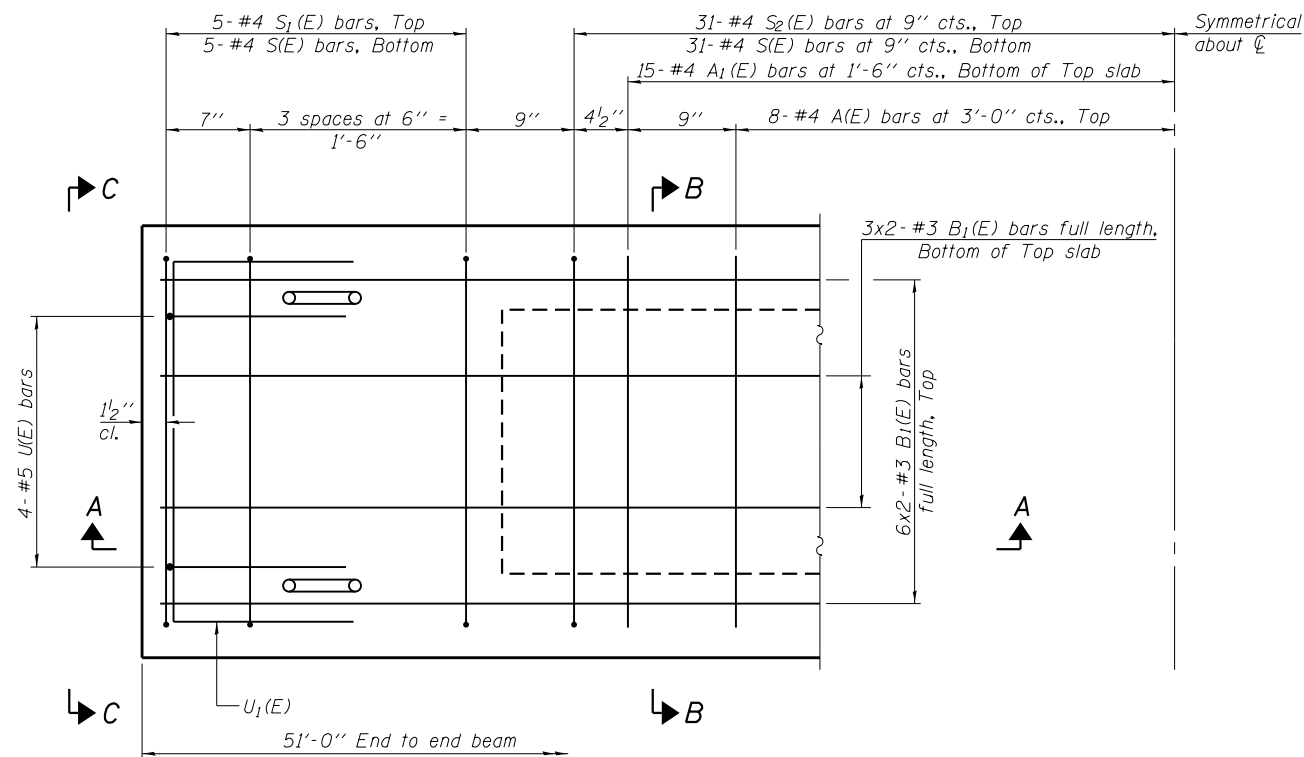
**SECTION A-A**



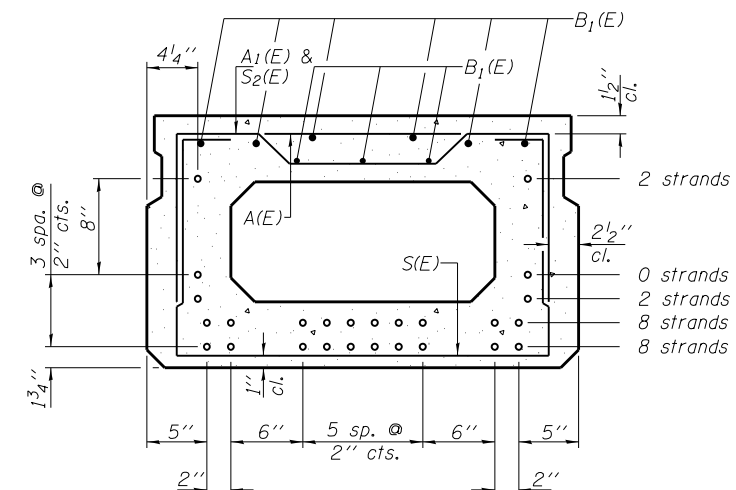
**SECTION B-B**  
(Showing dimensions)



**VIEW C-C**



**PLAN VIEW**



**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.

**BAR LIST**  
**ONE BEAM ONLY**

(For information only)

Bar	No.	Size	Length	Shape
A(E)	16	#4	2'-7"	—
A1(E)	30	#4	2'-10"	~
B1(E)	18	#3	26'-2"	—
S(E)	72	#4	6'-5"	⌊
S1(E)	10	#4	4'-11"	⌊
S2(E)	62	#4	5'-2"	⌊
U(E)	8	#5	4'-0"	⌊
U1(E)	4	#4	5'-0"	⌊

Note: See sheet 4 of 10 for additional details and Bill of Material.

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.

**MINIMUM BAR LAP**

#3 bar = 1'-6"

PD-2136-0

**CEC** Cummins  
Engineering  
Corporation  
Civil and Structural Engineering

JOB = 2253.2	DESIGNED - TSH	REVISED -
FILE = 2253.2_super.dgn	CHECKED - AAN	REVISED -
DATE = 7/11/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

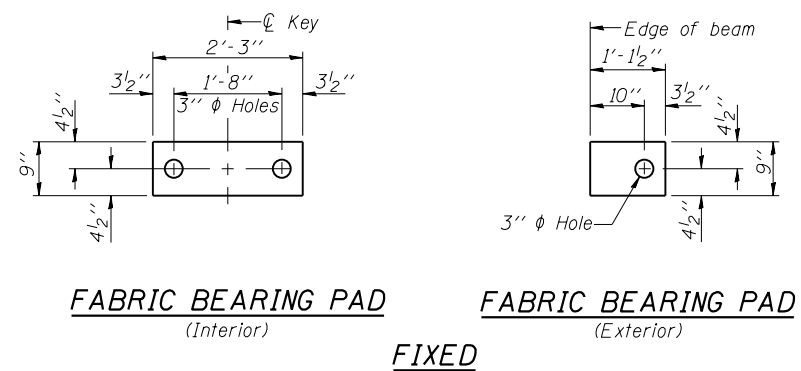
**DOUGLAS COUNTY**  
**SARGENT ROAD DISTRICT**  
**TR 218 IMPROVEMENTS**

**21" x 36" PPC DECK BEAM (SPAN 2)**  
**STRUCTURE NO. 021-4825**

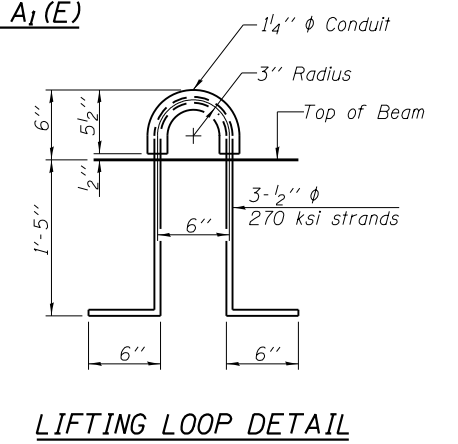
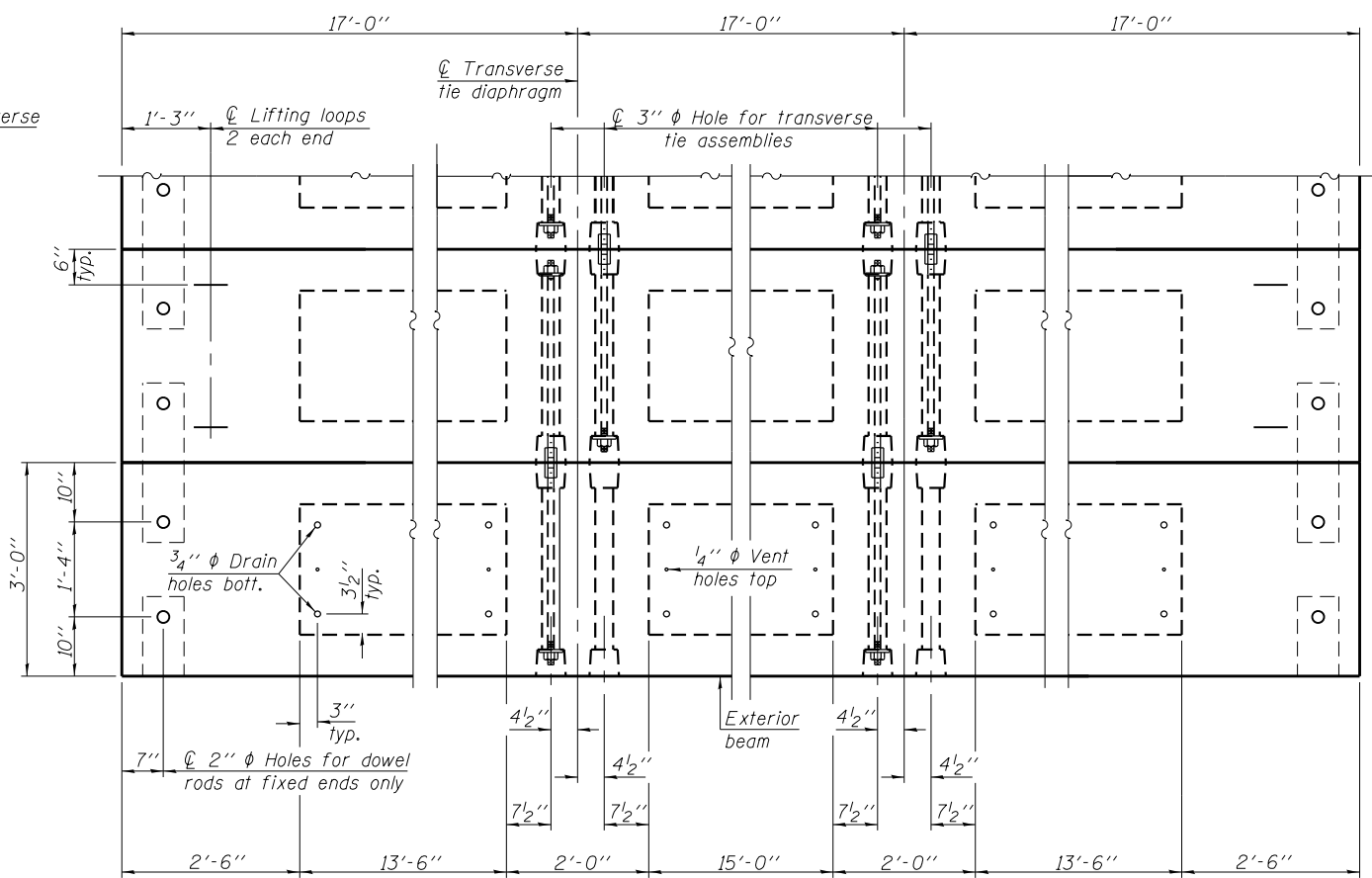
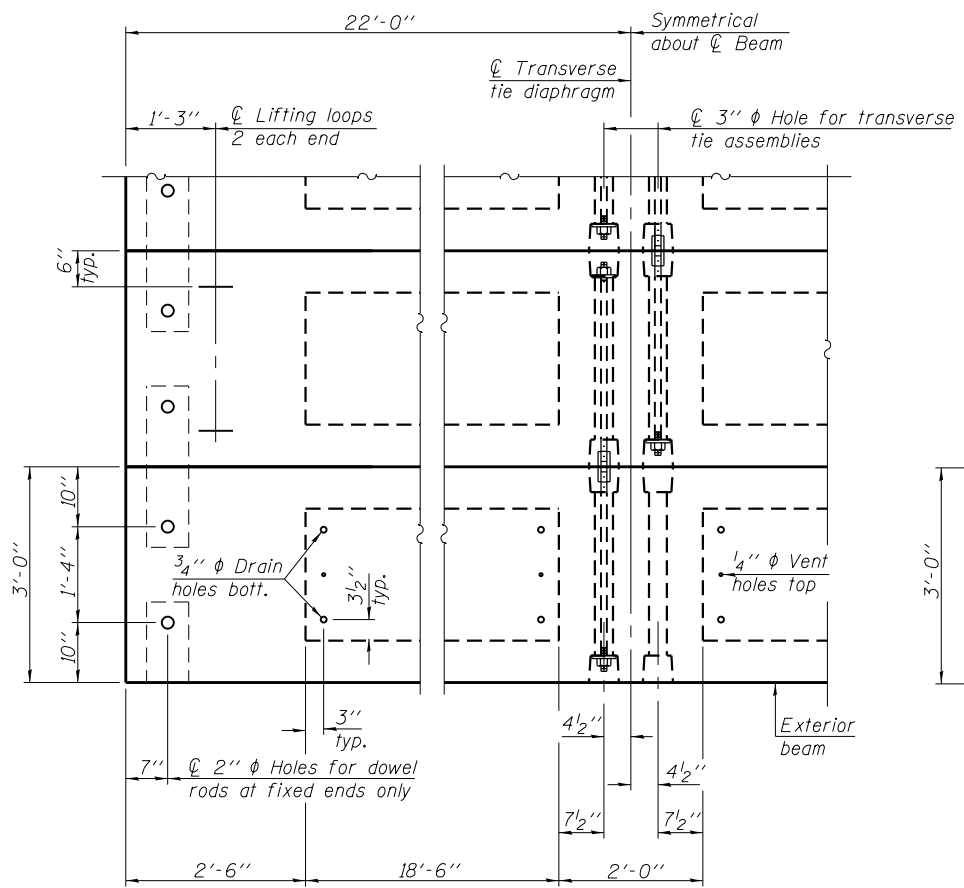
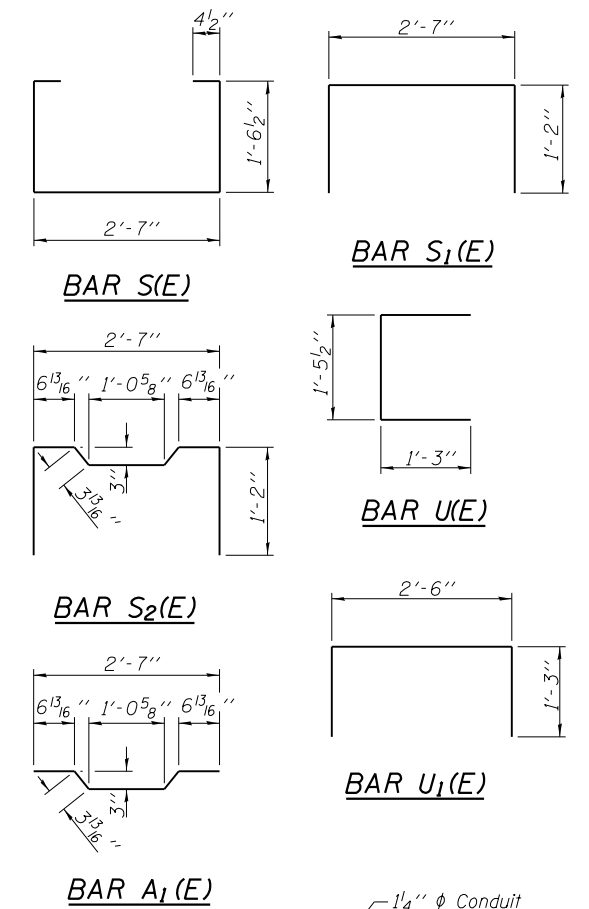
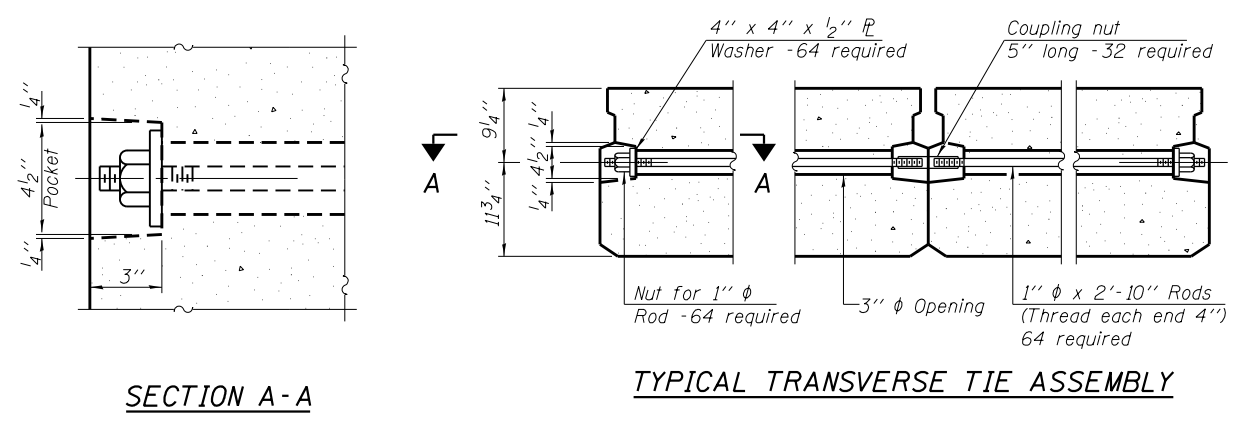
SHEET NO. 3 OF 10 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	13
SARGENT ROAD DISTRICT		CONTRACT NO. 91597		

ILLINOIS FED. AID PROJECT



Notes:  
 All bearing pads shall be 1" thick.



**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.

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	3753
---	---------	------

PD-2136-0D



JOB = 2253.2	DESIGNED - TSH	REVISED -
FILE = 2253.2_super.dgn	CHECKED - AAN	REVISED -
DATE = 7/11/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

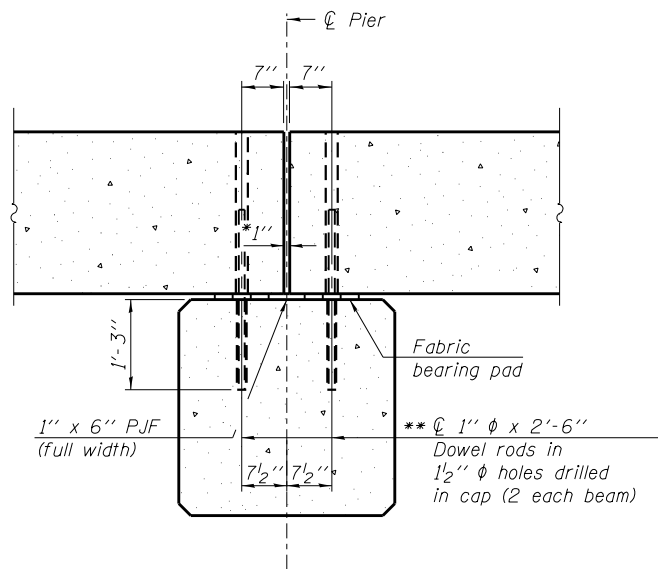
**DOUGLAS COUNTY  
 SARGENT ROAD DISTRICT  
 TR 218 IMPROVEMENTS**

**21" x 36" PPC DECK BEAM DETAILS, SPANS 1 - 3  
 STRUCTURE NO. 021-4825**

SHEET NO. 4 OF 10 SHEETS

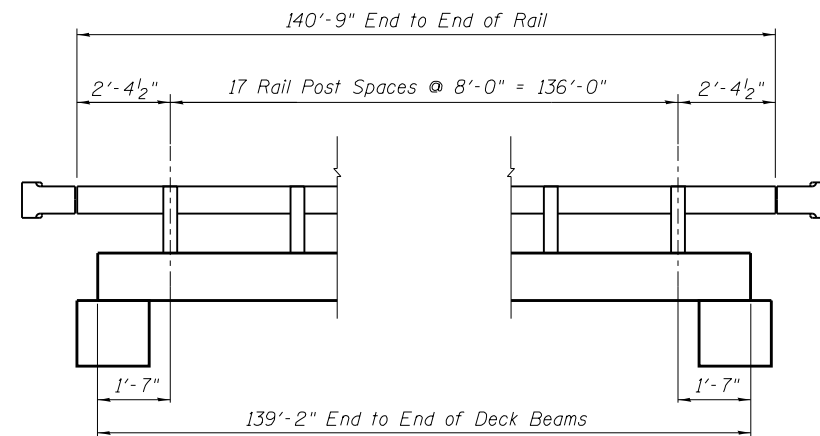
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	14
SARGENT ROAD DISTRICT		CONTRACT NO. 91597		

ILLINOIS FED. AID PROJECT

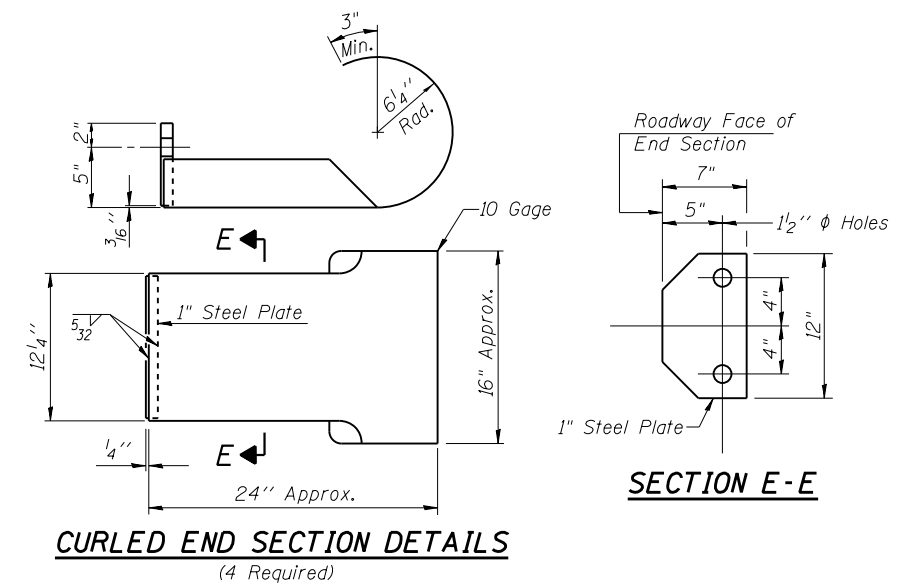


**SECTION THRU PIER**

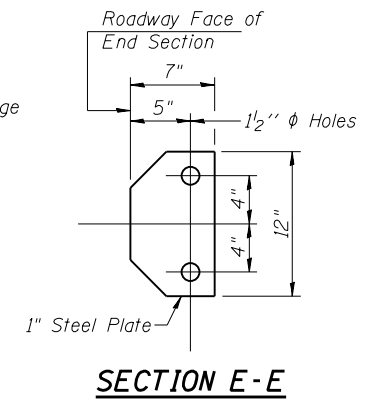
\* 1" dimension may vary plus or minus to accommodate tolerance in beam lengths. 1" joint shall be filled with non-shrink grout.



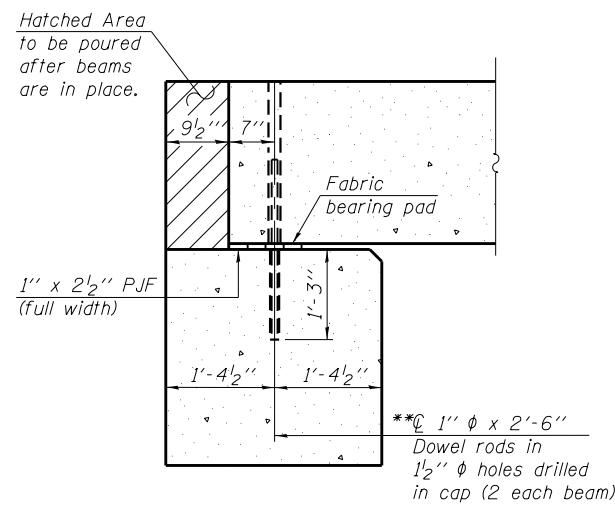
**RAIL ELEVATION**



**CURLED END SECTION DETAILS**  
(4 Required)

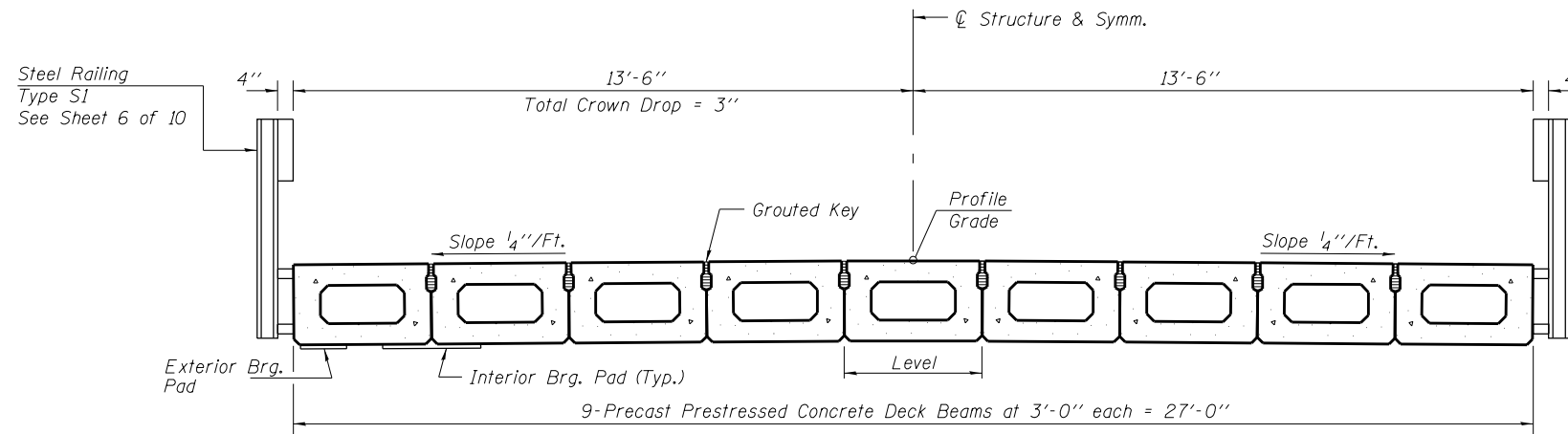


**SECTION E-E**



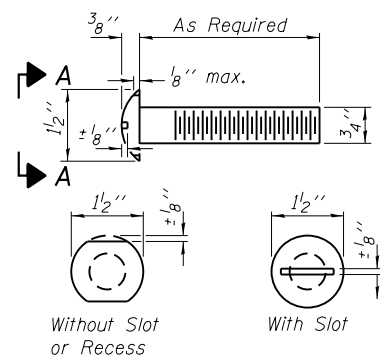
**SECTION THRU ABUT.**

\*\*After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

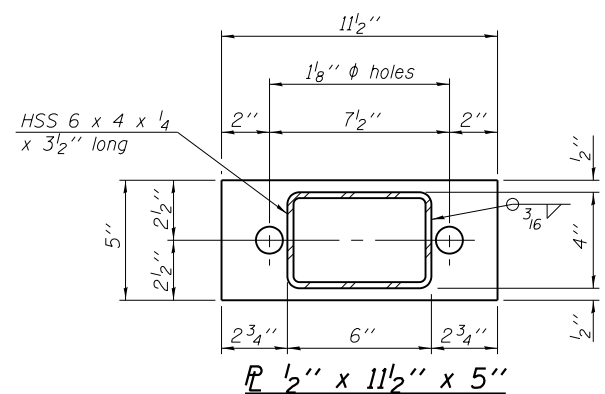


**CROSS SECTION**

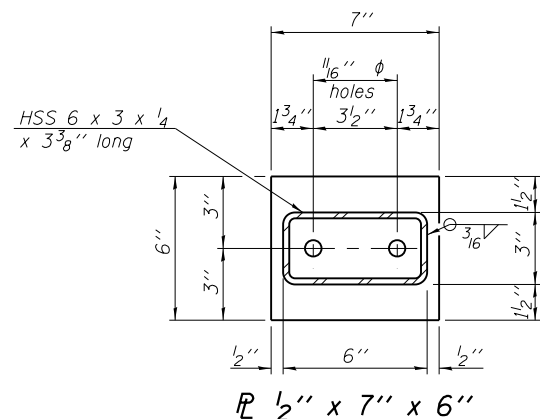
Notes:  
See Sheet 2, 3, & 4 of 10 for Superstructure  
See Sheet 6 of 10 for Steel Railing, Type S1



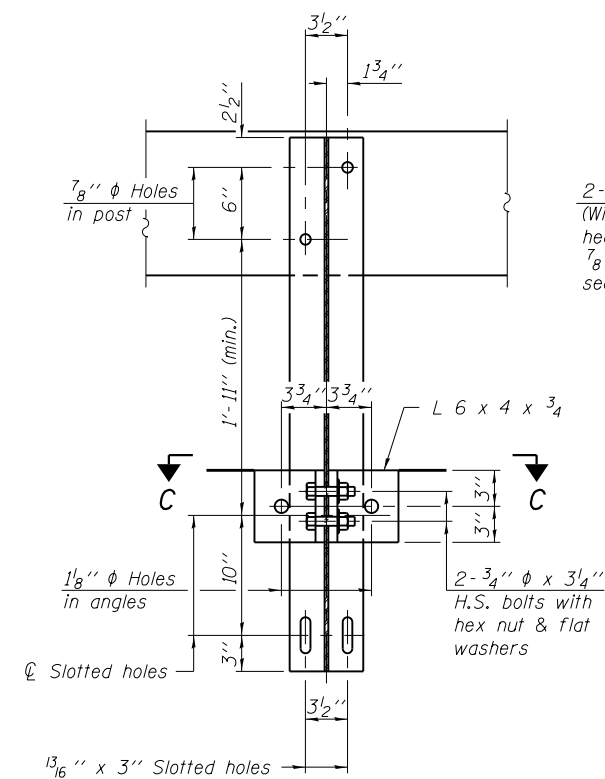
**VIEW A-A  
ROUND HEAD BOLT**



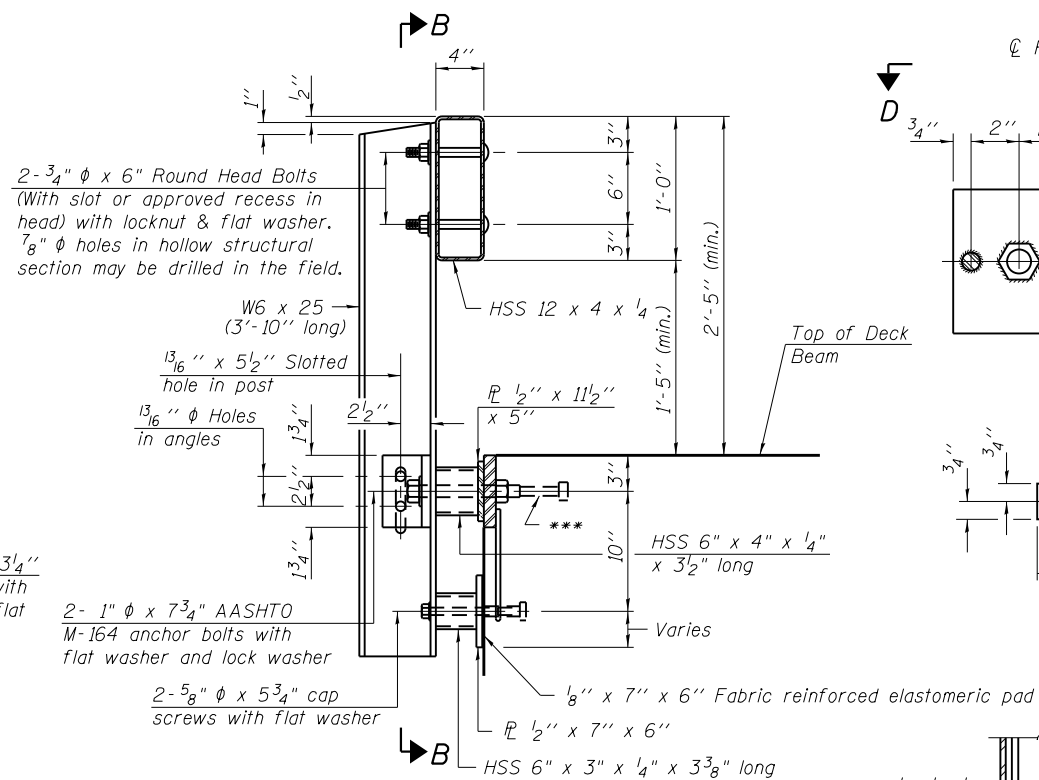
**SECTION B-B  
P 1/2" x 11 1/2" x 5"**



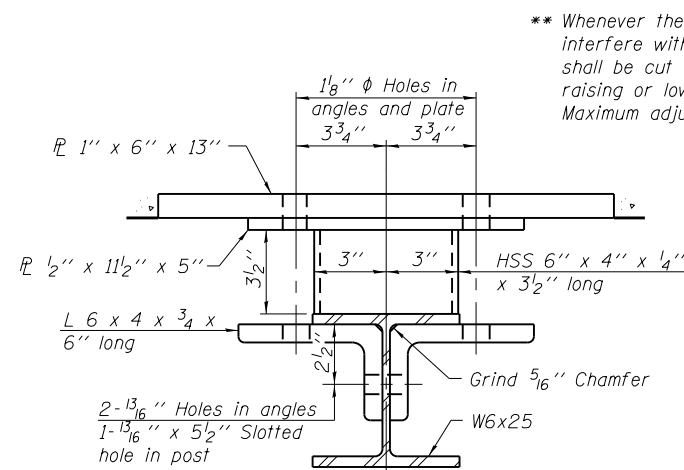
**SECTION AT RAILING POST  
P 1/2" x 7" x 6"**



**SECTION C-C**

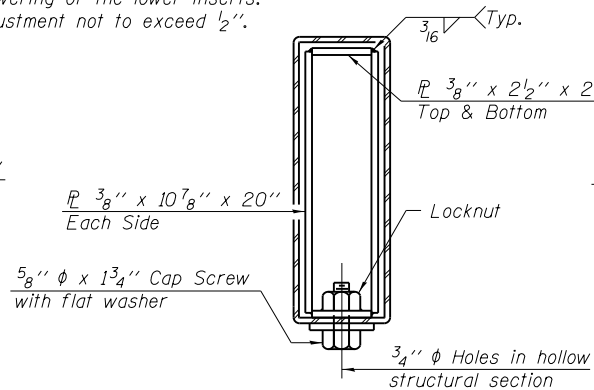


**SECTION AT RAIL SPLICING**

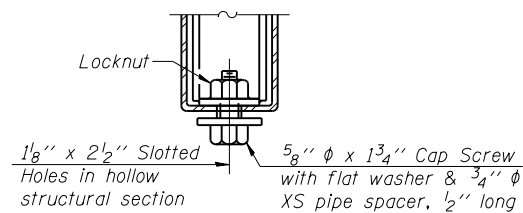


**SECTION C-C**

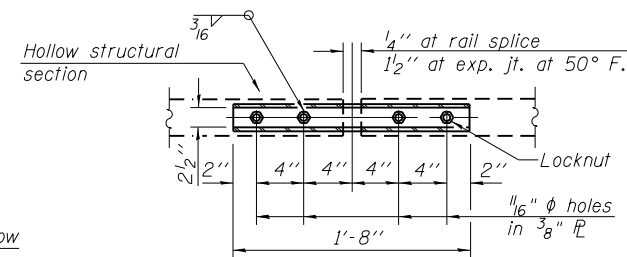
\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



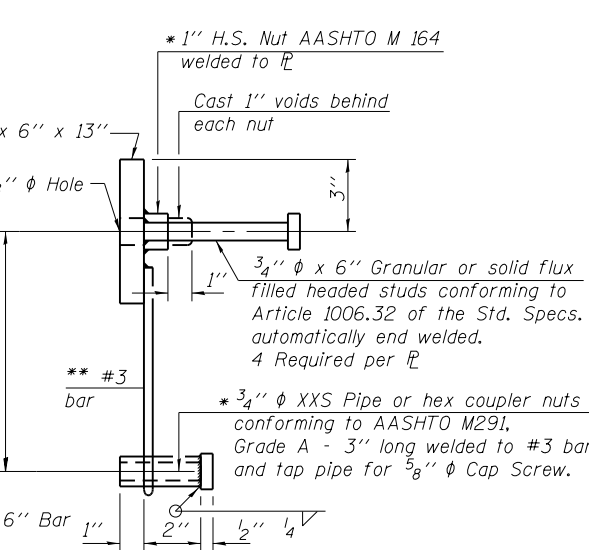
**SECTIONS AT RAIL SPLICING**



**RAIL SPLICE CONNECTION  
AT EXPANSION JT.**

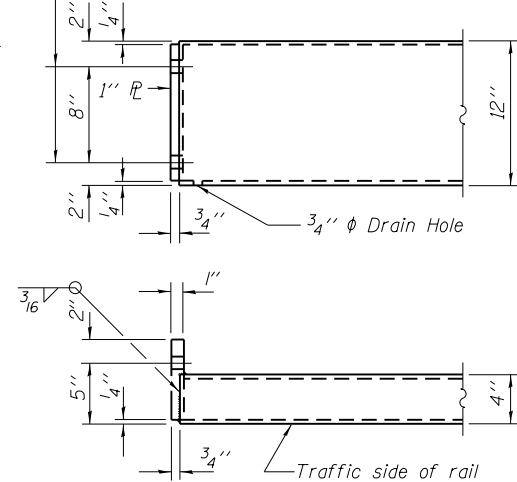


**PLAN-BOTT. SPLICE P  
TYPICAL**



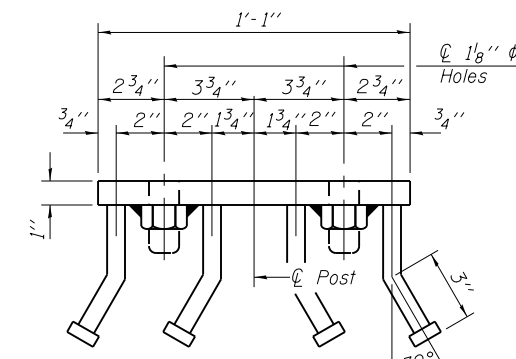
**ANCHOR DEVICE**

1 1/2" diameter holes for 1" diameter x 4" round head bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Hwy Std. 631026 or BLR 27-1.



**END OF RAIL DETAILS**

**Notes:**  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.  
\*\*\* 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.



**VIEW D-D**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	282

R-23A

7-1-10 (10'-9" Maximum Post Spacing)

**CEC**  
Civil and Structural Engineering

Cummins Engineering Corporation  
JOB = 2253.2  
FILE = 2253.2\_super.dgn  
DATE = 7/11/2022

DESIGNED - TSH  
CHECKED - AAN  
DRAWN - SJS  
CHECKED - MDC

REVISED -  
REVISED -  
REVISED -  
REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

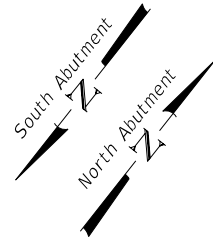
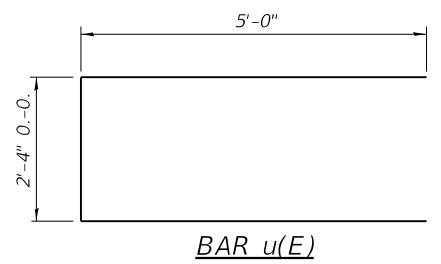
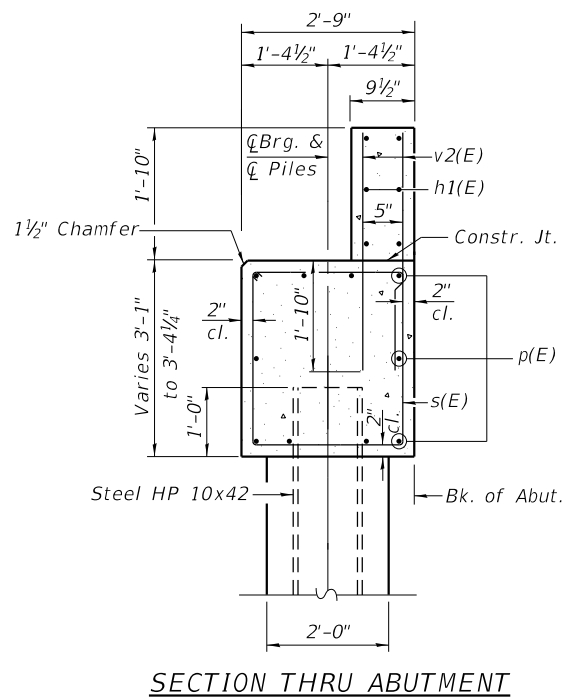
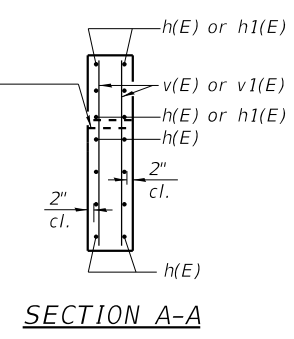
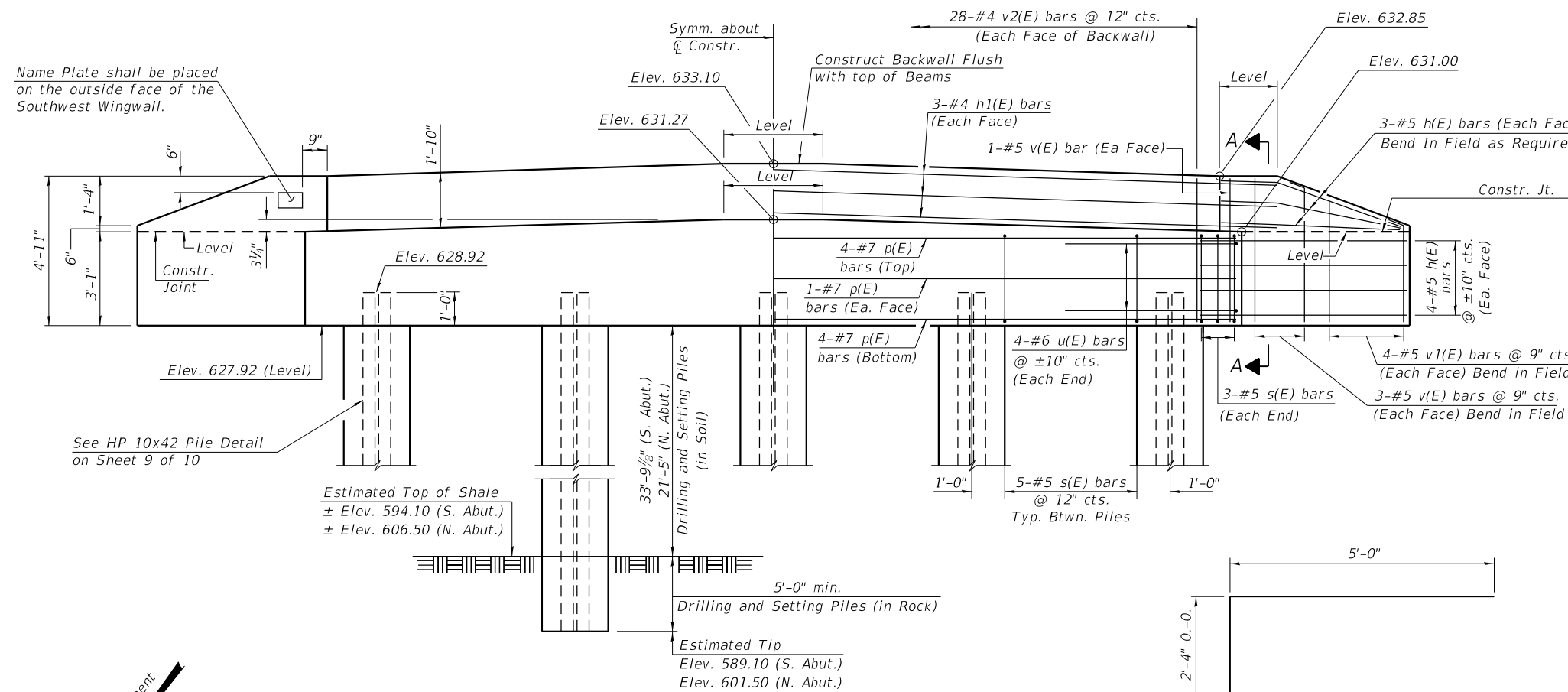
**STEEL RAILING, TYPE S-1  
STRUCTURE NO. 021-4825**

SHEET NO. 6 OF 10 SHEETS

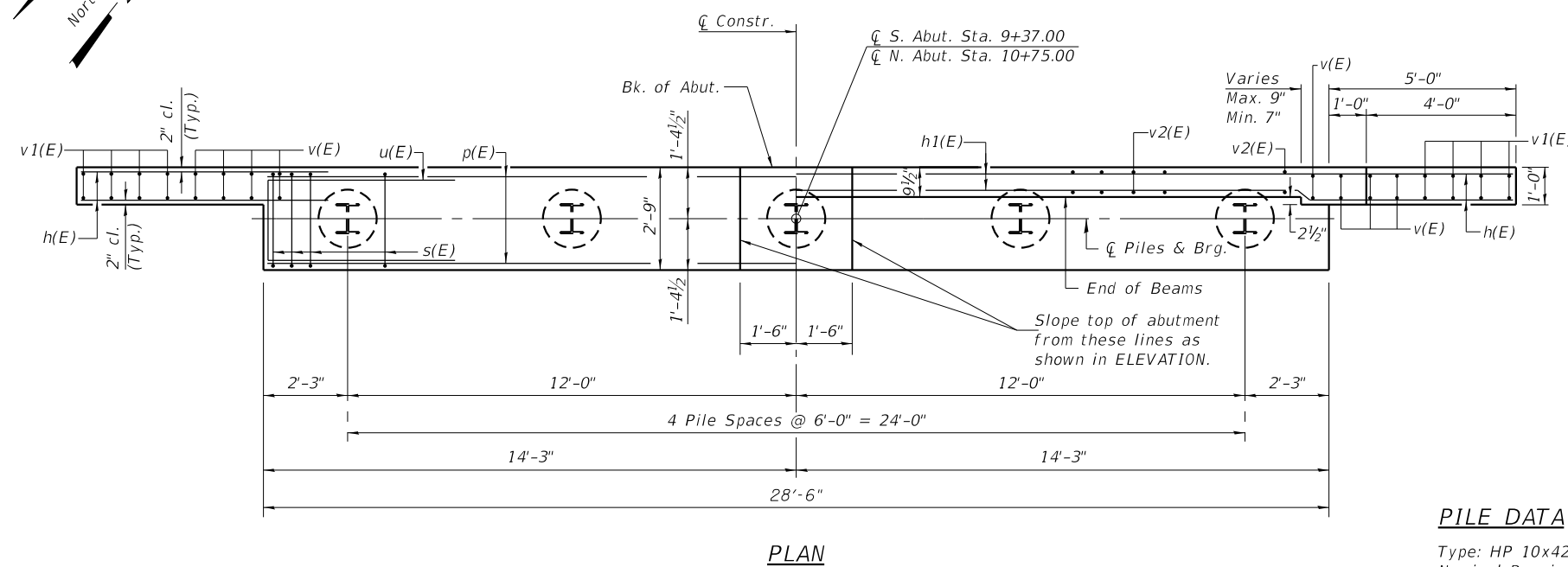
T.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	16
SARGENT ROAD DISTRICT		CONTRACT NO. 91597		

ILLINOIS FED. AID PROJECT





**ELEVATION**



**PLAN**

**PILE DATA**

Type: HP 10x42  
 Nominal Required Bearing: 335 kips (Set in Rock)  
 Factored Resistance Available: 184 kips  
 No. Required: 10 piles  
 Estimated Length: 40 ft. @ S. Abut.  
 27.5 ft. @ N. Abut.  
 Rock Socket Depth: 5'  
 Rock Socket Diameter: 24"

**BILL OF MATERIAL  
TWO ABUTMENTS**

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	56	#5	7'-4"	—
h1(E)	12	#4	30'-6"	—
p(E)	20	#7	28'-2"	—
s(E)	52	#5	11'-3"	□
u(E)	16	#6	12'-4"	—
v(E)	32	#5	4'-6"	—
v1(E)	32	#5	3'-10"	—
v2(E)	112	#4	3'-6"	—
		Concrete Structures	Cu. Yd.	24.6
		Reinforcement Bars, Epoxy Coated	Pound	3280
		Furnishing Steel Piles HP 10x42	Foot	338
		Structure Excavation	Cu. Yd.	60
		Drilling and Setting Piles (in Rock)	Cu. Ft.	157
		Drilling and Setting Piles (in Soil)	Cu. Ft.	868

Note:  
 After beams are in place and dowel rods grouted, the backwall and the portions of the wingwalls above the construction joint shall be poured.



JOB = 2253.2  
 FILE = 2253.2\_abuts.dgn  
 DATE = 7/11/2022

DESIGNED - TSH  
 CHECKED - AAN  
 DRAWN - SJS  
 CHECKED - MDC

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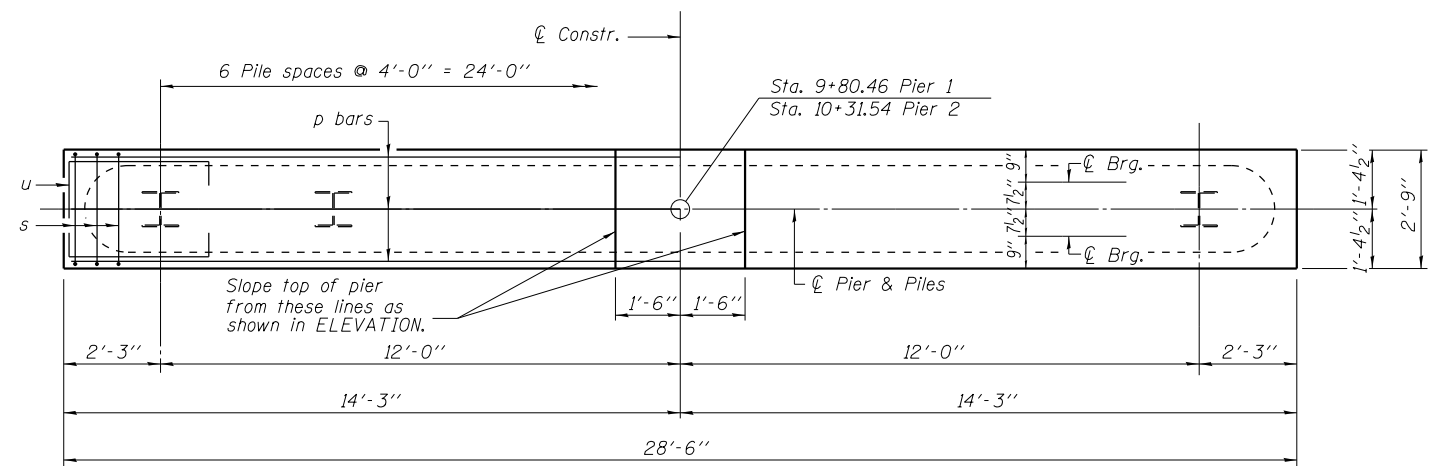
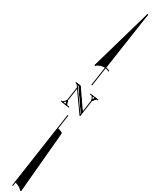
**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

**ABUTMENTS  
STRUCTURE NO. 021-4825**

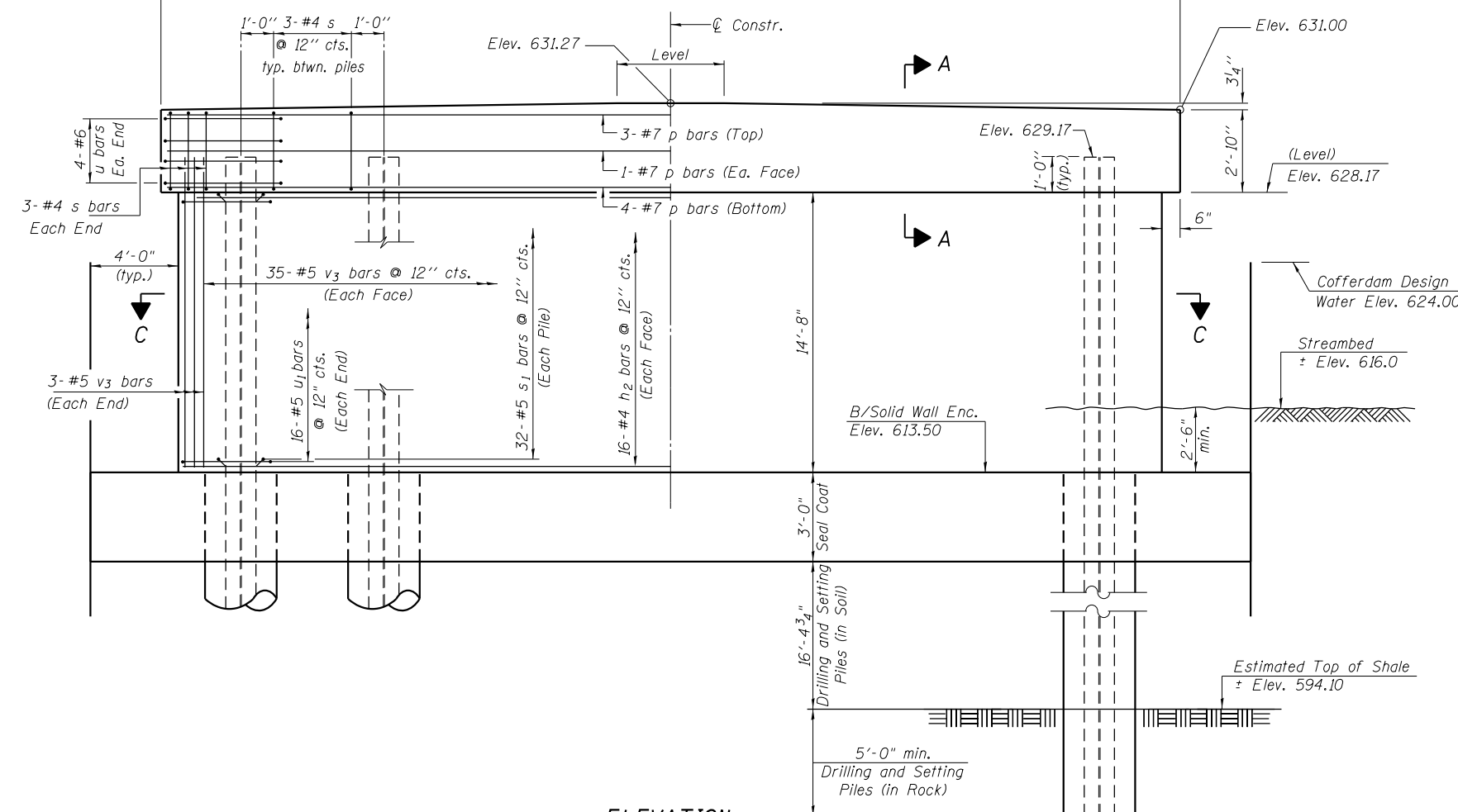
SHEET NO. 7 OF 10 SHEETS

T.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	17
SARGENT ROAD DISTRICT		CONTRACT NO. 91597		

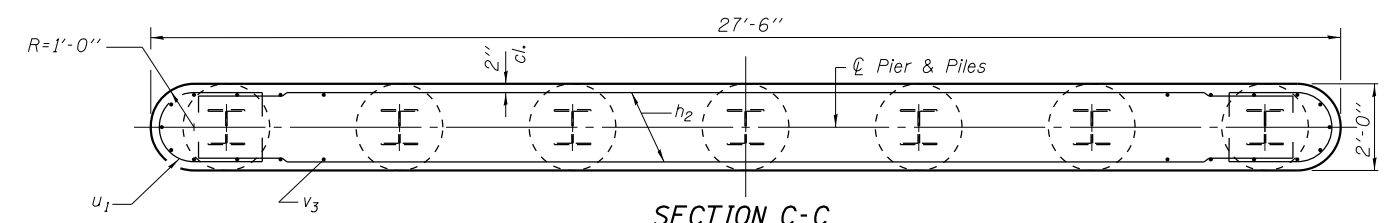
ILLINOIS FED. AID PROJECT



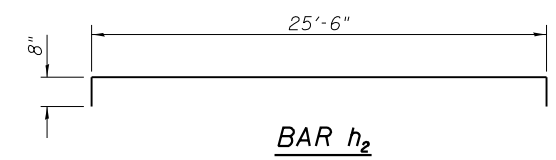
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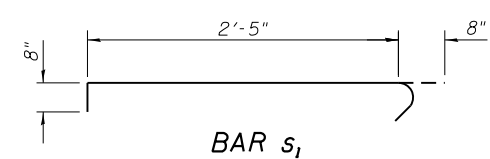
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(Looking North)



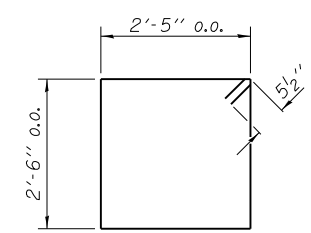
**SECTION C-C**



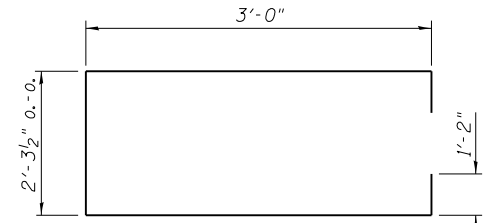
**BAR h<sub>2</sub>**



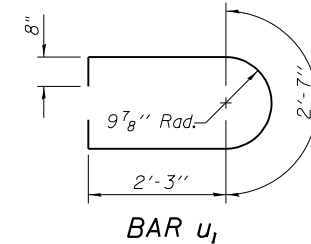
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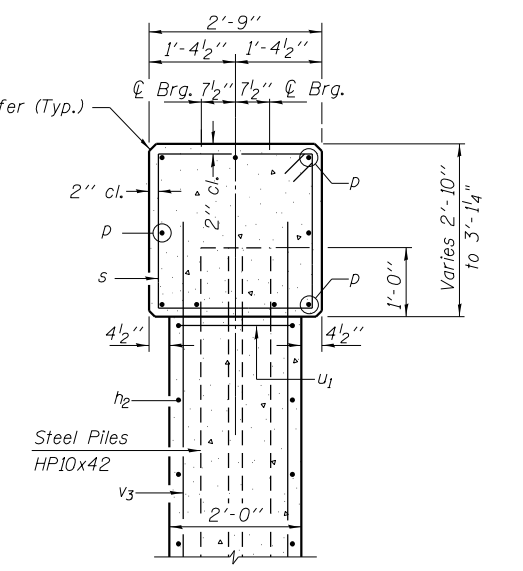
**BAR s**



**BAR u**



**BAR u<sub>1</sub>**



**SECTION A-A**

**BILL OF MATERIAL - 2 PIERS**

BAR	NO.	SIZE	LENGTH	SHAPE
h <sub>2</sub>	64	#5	26'-10"	U
p	18	#7	28'-2"	—
s	48	#4	10'-9"	□
s <sub>1</sub>	448	#4	3'-9"	U
u	16	#6	10'-8"	U
u <sub>1</sub>	64	#5	8'-5"	U
v <sub>3</sub>	116	#5	15'-6"	—
Concrete Structures			Cu. Yd.	76.1
Reinforcement Bars, Epoxy Coated			Pound	6990
Furnishing Steel Piles HP10x42			Foot	560
Drilling and Setting Piles (in Rock)			Cu. Ft.	220
Drilling and Setting Piles (in Soil)			Cu. Ft.	721
Cofferdam (Type 2)			Each	1
(Location 1)				
Cofferdam (Type 2)			Each	1
(Location 2)				
Cofferdam Excavation			Cu. Yd.	145
Seal Coat Concrete			Cu. Yd.	79.0

**PILE DATA**

Type: Steel HP10x42  
 Nominal Required Bearing: 335 kips (Set in Rock)  
 Factored Resistance Available: 184 kips  
 No. Required: 14 piles  
 Estimated Length: 40 ft. @ Pier 1  
 40 ft. @ Pier 2  
 Rock Socket Depth: 5'  
 Rock Socket Diameter: 24"

Notes:  
 If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.  
 All reinforcement bars shall be epoxy coated.



JOB = 2253.2  
 FILE = 2253.2\_piers.dgn  
 DATE = 7/11/2022

DESIGNED - TSH  
 CHECKED - AAN  
 DRAWN - SJS  
 CHECKED - MDC

REVISED -  
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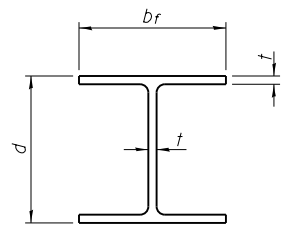
**DOUGLAS COUNTY**  
**SARGENT ROAD DISTRICT**  
**TR 218 IMPROVEMENTS**

**PIERS**  
**STRUCTURE NO. 021-4825**

SHEET NO. 8 OF 10 SHEETS

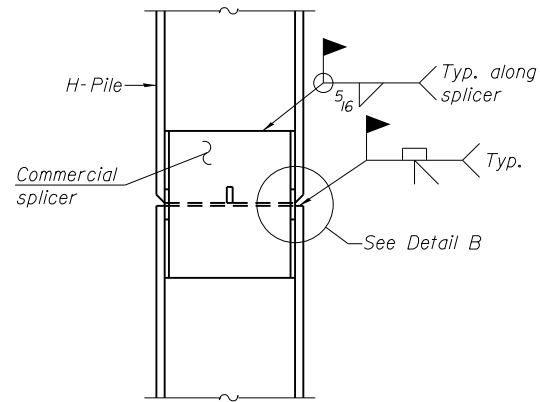
T.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	18
SARGENT ROAD DISTRICT			CONTRACT NO. 91597	

ILLINOIS FED. AID PROJECT

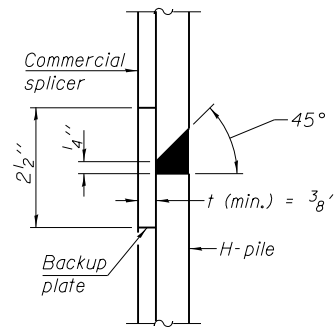


**STEEL PILE TABLE**

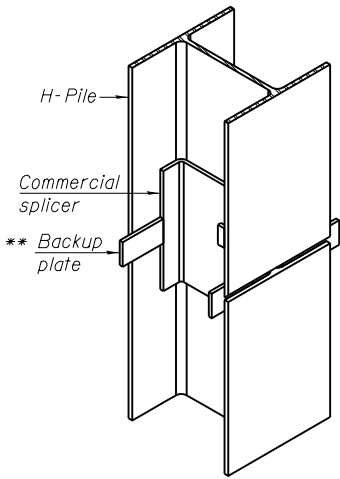
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	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"



**ELEVATION**

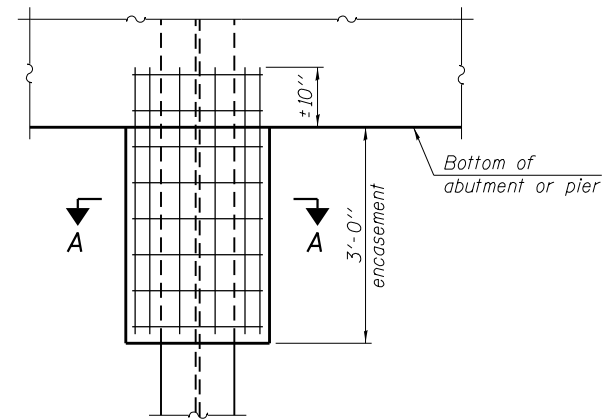


**DETAIL "B"**

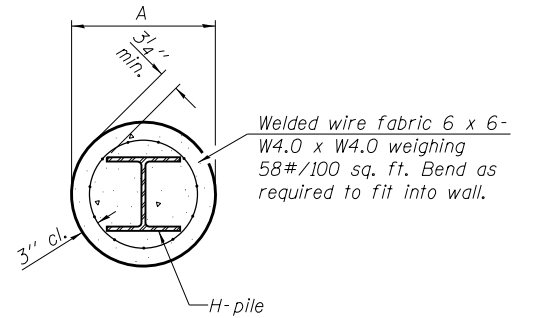


**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



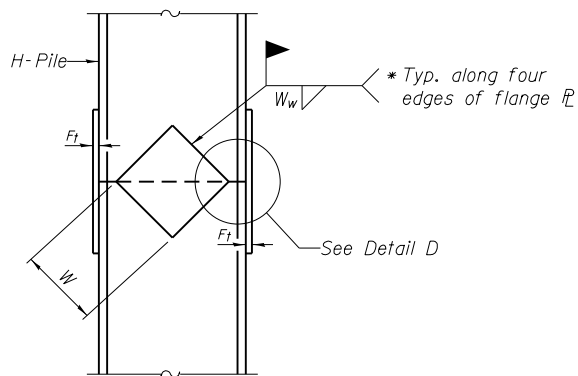
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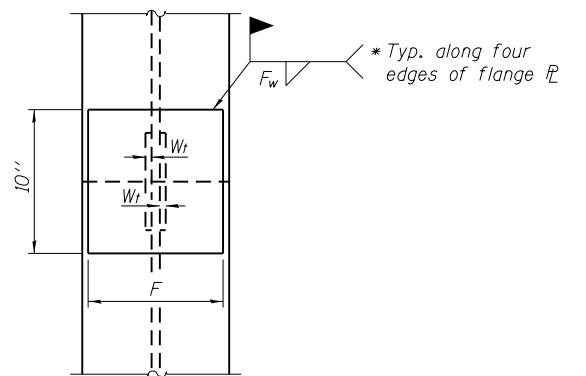
Note:  
Forms for encasement may be omitted when soil conditions permit.

**SECTION A-A**

**PILE ENCASEMENT**

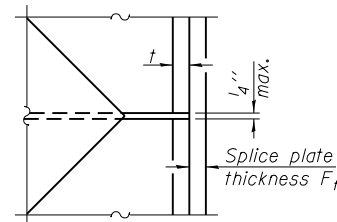


**ELEVATION**



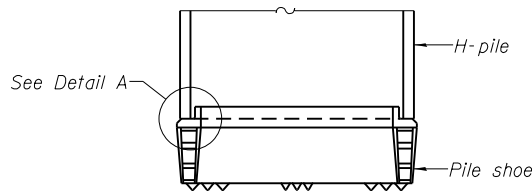
**END VIEW**

**DETAIL D**

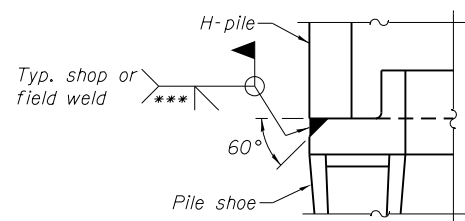


**WELDED PLATE FIELD SPLICE**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
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"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	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"

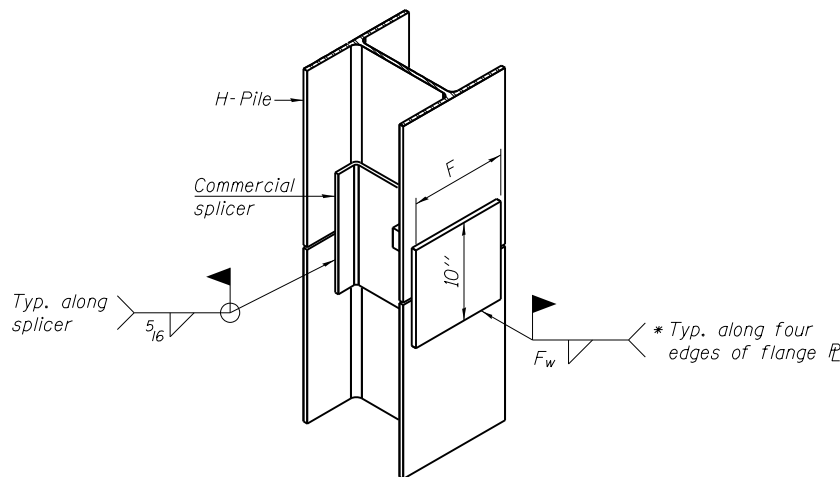


**ELEVATION**



**DETAIL A**

**H-PILE 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.

F-HP 7-1-10



JOB = 2253.2  
FILE = 2253.2\_sub.dgn  
DATE = 7/11/2022

DESIGNED - TSH  
CHECKED - AAN  
DRAWN - SJS  
CHECKED - MDC

REVISED -  
REVISED -  
REVISED -  
REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

**HP PILE DETAILS  
STRUCTURE NO. 021-4825**

SHEET NO. 9 OF 10 SHEETS

T.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	19
SARGENT ROAD DISTRICT			CONTRACT NO. 91597	

ILLINOIS FED. AID PROJECT

BRIDGE FOUNDATION SOIL BORING LOG

**MET Midwest Engineering and Testing, Inc. inc.**

Route: TR 218 over Brushy Fork  
 Section: 07-08119-01-EG  
 County: Douglas, (Sargent Township)  
 Structure No. Existing 021-4801 / Proposed 021-4825  
 Station: Sta: 8+65  
 Offset: At Centerline

Boring: B-1 (SW)  
 Page: Page 1 of 1  
 Date of Boring: February 4, 2010  
 Drilled By: Zach Wilcoxon  
 Checked By: Daniel E. Tappendorf, P.E.  
 MET Project No: 1-03009

Surface Water Elevation: 619.0 ft. Ground Water Elevation: when drilling: 624.1 ft. at completion: 625.1 ft.	DEPTH (ft.)	BLOW COUNTS (6")	QU (tsf)	MC (%)	Sec: 11, T15N, R10E 3rd PM	DEPTH (ft.)	BLOW COUNTS (6")	QU (tsf)	MC (%)
Ground Surface Elevation: 637.1 ft.									
3.5" Asphalt				6					
Brown silty CLAY (CL)	3	3	2.8P	17	Brown clayey SILT (ML)	30	51	4.5P	9
EL: 632.6 ft.									
5	2	2	1.8P	19					
Dark gray silty CLAY (CL)	2	2	1.3P	25					
EL: 625.1 ft.									
10	2	3	0.6	24	Gray silty CLAY with sand and small gravel (CL) Till	35	33	6.8S	14
Gray clayey SAND (SC)	1	2	-	22					
EL: 622.6 ft.									
15	8	13	5.6S	8					
Gray silty CLAY with sand and small gravel (CL) Till	16	44	11.2S	10	Gray weathered SHALE	45	50/4"	-	13
EL: 622.6 ft.									
20	17	52	11.6S	9					
EL: 615.1 ft.									
25	17	33	3.2S	17					
EL: 585.6 ft.									
End of Boring at 51.5 ft.									

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample  
 MC - Moisture Content - Percent of dry weight  
 Qu - Unconfined Compressive Strength- tons per square foot (tsf)  
 Type Failure  
 Qu test  
 B-Bulge  
 S-Shear  
 P-Penetrometer

BRIDGE FOUNDATION SOIL BORING LOG

**MET Midwest Engineering and Testing, Inc. inc.**

Route: TR 218 over Brushy Fork  
 Section: 07-08119-01-EG  
 County: Douglas, (Sargent Township)  
 Structure No. Existing 021-4801 / Proposed 021-4825  
 Station: Sta: 10+70  
 Offset: 10 ft. right

Boring: B-2 (NE)  
 Page: Page 1 of 1  
 Date of Boring: February 4, 2010  
 Drilled By: Zach Wilcoxon  
 Checked By: Daniel E. Tappendorf, P.E.  
 MET Project No: 1-03009

Surface Water Elevation: 619.0 ft. Ground Water Elevation: when drilling: 613.0 ft. at completion: Dry	DEPTH (ft.)	BLOW COUNTS (6")	QU (tsf)	MC (%)	Sec: 11, T15N, R10E 3rd PM	DEPTH (ft.)	BLOW COUNTS (6")	QU (tsf)	MC (%)
Ground Surface Elevation: 633.0 ft.									
10" Dark brown silty CLAY (OH) Topsoil				89	Gray weathered SHALE				
Brown silty CLAY (CL)	3	4	3.0B	16	Drilled like limestone ledge EL: 603 ft. 30				
EL: 628.5 ft.					Auger refusal at 30 ft.				
5	5	8	-	-					
No Recovery at 5 ft.	8	12	-	-					
Brown and gray clayey SILT (ML)	3	5	3.6B	28					
EL: 623.5 ft.									
10	2	6	5.0B	13					
Brown silty CLAY with sand and small gravel (CL) Till	12	20	8.0S	11					
EL: 615 ft.									
15	21	50/5"	4.5P	7					
Gray silty CLAY with sand and small gravel (CL) Till	22	48	4.5P	7					
EL: 615 ft.									
20	25	44	4.5P	6					
EL: 615 ft.									
25	25	44	4.5P	6					
EL: 615 ft.									

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample  
 MC - Moisture Content - Percent of dry weight  
 Qu - Unconfined Compressive Strength- tons per square foot (tsf)  
 Type Failure  
 Qu test  
 B-Bulge  
 S-Shear  
 P-Penetrometer



JOB = 2253.2	DESIGNED - TSH	REVISED -
FILE = 2253.2_Borings.dgn	CHECKED - AAN	REVISED -
DATE = 7/11/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

**DOUGLAS COUNTY  
 SARGENT ROAD DISTRICT  
 TR 218 IMPROVEMENTS**

**SOIL BORING LOGS  
 STRUCTURE NO. 021-4825**

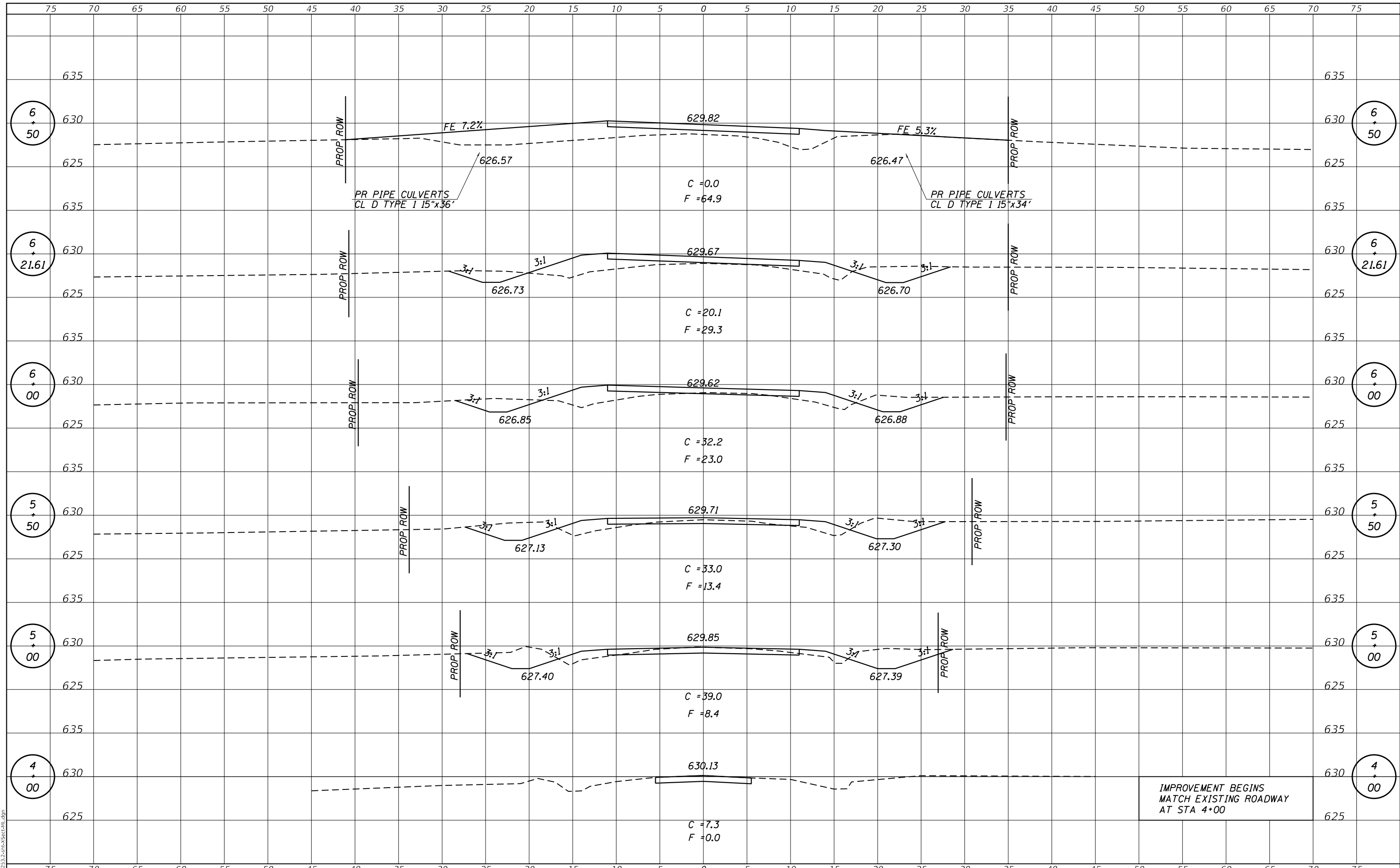
SHEET NO. 10 OF 10 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	20
SARGENT ROAD DISTRICT			CONTRACT NO. 91597	

ILLINOIS FED. AID PROJECT

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

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



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**DOUGLAS COUNTY  
 SARGENT ROAD DISTRICT  
 TR 218 IMPROVEMENTS**

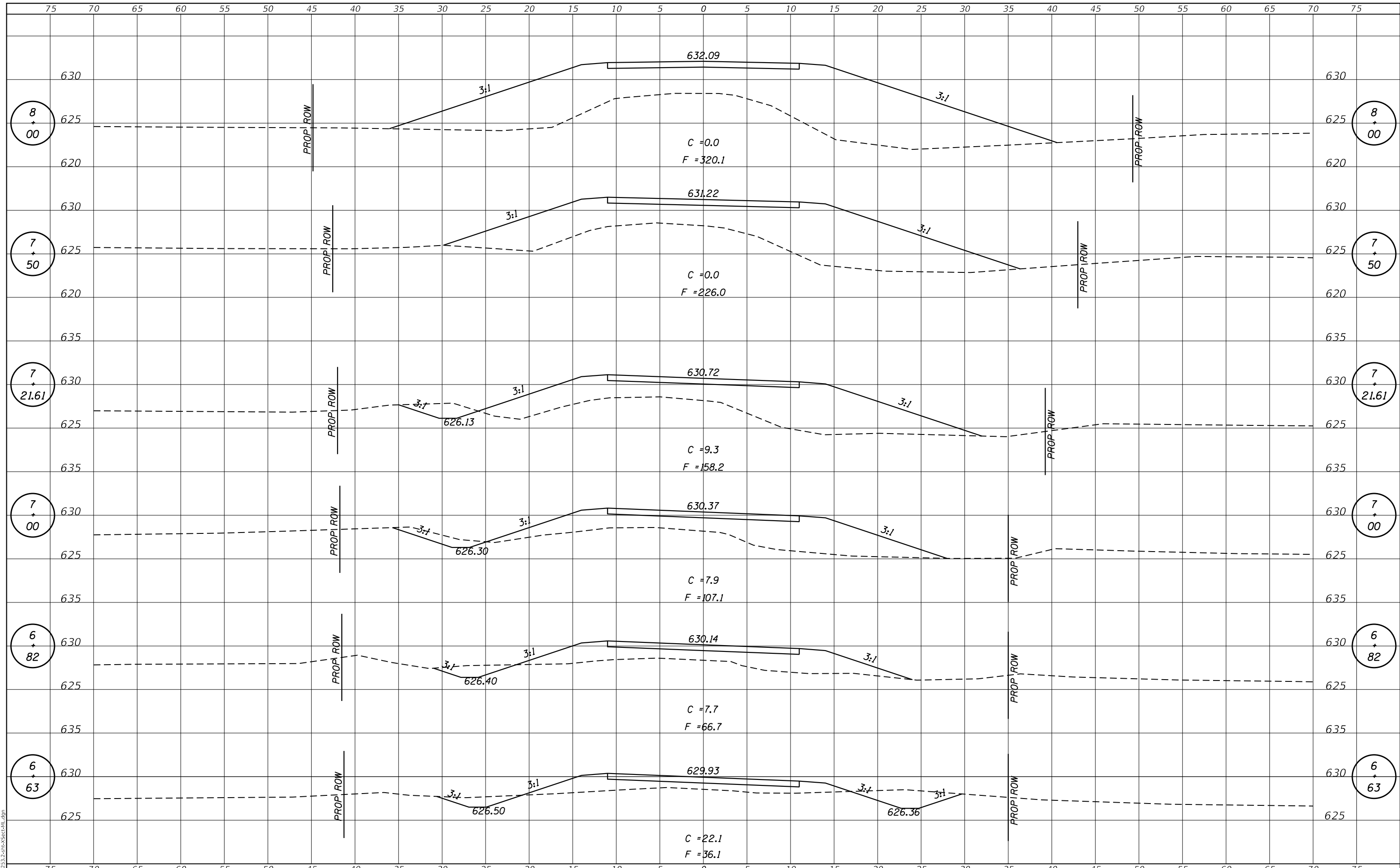
**CROSS SECTIONS  
 TR 218 IMPROVEMENTS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	21
			CONTRACT NO. 91597	
		ILLINOIS	FED. AID PROJECT	

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

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



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**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

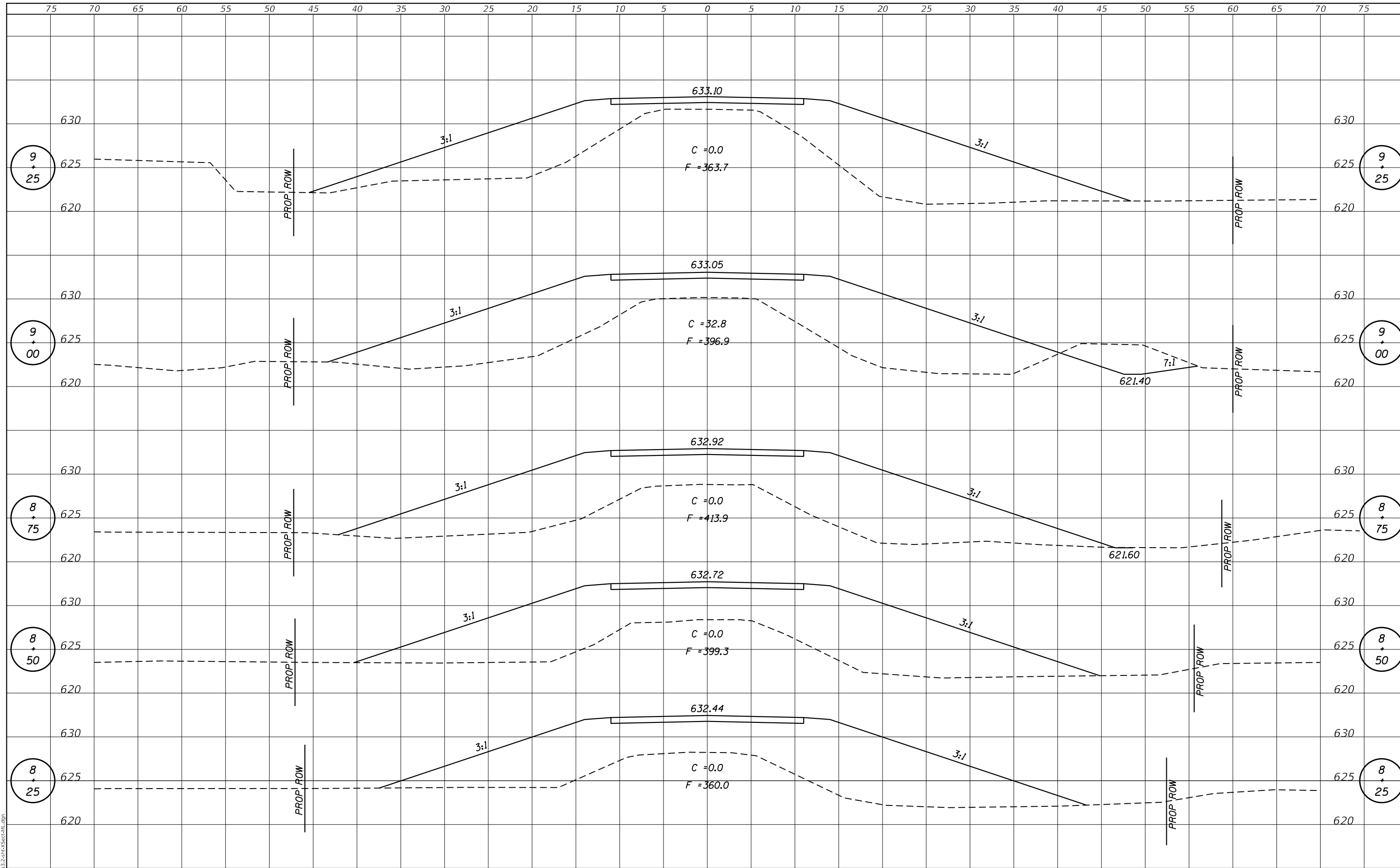
**CROSS SECTIONS  
TR 218 IMPROVEMENTS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	22
CONTRACT NO. 91597				
ILLINOIS FED. AID PROJECT				

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

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



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**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

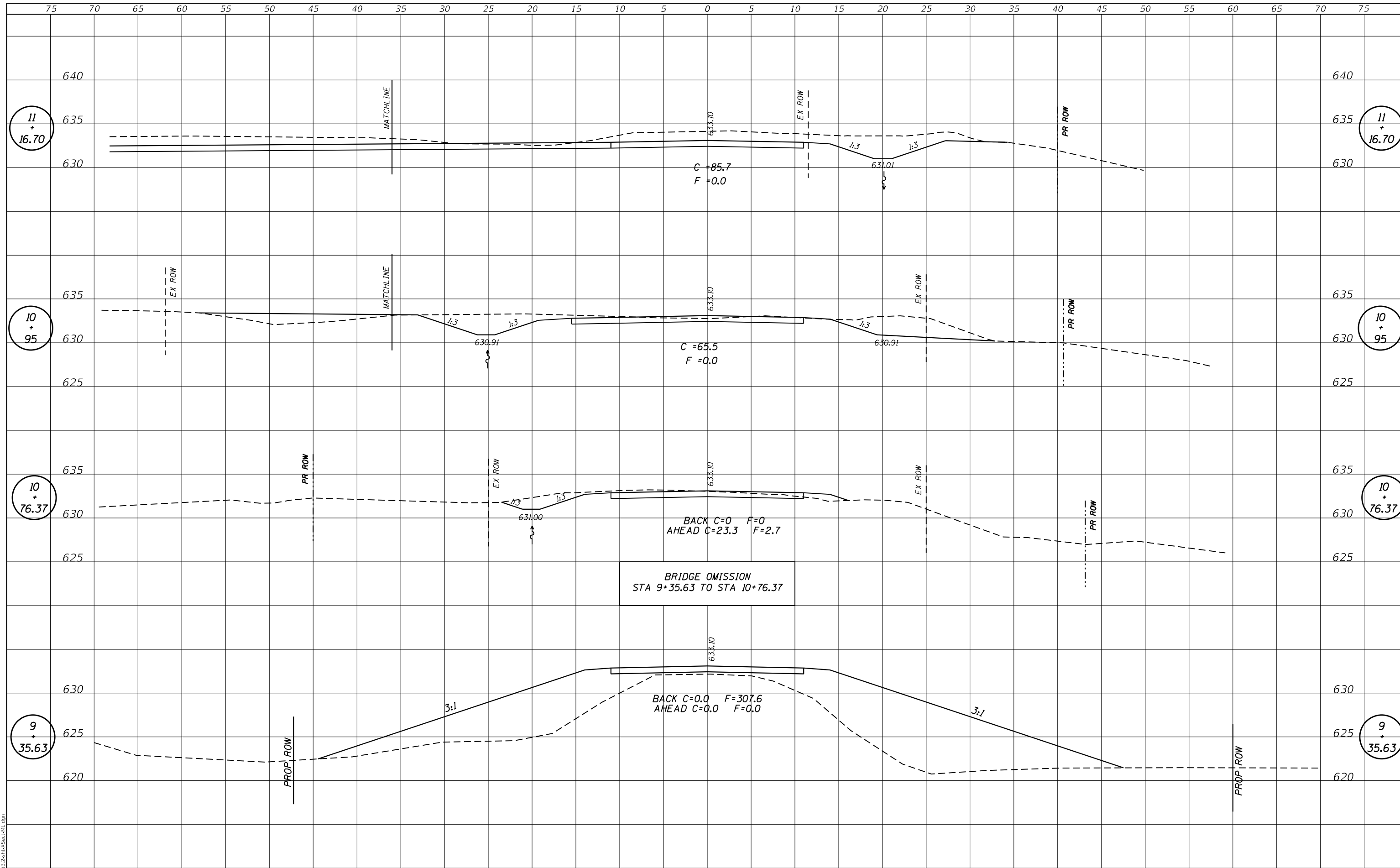
**CROSS SECTIONS  
TR 218 IMPROVEMENTS**

SCALE: 1" = 5' SHEET OF SHEETS STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	23
CONTRACT NO. 91597				
ILLINOIS		FED. AID PROJECT		

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

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



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**DOUGLAS COUNTY  
 SARGENT ROAD DISTRICT  
 TR 218 IMPROVEMENTS**

SCALE: 1" = 5'		SHEET OF SHEETS		STA. TO STA.	
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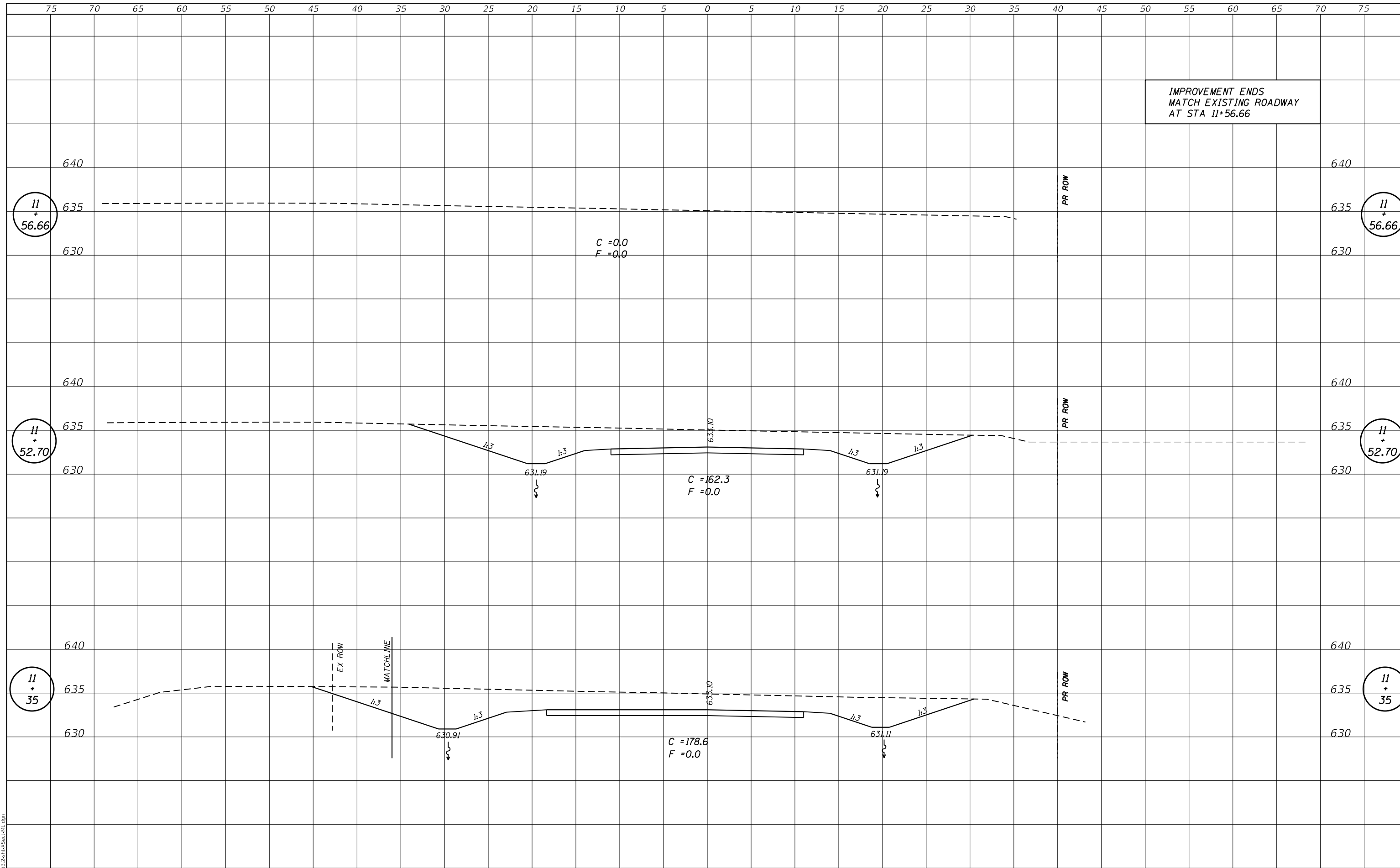
**CROSS SECTIONS  
 TR 218 IMPROVEMENTS**

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	24
			CONTRACT NO. 91597	
		ILLINOIS	FED. AID PROJECT	



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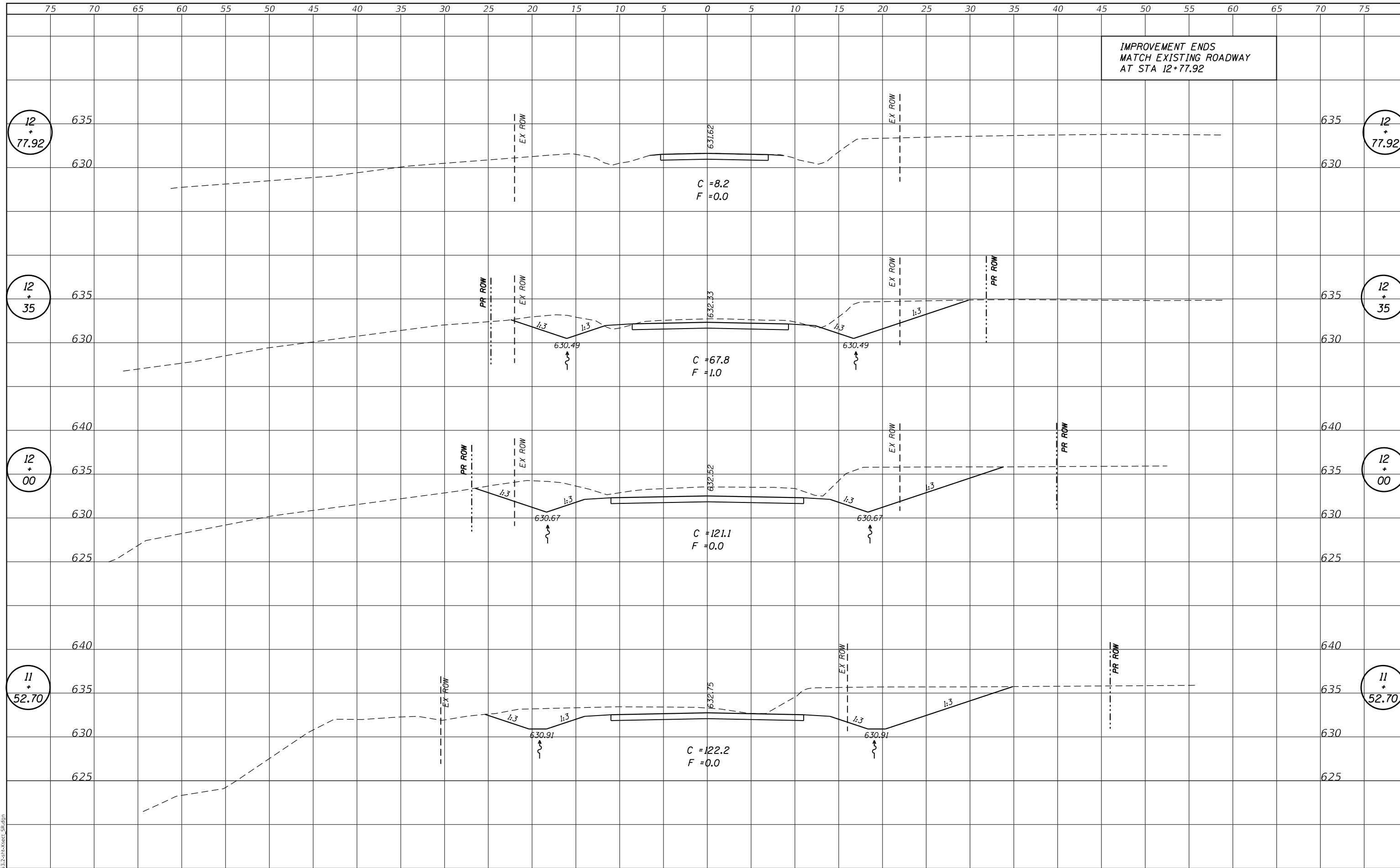
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BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



IMPROVEMENT ENDS  
MATCH EXISTING ROADWAY  
AT STA 11+56.66

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



IMPROVEMENT ENDS  
MATCH EXISTING ROADWAY  
AT STA 12+77.92

MODEL: Defaulr  
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USER NAME = default	DESIGNED - TEC	REVISED -
	DRAWN - TEC	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - CFG	REVISED -
PLOT DATE = 7/11/2022	DATE - 7/8/2022	REVISED -

**DOUGLAS COUNTY  
SARGENT ROAD DISTRICT  
TR 218 IMPROVEMENTS**

**CROSS SECTIONS  
TR 218 IMPROVEMENTS**

SCALE: 1" = 5' SHEET OF SHEETS STA. 11+52.70 TO STA. 12+77.92

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
218	07-08119-01-BR	DOUGLAS	26	26
CONTRACT NO. 91597				
ILLINOIS FED. AID PROJECT				