


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
420001-10	PAVEMENT JOINTS
 420101-07	24' JOINTED PCC PAVEMENT
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-04	METAL FLARED END SECTIONS FOR PIPE CULVERTS
602301-04	INLET TYPE A
602306-03	INLET TYPE B
602401-07	PRECAST MANHOLE TYPE A 4' DIAMETER
602701-02	MANHOLE STEPS
604006-05	FRAME AND GRATE TYPE 3
604036-03	GRATE TYPE 8
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
664001-02	CHAIN LINK FENCE
665001-02	WOVEN WIRE FENCE
666001-01	RIGHT OF WAY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THEN 45 MPH
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
782001-01	CURB REFLECTORS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES - CONSTRUCTION ON RURAL LOCAL HIGHWAYS

APPLICATION RATES

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

TEMPORARY SEEDING	100 LBS/ACRE (2 APP)
RIPRAP	1.50 TON/CU YD
ROCK FILL - EMBANKMENT	1.89 TON/CU YD
AGGREGATE DITCH CHECK	2.07 TON/CU YD
AGGREGATE FOR TEMPORARY ACCESS	2.03 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.25 LBS/SO FT (ON AGG)
BITUMINOUS MATERIALS (TACK COAT)	0.025 LBS/SO FT (BETWEEN LIFTS)

HMA MIX DESIGN


MIX DESIGN INFORMATION (REAS BRIDGE ROAD)			
MIXTURE USE(S)	• 9" HMA BINDER	• 2" HMA SURFACE	6" HMA SHOULDERS
PG	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 % @ Ndes = 70	4.0 % @ Ndes = 70	4.0 % @ Ndes = 30
MIX COMP (GRADATION)	IL 19.0	IL 9.5	IL 19.0L
FRICTION AGGREGATE	MIX C	MIX C	

• PAID FOR AS HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 11"

MIX DESIGN INFORMATION (SANGAMON ROAD)		
MIXTURE USE(S)	• 4" HMA BINDER	• 2" HMA SURFACE
PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 % @ Ndes = 70	4.0 % @ Ndes = 70
MIX COMP (GRADATION)	IL 19.0	IL 9.5
FRICTION AGGREGATE	MIX C	MIX C

• PAID FOR AS HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 6"

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USER NAME =	DESIGNED - TES	REVISED -  2/24/22
	DRAWN - RLK	REVISED -
PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

**HIGHWAY STANDARDS & APPLICATION RATES
CH 24 (REAS BRIDGE ROAD)**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	3
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	3890	3890		
Δ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1117	1117		
Δ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	3	3		
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3		
63200310	GUARDRAIL REMOVAL	FOOT	2757	2757		
Δ 66400105	CHAIN LINK FENCE, 4'	FOOT	1384	1384		
Δ 66500105	WOVEN WIRE FENCE, 4'	FOOT	584	584		
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	14	14		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	24		
67100100	MOBILIZATION	L SUM	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	12	12		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	8723	8723		
70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	25767	25767		
70306210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE III TAPE	FOOT	67	67		

Δ SPECIALTY ITEMS

USER NAME =	DESIGNED - TES	REVISED - Δ 2/24/22
	DRAWN - RLK	REVISED -
PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
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ROCKFORD (815) 489-0050
184-001397

SUMMARY OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 7 OF 9 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	10
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
△ • X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	6	6		
• X4400110	TEMPORARY PAVEMENT REMOVAL	SQ YD	3317	3317		
• X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	558		558	
• X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	4800		4800	
• X6020050	INLETS, TYPE B, SPECIAL, TYPE 8 FRAME AND GRATE	EACH	2	2		
△ X6310214	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	2	2		
• X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
• XX006520	AGGREGATE DRIVEWAY, 6"	SQ YD	556	556		
• Z0004510	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ YD	1187	1187		
• Z0004638	PAVEMENT BREAKING	SQ YD	3140	3140		
• Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
• Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	26		14	12
• Z0022800	FENCE REMOVAL	FOOT	648	648		
• Z0054515	ROCK FILL - EMBANKMENT	TON	90225	90225		
• Z0062456	TEMPORARY PAVEMENT	SQ YD	1310	1310		

△ SPECIALTY ITEMS

GUARDRAIL

STATION	STATION	OFFSET	63000001	63100085	63100167	72501000	78200005	78200010	X6310214
			STEEL PLATE BEAM GUARD RAIL TYPE A, 6 FT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TY 1 (SPL) TANGENT	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REFLECTORS TYPE A	BARRIER WALL REFLECTORS TYPE B	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPL)
			FOOT	EACH	EACH	EACH	EACH	EACH	EACH
27+20.78	27+58.28	RT			1				
27+20.78	32+46.08	RT					7		
27+58.28	32+08.58	RT	450.0						
32+08.58	32+46.08	RT		1					
32+46.08	34+91.83	RT						4	
34+91.83	35+29.33	RT		1					
34+91.83	42+30.35	RT					5		
35+29.33	41+92.85	RT	667.0						
41+92.85	42+30.35	RT		1					
42+30.35	45+81.66	RT						5	
31+30.33	35+05.83	LT						5	
35+05.83	35+66.83	LT					2		
35+05.83	35+43.33	LT							1
35+43.33	35+80.83	LT			1		1		
42+14.00	45+96.06	LT						5	
45+96.06	46+33.56	LT							1
45+96.06	46+71.06	LT					2		
46+33.56	46+71.06	LT			1		1		
		TOTAL	1,117	3	3	3	16	19	2

STORM SEWERS

STATION	OFFSET	STATION	OFFSET	550A0050	54213657	60218500	60235700
				STORM SEWER CLASS A TYPE 1 12"	PRECAST REINFORCED CONCRETE FLARED END SECTION 12"	MANHOLES TYPE A 4' DIAMETER TYPE 3 FRAME & GRATE	INLETS TYPE A TYPE 3 FRAME & GRATE
				FOOT	EACH	EACH	EACH
27+10.0	-33.45	27+10.0	-40.98	7.5	1		1
27+10.0	33.45	27+10.0	39.69	6.2	1		1
28+00.0	-33.45	28+00.0	-40.97	7.5	1		1
28+00.0	33.45	28+00.0	39.68	6.2	1		1
29+00.0	-33.45	29+00.0	-40.97	7.5	1		1
29+00.0	33.45	29+00.0	39.68	6.2	1		1
29+37.0	-33.45	29+37.0	-40.97	7.5	1		1
30+00.0	33.45	30+00.0	39.68	6.2	1		1
31+00.0	33.45	31+00.0	39.68	6.2	1		1
31+75.0	-33.45	31+75.0	-53.51	20.1	1		1
32+13.8	-31.94	32+13.8	-55.17	23.2	1		1
32+13.8	33.94	32+13.8	41.31	7.4	1		1
36+00.7	-34.69	37+38.1	-34.70	137.4			1
37+40.0	-37.58	37+40.0	-60.55	23.0	1	1	
36+00.7	34.69	37+38.1	34.70	137.4			1
37+40.0	37.58	37+40.0	47.11	9.5	1	1	
38+74.3	-34.69	37+41.9	-35.69	132.4			1
38+74.3	34.69	37+41.9	35.69	132.4			1
39+74.3	-34.69	38+75.7	-34.69	98.5			1
39+74.3	34.69	38+75.7	34.69	98.5			1
40+74.3	-34.69	39+75.7	-34.69	98.5			1
40+74.3	34.69	39+75.7	34.69	98.5			1
46+36.0	-34.25	46+36.0	-54.35	20.1	1		1
46+36.0	34.25	46+36.0	40.50	6.3	1		1
47+75.0	-33.44	47+75.0	-53.47	20.0	1		1
47+75.0	33.44	47+75.0	45.95	12.5	1		1
49+50.0	-33.44	49+50.0	-55.50	22.1	1		1
49+50.0	33.44	49+50.0	36.81	3.4	1		1
		TOTAL		1163	20	2	26

RIPRAP

STATION	STATION	OFFSET	TYPE	28100107	28200200
				STONE RIPRAP CLASS A4	FILTER FABRIC
				TONS	SO YD
19+50.0	22+00.0	RT	DITCH LINING	560	611
20+75.0	21+50.0	LT	DITCH LINING	168	183
26+00.0	28+00.0	LT	DITCH LINING	448	489
27+00.0	-	LT	PIPE OUTLET	13	15
27+00.0	-	RT	PIPE OUTLET	7	8
28+00.0	-	LT	PIPE OUTLET	23	25
28+00.0	-	RT	PIPE OUTLET	12	13
29+00.0	-	LT	PIPE OUTLET	23	25
29+00.0	-	RT	PIPE OUTLET	13	14
29+37.0	-	LT	PIPE OUTLET	23	25
29+00.0	32+49.3	RT	CAUSEWAY	1251	1364
30+00.0	-	RT	PIPE OUTLET	9	9
31+00.0	-	RT	PIPE OUTLET	8	9
31+51.0	-	LT	PIPE OUTLET	13	15
32+25.0	-	LT	PIPE OUTLET	7	7
32+25.0	-	RT	PIPE OUTLET	7	8
32+00.0	32+49.3	LT	CAUSEWAY	121	132
32+49.3	33+04.6		BRIDGE	853	931
34+33.1	34+88.6		BRIDGE	861	938
34+88.6	42+33.0	LT	CAUSEWAY	2460	2684
34+88.6	42+33.0	RT	CAUSEWAY	2347	2560
42+33.0	42+91.0		BRIDGE	904	987
45+14.7	45+77.7		BRIDGE	1086	1185
45+77.7	46+50.0	LT	CAUSEWAY	227	248
45+77.7	46+50.0	RT	CAUSEWAY	166	181
46+05.0	-	LT	PIPE OUTLET	15	16
46+05.0	-	RT	PIPE OUTLET	18	20
46+50.0	50+00.0	LT	DITCH LINING	570	622
46+50.0	48+00.0	RT	DITCH LINING	336	367
47+75.0	-	LT	PIPE OUTLET	13	13
		TOTAL		12562	13704

CONCRETE CURB AND GUTTER

STATION	OFFSET	STATION	OFFSET	60605000	42001300
				CONCRETE CURB AND GUTTER TYPE B-6.24	PROTECTIVE COAT
				FOOT	SO YD
26+00.0	31	29+38.8	31	339	113
29+38.8	31	30+13.4	47.7	77	25
30+13.4	47.7	30+39.9	89.2	53	18
30+86.3	86	31+00.0	56	34	11
31+00.0	56	31+49.9	31.2	57	19
31+49.9	31.2	32+30.3	33	81	27
26+00.3	31	31+00.0	31	500	166
31+00.0	31	31+40.3	31	40	13
31+40.3	31	32+30.3	33	90	30
35+07.8	33	42+14.0	33	706	236
35+07.5	33	42+14.6	33	707	236
45+96.7	33	46+86.7	31	90	30
46+86.7	31	51+00.0	31	413	138
51+00.0	31	52+00.0	31	100	33
45+96.7	33	46+86.7	31	90	30
46+86.7	31	51+00.0	31	413	138
51+00.0	31	52+00.0	31	100	33
		TOTAL		3890	1296

INLET & PIPE PROTECTION

STATION	OFFSET		28000500
			INLET AND PIPE PROTECTION EACH
REAS BRIDGE ROAD			
18+62.0	33.8	RT	1
20+41.4	34.8	RT	1
22+00.0	47.0	RT	1
22+80.0	54.9	RT	1
24+69.0	59.9	RT	1
26+28.0	76.1	RT	1
27+10.0	32.7	RT	1
27+10.0	32.7	RT	1
28+00.0	32.7	RT	1
28+00.0	32.7	RT	1
29+00.0	32.7	RT	1
29+00.0	32.7	RT	1
29+37.0	32.7	RT	1
30+00.0	32.7	RT	1
31+00.0	32.7	RT	1
31+00.0	32.7	RT	1
31+75.0	33.0	RT	1
32+13.8	34.6	RT	1
32+13.8	34.6	RT	1
36+00.0	34.7	RT	1
36+00.0	34.7	RT	1
37+40.0	34.7	RT	1
37+40.0	34.7	RT	1
37+40.0	34.7	RT	1
38+75.0	34.7	RT	1
38+75.0	34.7	RT	1
39+75.0	34.7	RT	1
39+75.0	34.7	RT	1
40+75.0	34.7	RT	1
40+75.0	34.7	RT	1
46+36.0	34.5	RT	1
46+36.0	34.5	RT	1
47+75.0	32.7	RT	1
47+75.0	32.7	RT	1
49+50.0	32.7	RT	1
49+50.0	32.7	RT	1
50+14.7	46.6	RT	1
51+16.5	62.6	RT	1
51+57.8	46.6	RT	1
52+46.0	36.4	RT	1
54+38.0	31.9	RT	1
54+48.7	47.3	RT	1
55+96.3	33.4	RT	1
56+95.2	36.2	RT	1
58+49.3	47.7	RT	1
59+10.3	35.0	RT	1
SANGAMON ROAD			
76+00.0	22.0	RT	1
77+40.0	39.3	RT	1
79+00.0	37.5	RT	1
		TOTAL	47

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USER NAME =	DESIGNED - TFS	REVISED - 2/24/22
PLOT SCALE =	DRAWN - RLK	REVISED -
PLOT DATE =	CHECKED - JMB	REVISED -
	DATE -	REVISED -

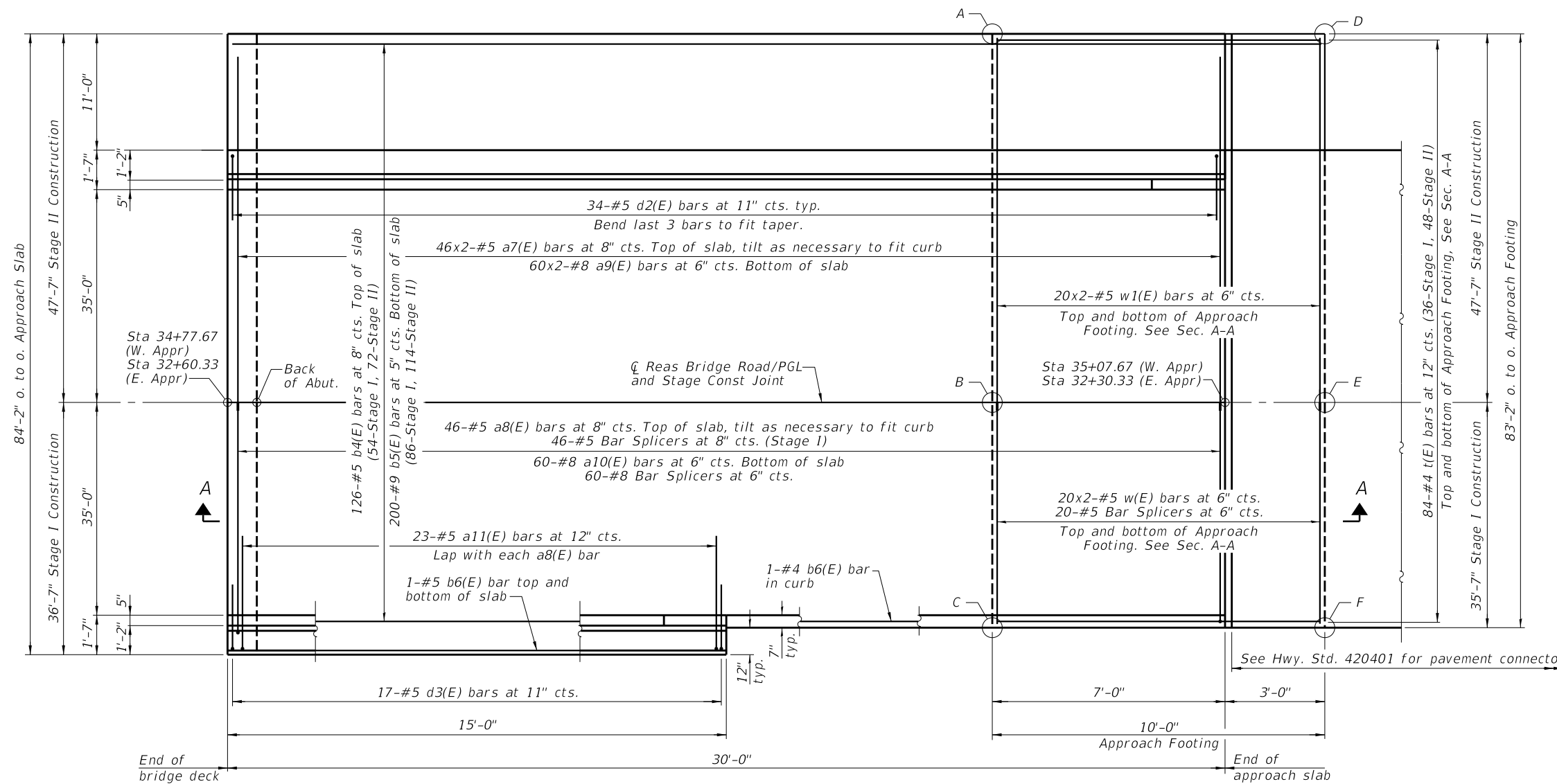
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ROCKFORD (815) 489-0050
184-001397

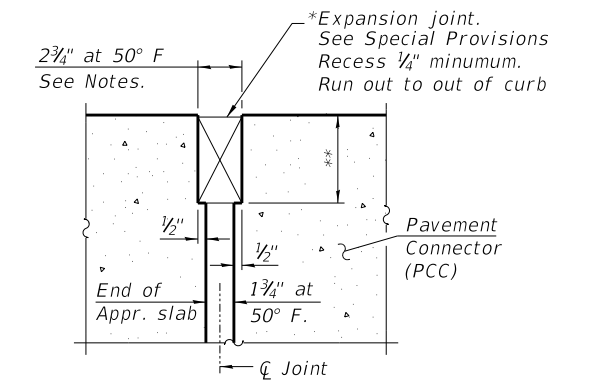
SCHEDULE OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	17
CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

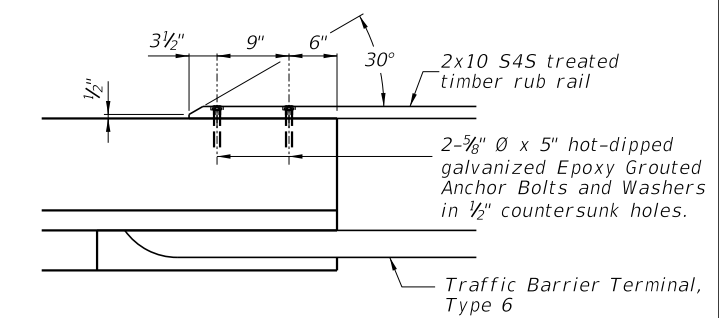


PLAN
(West approach shown, East approach similar)

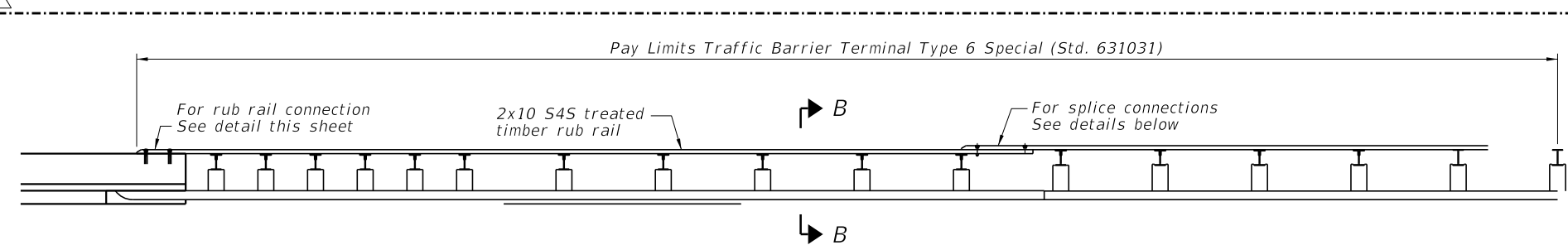


DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).
** Per manufacturer recommendations



RUB RAIL CONNECTION TO PARAPET



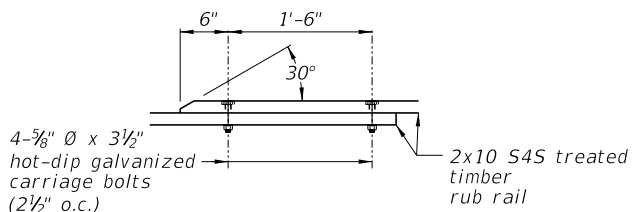
Note: First two posts of TBT Type 6 conflict with approach slab footing. Form opening for posts accordingly.

SHARED-USE PATH RUB RAIL DETAIL

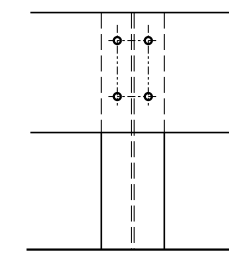
The cost for the rub rail work shall be included in the cost of Traffic Barrier Terminal, Type 6 Special. (See Roadway Plans) Rub rail shall conform to Section 1007.

RUB RAIL LOCATION

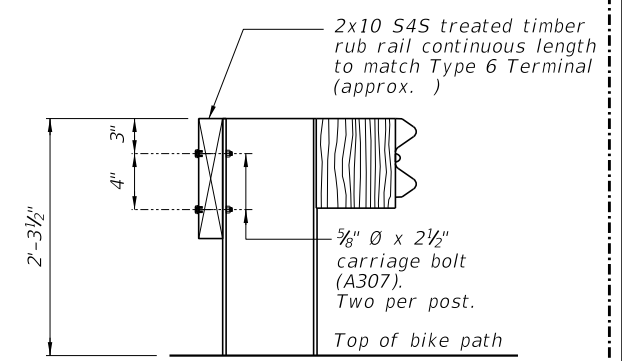
Station	to	Station
Lt 35+07		Lt 35+45



2x10 SPLICE CONNECTION DETAIL



ELEVATION



SECTION B-B

(Sheet 1 of 3)

FILE NAME = I:\Municipalities\Macon County\6487 Reas Bridge Road Bridge Replacement\CADD\Structural\EastBridge\Approach.dgn

USER NAME = jbuening	DESIGNED JMB	REVISED - 2/24/22
PLOT TIME = 9:40:44 AM	DRAWN RLK	REVISED -
PLOT SCALE = 8,0000' / 1"	CHECKED BCG	REVISED -
PLOT DATE = 2/25/2022	DATE	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

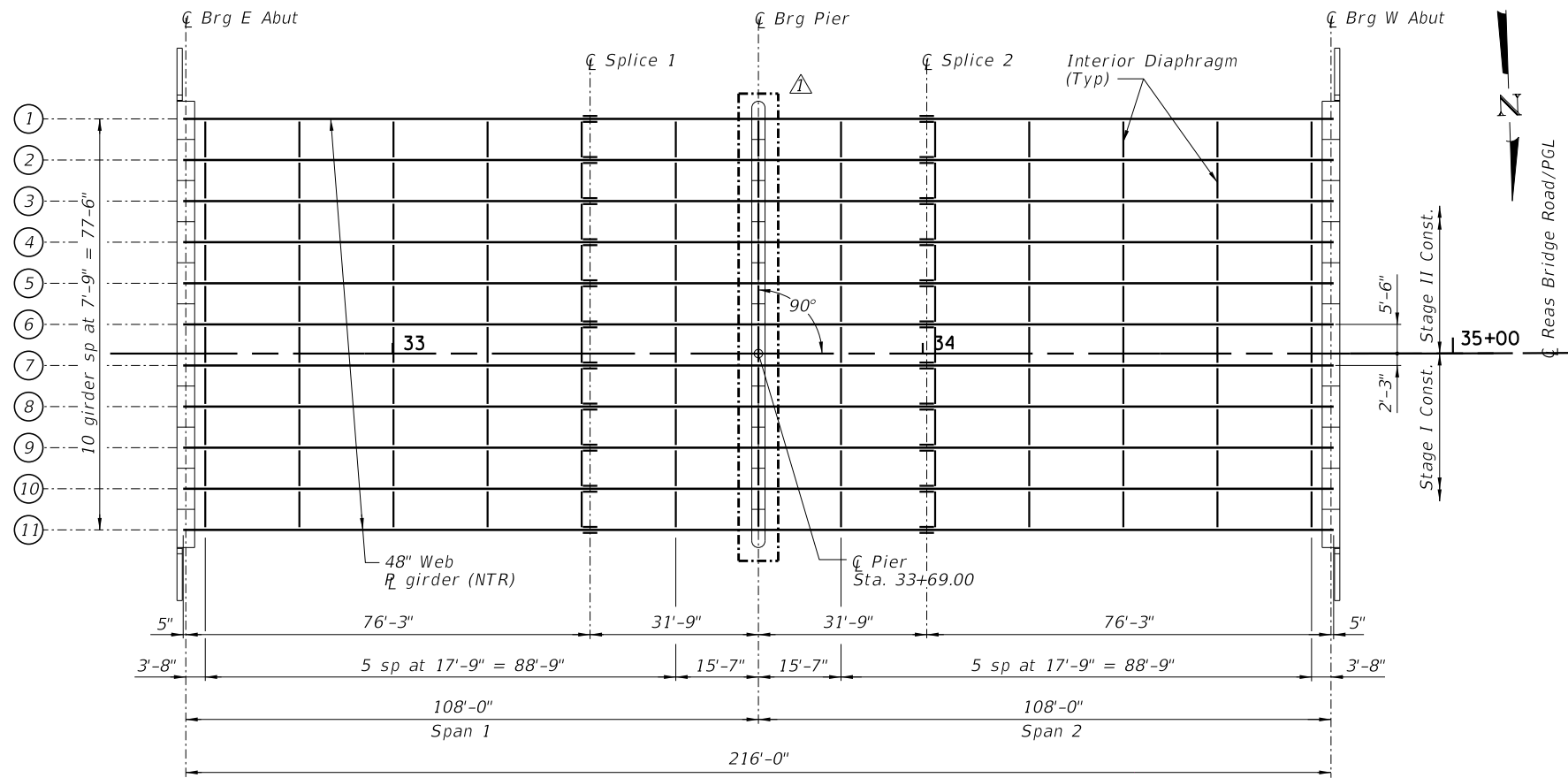
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184-001397

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 058-3409

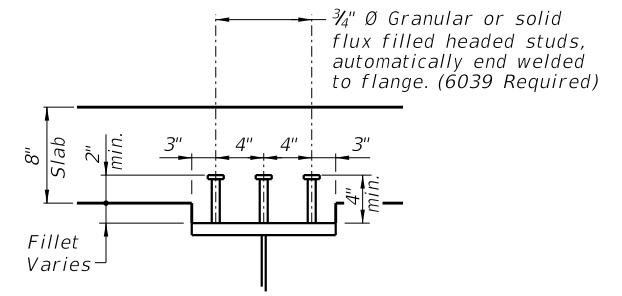
SHEET NO. 17 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	81
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



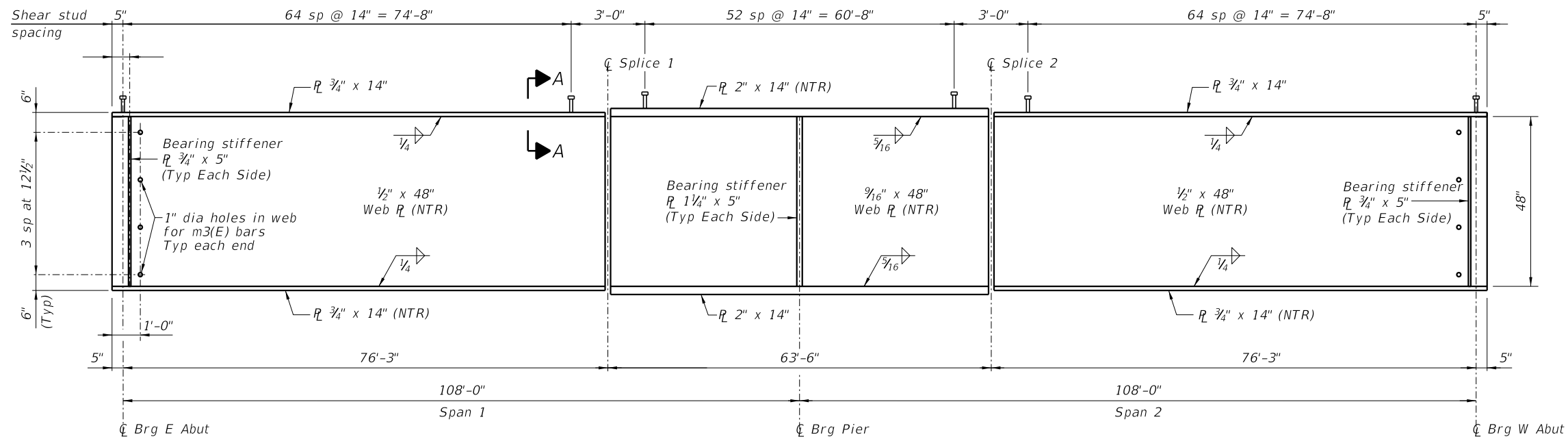
FRAMING PLAN



SECTION A-A

NOTES:

- All girders, splice plates, diaphragms and bearing stiffeners shall be AASHTO M270 Grade 50W.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



GIRDER ELEVATION

FILE NAME = I:\Municipalities\Macon County\6487 Reas Bridge Road Bridge Replacement\CADD\Structural\EastBridge\Framing.dgn

USER NAME = jbenning	DESIGNED JMB	REVISED - 2/24/22
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PLOT SCALE = 32.0000' / 1"	CHECKED BCG	REVISED -
PLOT DATE = 2/24/2022	DATE	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

FRAMING PLAN AND DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 22 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	86
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structural Data
- 3 Footing Layout
- 4 Stage Construction Details
- 5 Temporary Soil Retention System
- 6 Temporary Concrete Barrier for Stage Construction
- 7 Top of Deck Elevations
- 8 Top of Deck Elevations
- 9 Top of Deck Elevations
- 10 Top of Deck Elevations
- 11 Top of Deck Elevations
- 12 Top of East Approach Slab Elevations
- 13 Top of West Approach Slab Elevations
- 14 Superstructure
- 15 Superstructure Details
- 16 Superstructure Details
- 17 Superstructure Details
- 18 Diaphragm Details
- 19 Bridge Approach Slab Details
- 20 Bridge Approach Slab Details
- 21 Bridge Approach Slab Details
- 22 Bridge Approach Slab Details
- 23 Bridge Approach Slab Details
- 24 Bridge Approach Slab Details
- 25 Bicycle Railing
- 26 Drainage Scupper, DS-12
- 27 Framing Plan and Details
- 28 Framing Details
- 29 Framing Details
- 30 Moment Tables
- 31 Bearing Details
- 32 East Abutment
- 33 West Abutment
- 34 Abutment Details
- 35 Pier 1
- 36 Pier 2
- 37 Pier Details
- 38 HP Pile Details
- 39 Bar Splicer Assembly and Mechanical Splicer Details
- 40 Subsurface Data Profile

GENERAL NOTES:

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas.
Bolts 7/8" Ø in holes 1 1/16" Ø, unless otherwise noted.

⚠ **Calculated weight of Structural Steel = 770,970 lb**

All structural steel shall be AASHTO M270 Grade 50W

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the CONTRACTOR elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

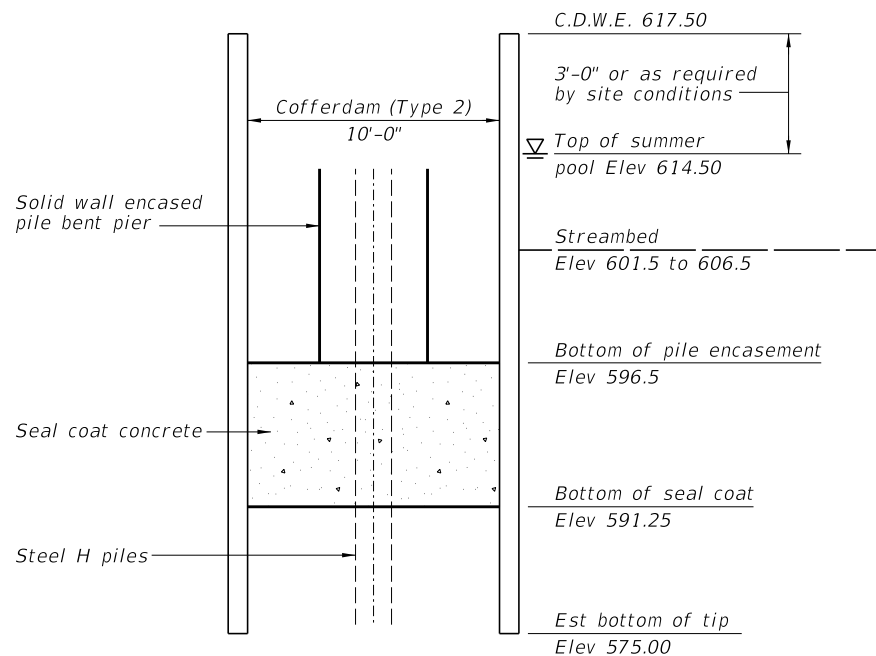
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the ENGINEER.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The CONTRACTOR shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc.

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the ENGINEER for approval with the cofferdam design.

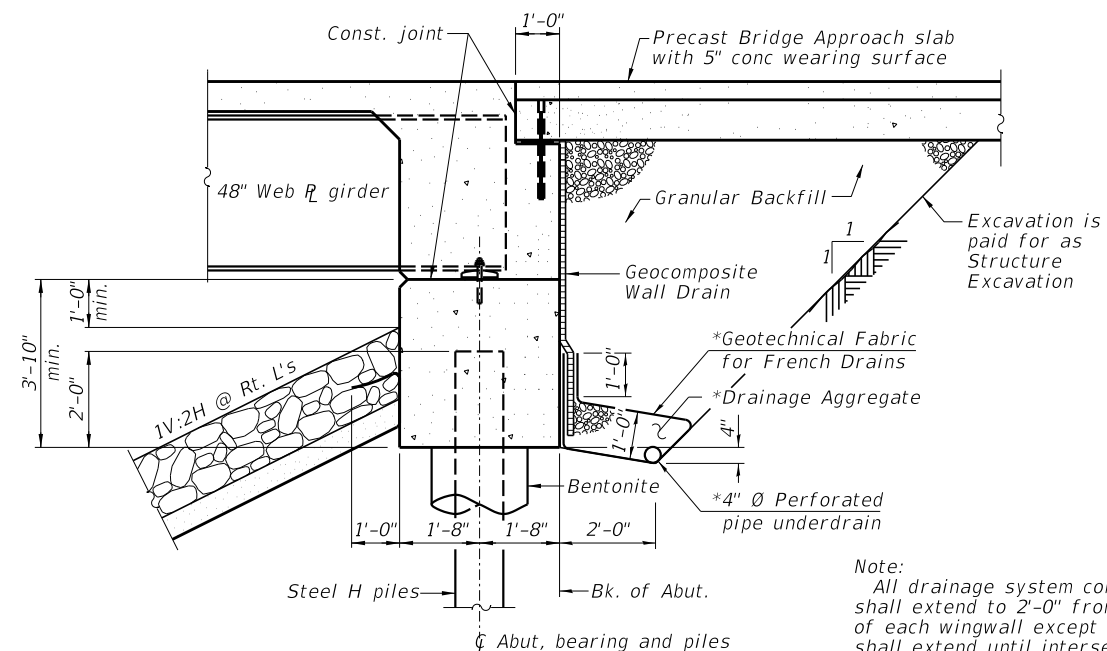
Slipforming of parapets is not allowed.



SEAL COAT SCHEMATIC

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures No. 2	Each	1	---	1
Structure Excavation	Cu. Yd.	---	109	109
Cofferdam Excavation	Cu. Yd.	---	832	832
Cofferdam (Type 2) (Location - 2)	Each	---	1	1
Cofferdam (Type 2) (Location - 3)	Each	---	1	1
Concrete Structures	Cu. Yd.	---	554.4	554.4
Concrete Superstructure	Cu. Yd.	948.7	---	948.7
Bridge Deck Grooving	Sq. Yd.	2316	---	2316
Seal Coat Concrete	Cu. Yd.	---	356	356
Protective Coat	Sq. Yd.	3785	---	3785
Furnishing and Erecting Structural Steel	L. Sum	0.5	---	0.5
Stud Shear Connectors	Each	9570	---	9570
Reinforcement Bars, Epoxy Coated	Pound	242,260	47,730	289,990
Bar Splicers	Each	1582	186	1768
Bicycle Railing	Foot	378	---	378
Parapet Railing	Foot	378	---	378
Furnishing Steel Piles HP14x73	Foot	---	3290	3290
Driving Piles	Foot	---	3290	3290
Test Pile Steel HP14x73	Each	---	4	4
Name Plates	Each	1	---	1
Preformed Joint Strip Seal	Foot	167	---	167
Anchor Bolts, 1"	Each	---	44	44
Anchor Bolts, 1 1/4"	Each	---	44	44
Temporary Soil Retention System	Sq. Ft.	---	1692	1692
Geocomposite Wall Drain	Sq. Yd.	---	175	175
Concrete Wearing Surface, 5"	Sq. Yd.	558	---	558
Precast Bridge Approach Slab	Sq. Ft.	4800	---	4800
Granular Backfill for Structures	Cu. Yd.	---	313	313
Drainage Scuppers, DS-12	Each	14	---	14
Pipe Underdrains for Structures 4"	Foot	---	242	242



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

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

FILE NAME = I:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\WestBridge\structdata.dgn

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PLOT SCALE = 8:00 '1' = 1"	CHECKED BCG	REVISED -
PLOT DATE = 2/24/2022	DATE	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

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184-001397

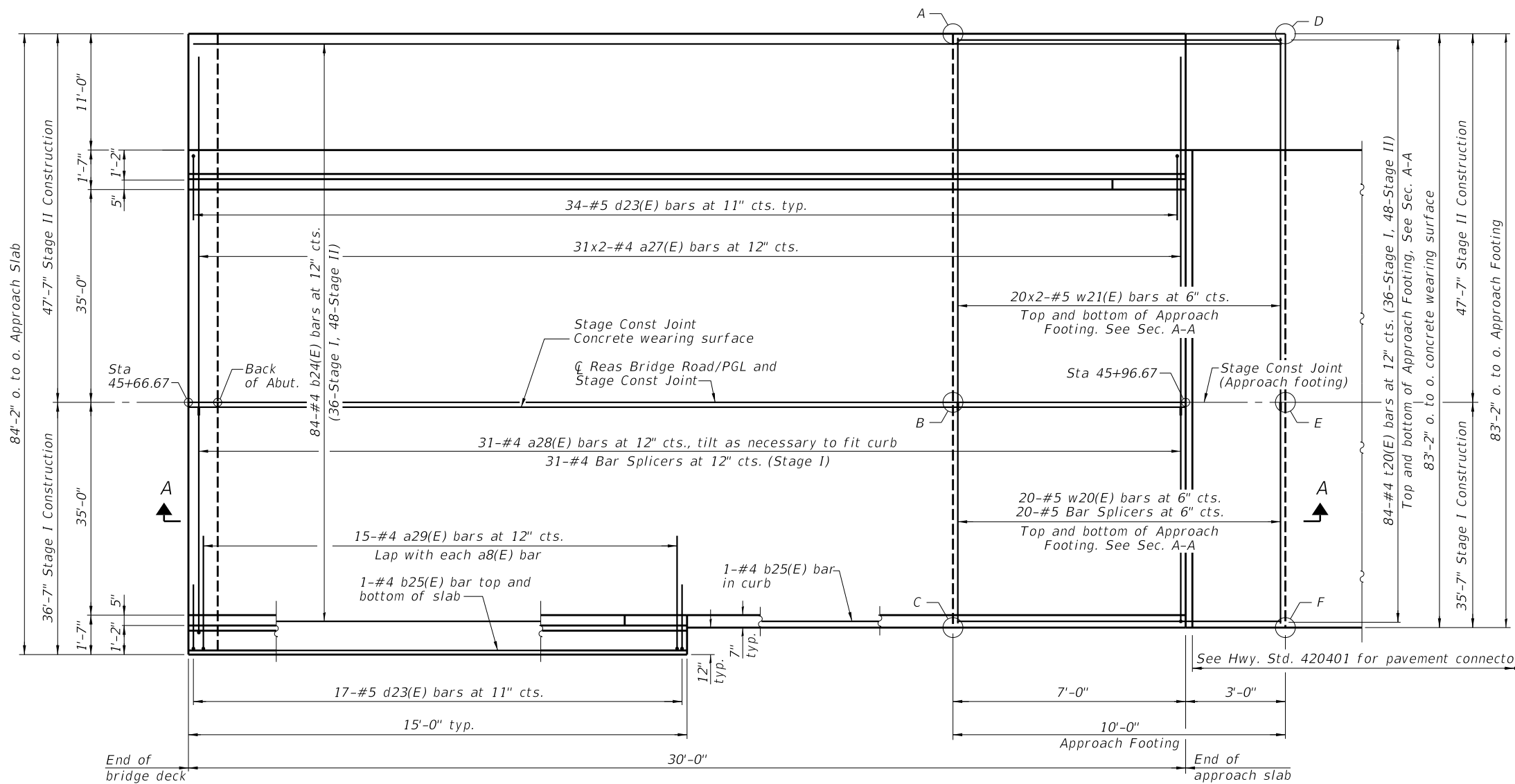
GENERAL STRUCTURAL DATA
STRUCTURE NO. 058-3408

SHEET NO. 2 OF 40 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	99
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

FILE NAME = i:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\WestBridge\Approach\slab.dgn

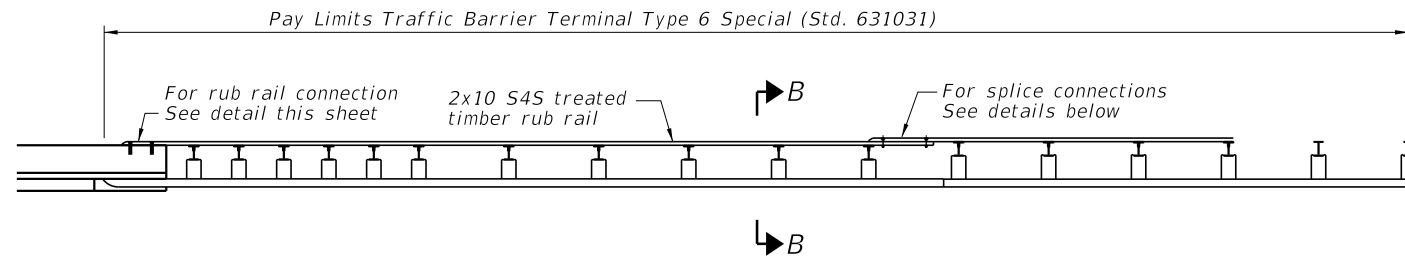


PLAN - WEST APPROACH

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	Top	Bottom
A	630.68	629.85
B	631.61	629.85
C	630.87	629.85
D	630.76	630.03
E	631.68	630.03
F	630.94	630.03

Note: First two posts of TBT Type 6 conflict with approach slab footing. Form opening for posts accordingly.

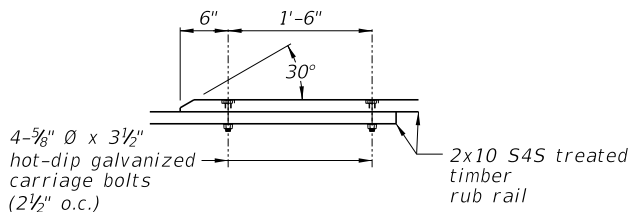


SHARED-USE PATH RUB RAIL DETAIL

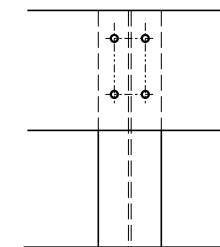
The cost for the rub rail work shall be included in the cost of Traffic Barrier Terminal, Type 6 Special (See Roadway Plans) Rub rail shall conform to Section 1007.

RUB RAIL LOCATION

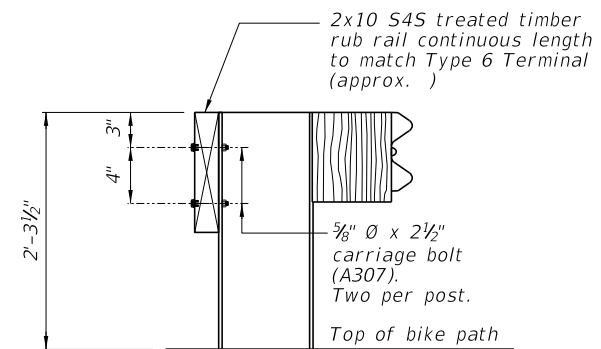
Station to Station
Lt 45+97 Lt 46+34



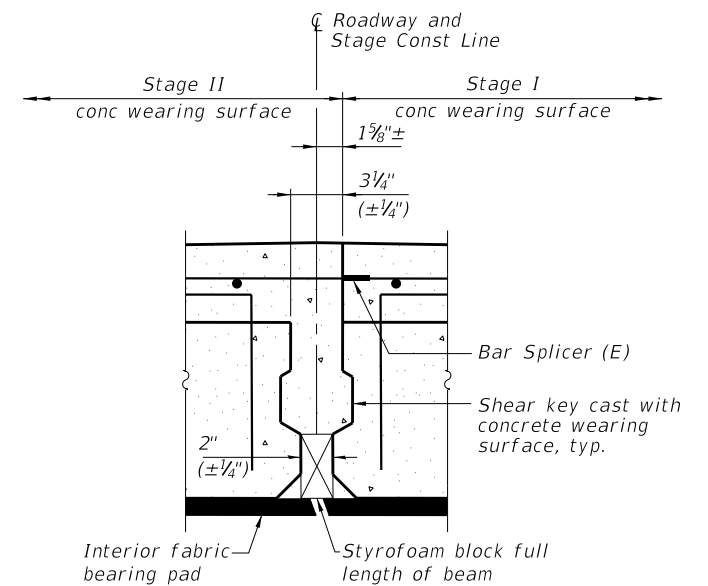
2x10 SPLICE CONNECTION DETAIL



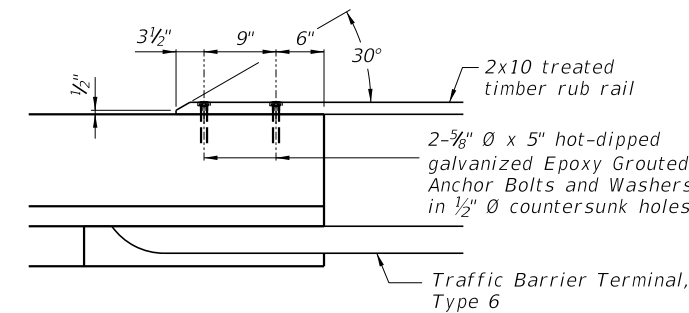
ELEVATION



SECTION B-B



DETAIL 'A'



RUB RAIL CONNECTION TO PARAPET

(Sheet 3 of 6)

USER NAME = jbuening
PLOT TIME = 9:39:31 AM
PLOT SCALE = 8,0000' / 1" =
PLOT DATE = 2/25/2022

DESIGNED JMB
DRAWN RLK
CHECKED BCG
DATE

REVISED - 2/24/22
REVISED -
REVISED -
REVISED -

CHASTAIN & ASSOCIATES LLC
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184-001397

PRECAST BRIDGE APPROACH SLAB (WEST APPROACH)
STRUCTURE NO. 058-3408

SHEET NO. 21 OF 40 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	118
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT