

CONTRACT NO. : 95929

04-28-2023 LETTING ITEM 156

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
STP OFF-SYSTEM BRIDGE FUNDING

TR 78 (N 300 STREET) OVER RACCOON CREEK
SECTION 19-02130-00-BR
BEAR GROVE ROAD DISTRICT
PROJECT NO. 6Z2T(482)
FAYETTE COUNTY
JOB NO. C-97-106-22

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	1
			CONTRACT NO. 95929	

GCL JOB NO. 20-6018

INDEX OF SHEETS

- COVER SHEET
- SUMMARY OF QUANTITIES, GENERAL NOTES, AND TYPICAL SECTIONS
- PLAN AND PROFILE OF ROADWAY
- GENERAL PLAN AND ELEVATION
- 5.-6. PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
- STEEL RAILING, TYPE S1 DETAILS
- ABUTMENT DETAILS
- HP PILE DETAILS
- 10.-11. CROSS SECTIONS OF ROADWAY

HIGHWAY STANDARDS (SEE SPECIFICATIONS)

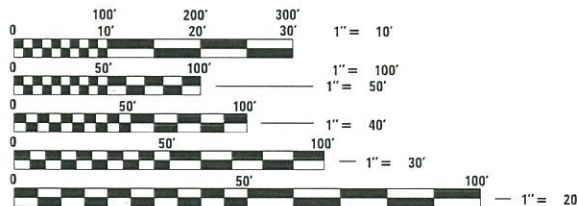
- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 515001-04 NAME PLATE FOR BRIDGES
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SOIL BORINGS (SEE SPECIFICATIONS)

DESIGN CLASSIFICATION: RURAL LOCAL ROAD

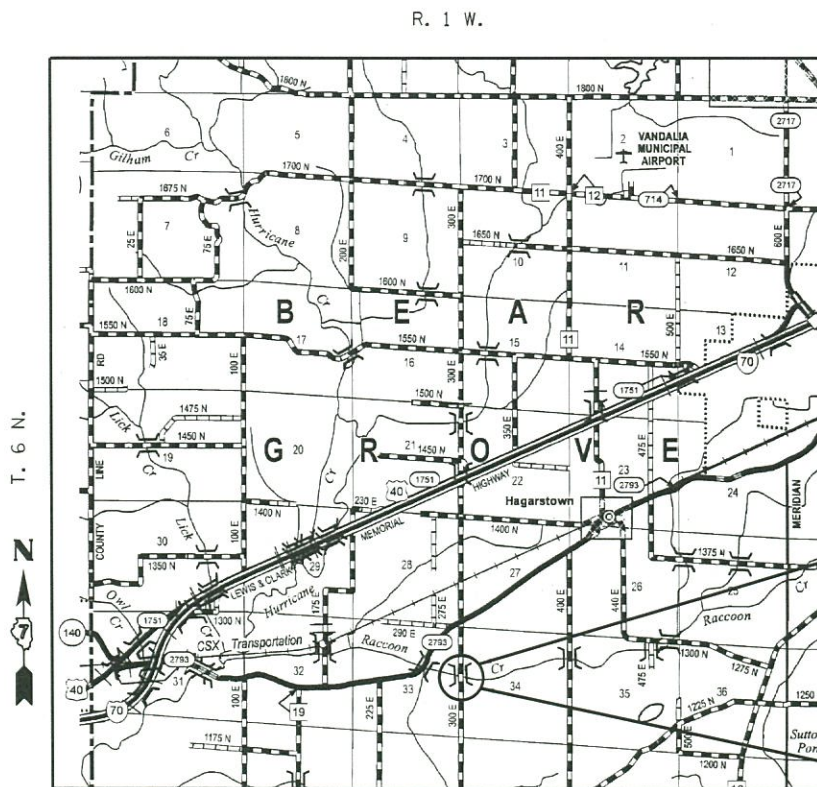
ADT₂₀₂₁ : 175

DESIGN SPEED: 30 mph



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 LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123 or 811 Website: <http://www.illinoistcall.com>

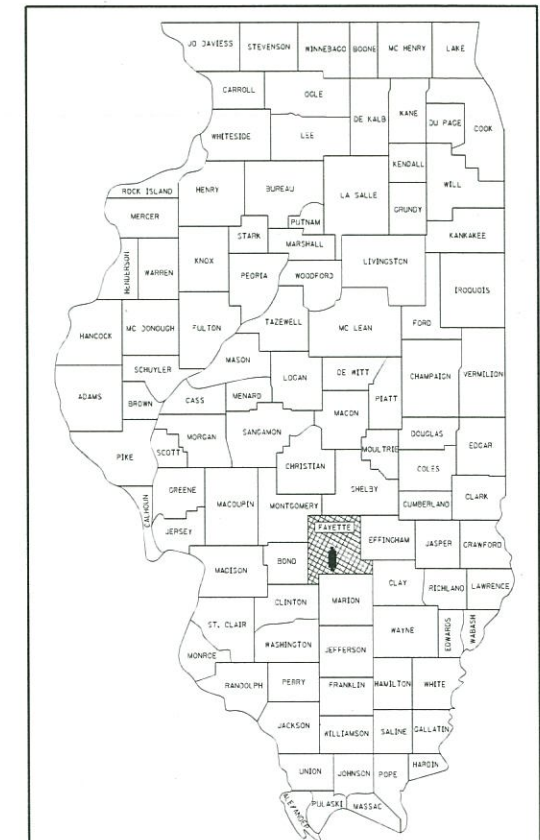


SECTION ENDS STA. 13+05.00

SECTION 19-02130-00-BR INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 78 OVER RACCOON CREEK, 72'-0" BK. TO BK. ABUTMENTS X 24' WIDE, NO SKEW. EXISTING STRUCTURE NO. 026-3059 PROPOSED STRUCTURE NO. 026-3478

SECTION BEGINS STA. 7+00.00

LOCATION: NEAR THE SW CORNER OF THE NW 1/4, SECTION 34, T6N, R1W, 3RD P.M.
GROSS LENGTH OF PROJECT: 605.00 FT. = 0.115 MI.
NET LENGTH OF PROJECT: 605.00 FT. = 0.115 MI.



LOCATION OF SECTION INDICATED THUS: -

FAYETTE COUNTY
HIGHWAY DEPARTMENT

APPROVED 11-7-2022
[Signature]
FAYETTE COUNTY, COUNTY ENGINEER

PASSED 11/10/22
[Signature]
DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW 11/10/22
[Signature]
REGION FOUR ENGINEER

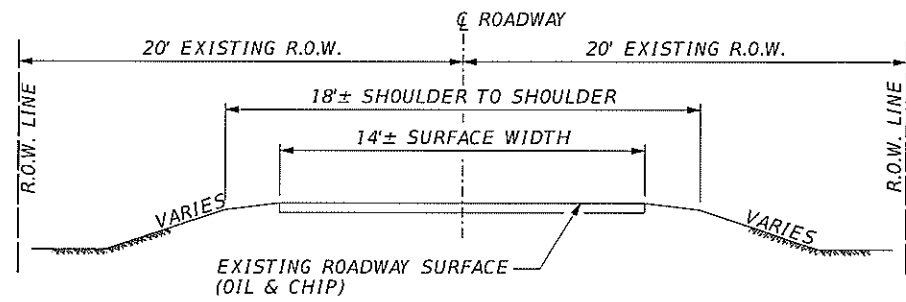
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OF THE STATE OF ILLINOIS



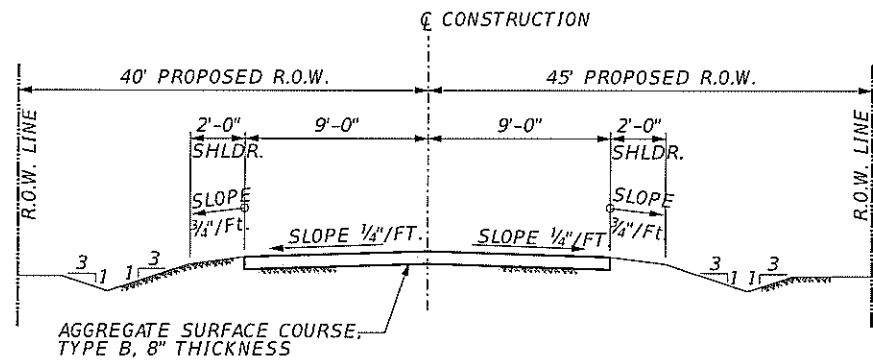
[Signature] 11/07/2022
BRENT L. TAYLOR
SALEM, ILLINOIS
ILLINOIS LICENSED PROFESSIONAL
ENGINEER NO. 062-066114
EXPIRES NOV. 30, 2023

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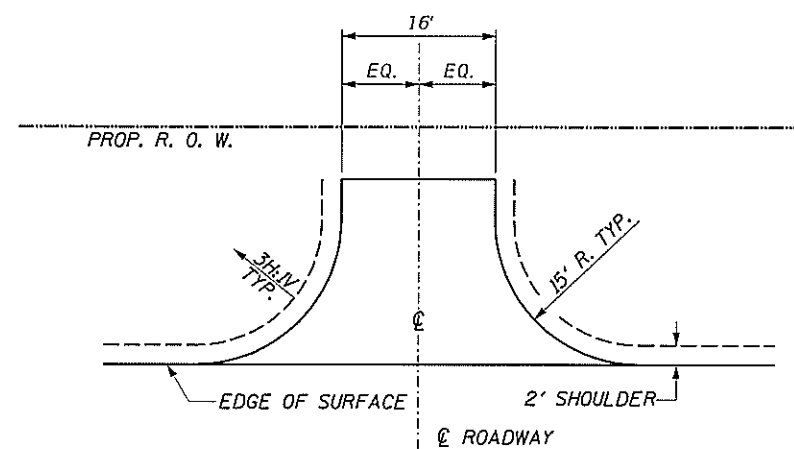
11/07/2022



**TYPICAL SECTION
EXISTING APPROACH ROADWAY**



**TYPICAL SECTION
PROPOSED APPROACH ROADWAY**



TYPICAL ENTRANCE DETAIL

F.E. RT., STA. 8+00 (TURF SURFACE)
F.E. LT., STA. 8+50 (TURF SURFACE)
F.E. RT., STA. 11+72/12+10 (COMBINED) (TURF SURFACE)

UTILITIES

DESIGN PHASE LOCATE
J.U.L.I.E. DIG NO. A3152250-00A
DATE: 11/11/2021

ELECTRIC:
AMEREN ILLINOIS (SOUTH)
NATHAN HILL
618-301-5327
NHILL2@AMEREN.COM

COMMUNICATIONS:
ATT/DISTRIBUTION
G11629@ATT.COM

GENERAL NOTES

- THIS SECTION SHALL BE CONSTRUCTED ACCORDING TO THE PLANS, THE SPECIAL PROVISIONS, AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022.
- ROADWAY CENTERLINE PROFILES REFER TO THE FINISHED SURFACE.
- EXISTING UTILITIES SHOWN ARE LOCATED FROM SURFACE OBSERVATIONS OR INFORMATION PROVIDED BY THE RESPECTIVE UTILITIES AND MUST BE CONSIDERED APPROXIMATE AND ARE ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THERE MAY BE OTHERS, THE EXACT LOCATION OF WHICH ARE UNKNOWN AND NOT SHOWN. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE RESPECTIVE UTILITIES BEFORE WORK IS BEGUN. FIELD MARKING OF UNDERGROUND UTILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 1-800-892-0123, 811, OR BY DIRECT CONTACT WITH NON-MEMBERS OF J.U.L.I.E.
- FACTORS USED FOR QUANTITY CALCULATIONS ARE AS FOLLOWS:
 POROUS GRANULAR EMBANKMENT 2.1 tons/cu. yd.
 STONE DUMPED RIPRAP 130 pounds/cu. ft.
 AGGREGATE SURFACE COURSE 2.1 tons/cu. yd.
- COMMITMENTS:
 NO TREE CLEARING WILL BE ALLOWED OR PERFORMED FROM APRIL 1 THROUGH SEPTEMBER 30, IN AN EFFORT TO CONSERVE THE NORTHERN LONG-EARED BAT AND THE INDIANA BAT.

EXISTING FENCE REMOVAL / REPLACEMENT WITHIN THE LIMITS OF CONSTRUCTION WILL BE DONE BY OTHERS AND WILL BE COORDINATED BY THE TOWNSHIP. THE REMOVAL WILL BE DONE PRIOR TO THE START OF CONSTRUCTION.

THE COUNTY ENGINEER WILL NOTIFY PUBLIC SERVICE PROVIDERS PRIOR TO THE START OF CONSTRUCTION.

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.1
20200100	EARTH EXCAVATION	CU YD	242
20300100	CHANNEL EXCAVATION	CU YD	250
20400800	FURNISHED EXCAVATION	CU YD	1166
20700110	POROUS GRANULAR EMBANKMENT	TON	108
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	200
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	485
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	40
50300225	CONCRETE STRUCTURES	CU YD	30.4
50300280	CONCRETE ENCASEMENT	CU YD	2.8
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	1680
50800105	REINFORCEMENT BARS	POUND	4560
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	144
51201600	FURNISHING STEEL PILES HP12X53	FOOT	475
51202305	DRIVING PILES	FOOT	475
51203600	TEST PILE STEEL HP12X53	EACH	1
51500100	NAME PLATES	EACH	1
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	108
67100100	MOBILIZATION	L SUM	1
Δ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5
X6011705	PIPE DRAINS 6" (SPECIAL)	FOOT	20
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

Δ SPECIALTY ITEMS

EXISTING STRUCTURE: STRUCTURE NO.: 026-3059. SINGLE SPAN BRIDGE WITH CONCRETE DECK ON A STEEL BEAMS SUPPORTED ON CLOSED CONCRETE ABUTMENTS 40'± L. x 18'± W. NO SKEW. TO BE REMOVED.

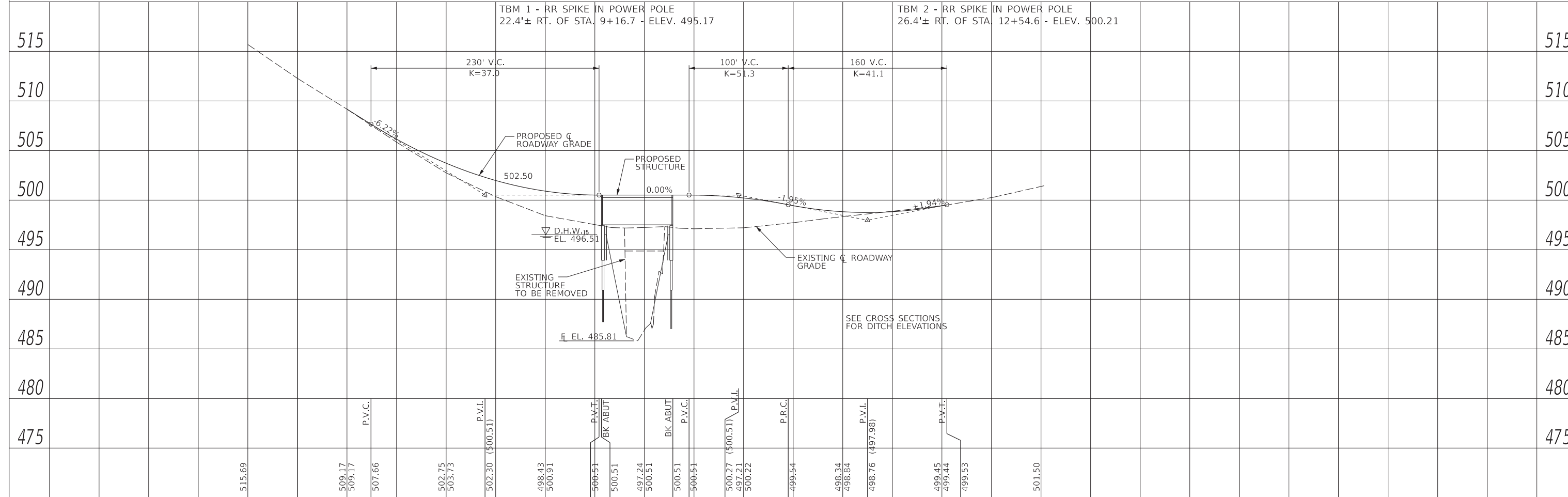
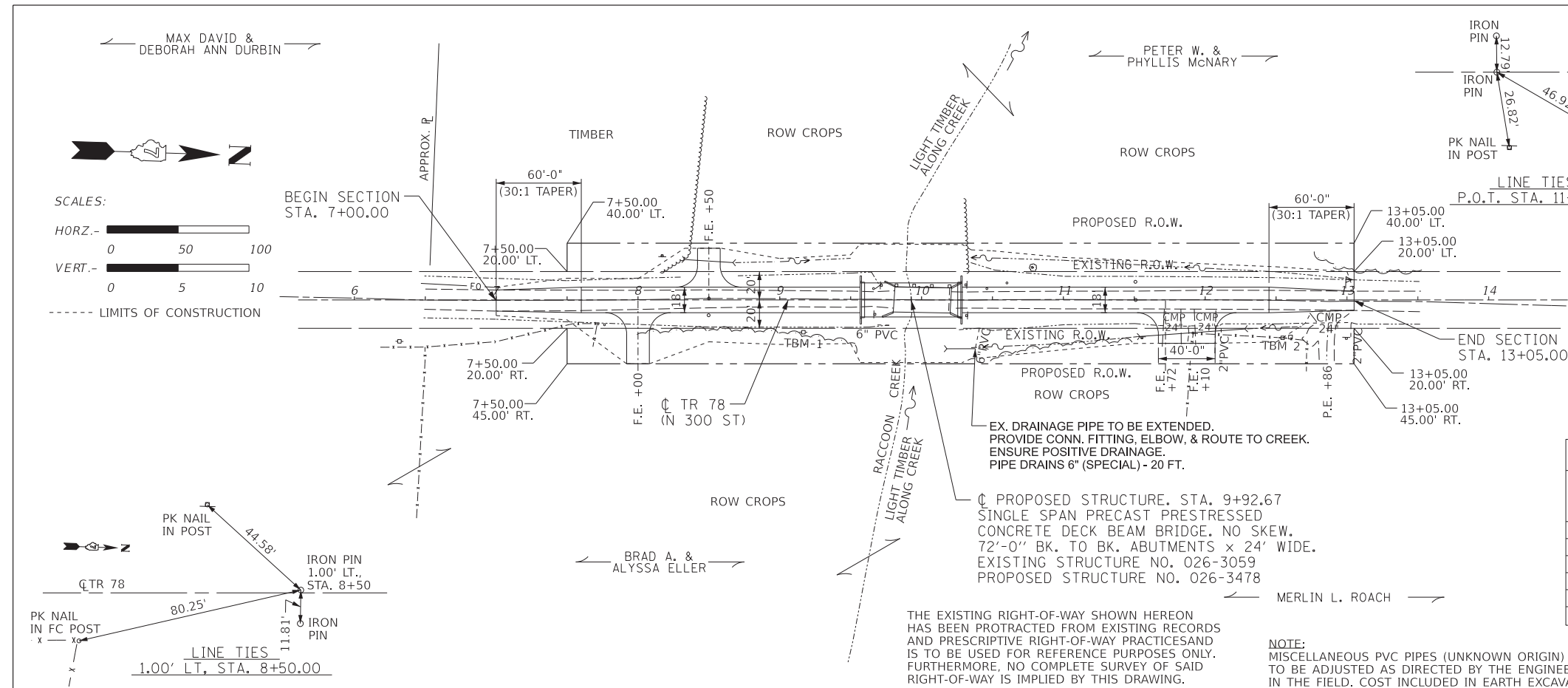
TREE REMOVAL, ACRES (C TO PROP. R.O.W.)	
LOCATION	ACRE
LT., STA. 9+25 TO STA. 10+35	0.1
TOTAL	0.1

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 7+00.00 TO STA. 9+56.67	19	14	633	-619
STA. 10+28.67 TO STA. 13+05.00	223	167	714	-547
TOTAL	242	181	1347	-1166

*25% SHRINKAGE **FURNISHED EXCAVATION

CULVERT SCHEDULE						
TYPE	STATION / OFFSET	SURFACE	*CULVERT	D.S.F.L.	U.S.F.L.	PIPE CULVERT REMOVAL
FIELD ENT.	STA. 8+00, RT.	TURF	NA			NA
FIELD ENT.	STA. 8+50, LT.	TURF	24" X 34'	26.3' LT., 496.03	28.3' LT., 496.37	NA
FIELD ENT.	STA. 11+72, RT.	TURF	24" X 74'	25.8' LT., 494.16	20.5' LT., 495.35	20'
FIELD ENT.	STA. 12+10, RT.	TURF				20'
TOTAL			108'			40'

* PIPE CULVERTS, CLASS D, ALUMINIZED STEEL, TYPE 1, CORRUGATED METAL PIPE



DATE	BY

DATE	BY

gonzalez
 GONZALEZ COMPANIES, LLC
 7 CARPENTER DRIVE
 SALEM, IL 62881
 PHONE (618) 222-2221
 www.gonzalezcoos.com
 ILLINOIS PROFESSIONAL DESIGN FIRM 184,004564

DESIGNED - BLT	REVISED -
DRAWN - JN, KMA, JMW	REVISED -
CHECKED - BLT	REVISED -
DATE - 11/07/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF ROADWAY
 STA. 6+00 TO STA. 14+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	3

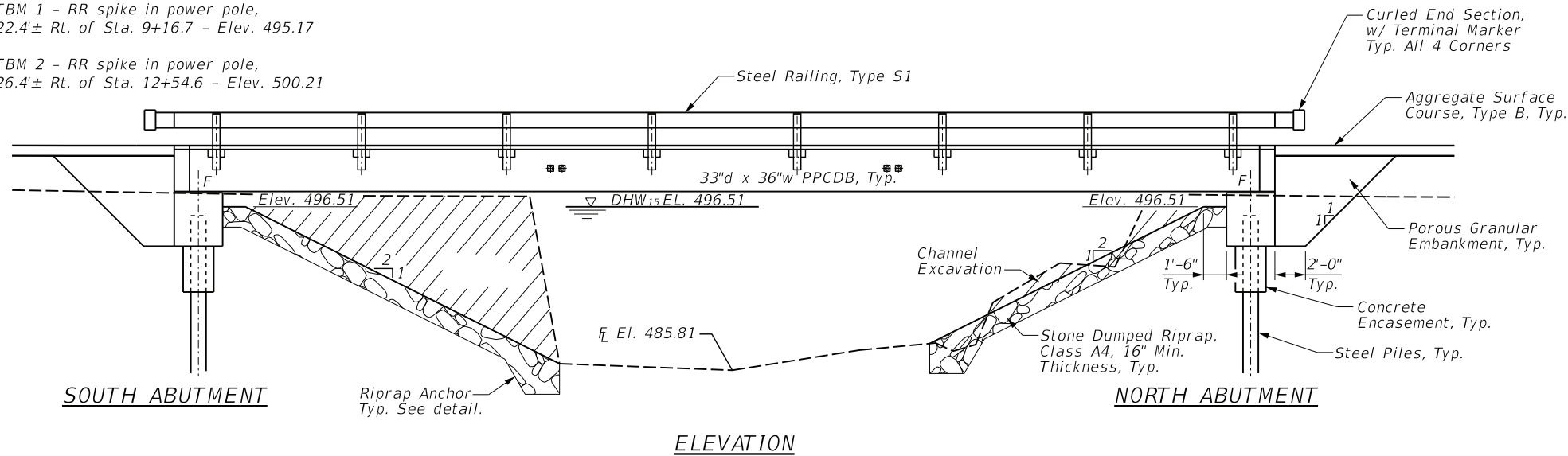
CONTRACT NO. 95929

GLC JOB NO. 20-6018

TBM 1 - RR spike in power pole,
22.4± Rt. of Sta. 9+16.7 - Elev. 495.17

TBM 2 - RR spike in power pole,
26.4± Rt. of Sta. 12+54.6 - Elev. 500.21

Existing Structure: Structure No.: 026-3059. Single span bridge
with concrete deck on steel beams supported on closed
concrete abutments. 40'± L. x 18'± W. No Skew. To be removed.



BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	250
Porous Granular Embankment	Ton	108
Stone Dumped Riprap, Class A4	Ton	200
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	30.4
Concrete Encasement	Cu Yd	2.8
PPCDB (33" Depth)	Sq Ft	1680
Reinforcement Bars	Pound	4560
Steel Railing, Type S1	Foot	144
Furnishing Steel Piles HP12x53	Foot	475
Driving Piles	Foot	475
Test Pile Steel HP12x53	Each	1
Name Plates	Each	1
Terminal Marker - Direct Applied	Each	4

GENERAL NOTES

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

Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

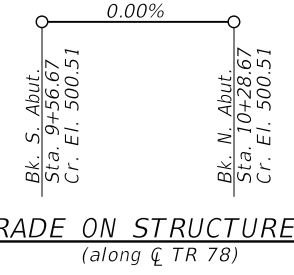
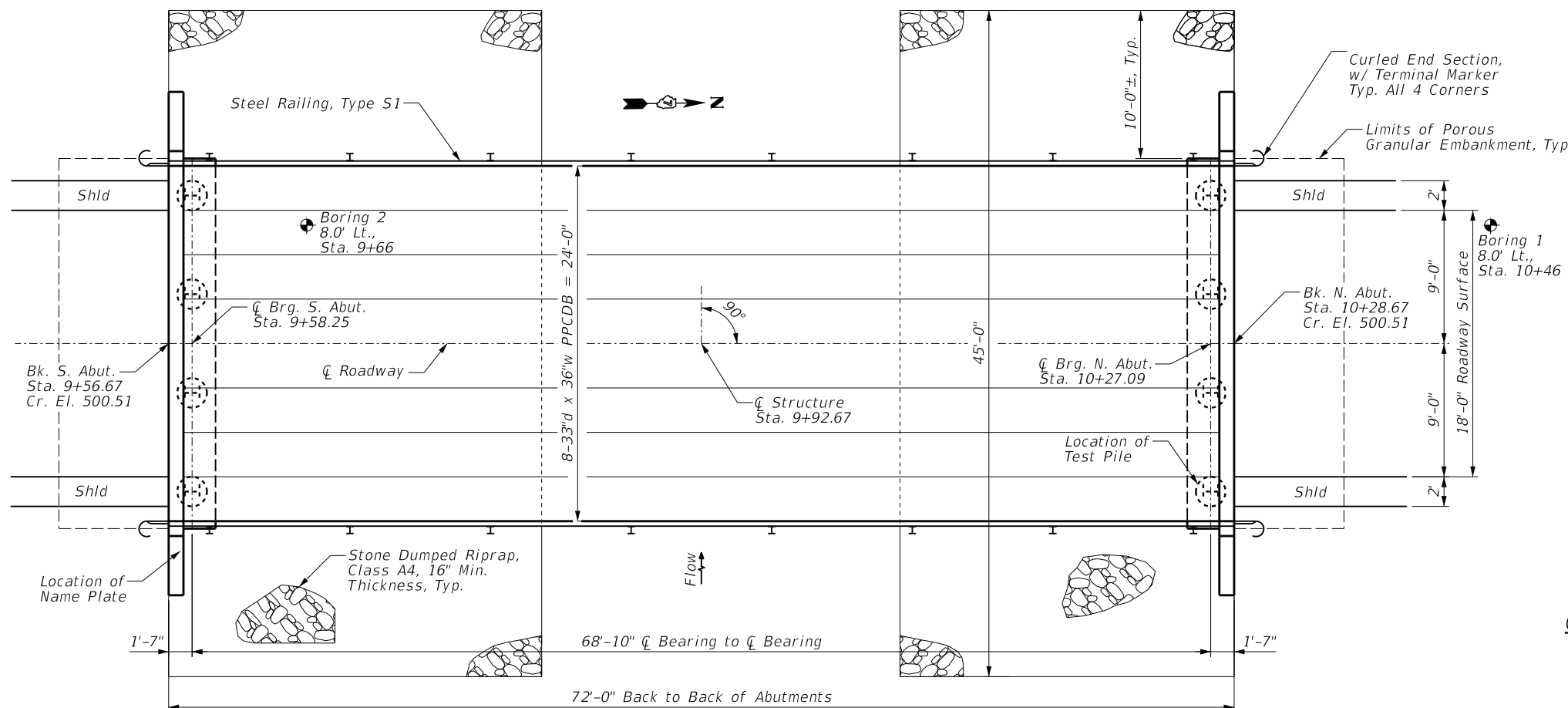
See Specifications for Soil Borings.

Do not scale these drawings.

Reinforcement bars designated (E) shall be epoxy coated.

See Section 502 of the Standard Specifications for Structural Excavation.

The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.



RACCOON CREEK
BUILT 20__ BY
FAYETTE COUNTY
SEC. 19-02130-00-BR
TR 78 STA. 9+92.67
LOADING HL-93
STRUCTURE NO. 026-3478

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

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	15	2340	264	430	496.51	0.59	0.07	497.10	496.58
Base	100	3700	264	473	497.16	1.70	0.25	498.86	497.41
Max. Calc.	500	4970	264	496	497.69	2.27	1.10	499.96	498.79

PLAN

LOADING HL-93
50#/sq. ft. included in dead load for future wearing surface.

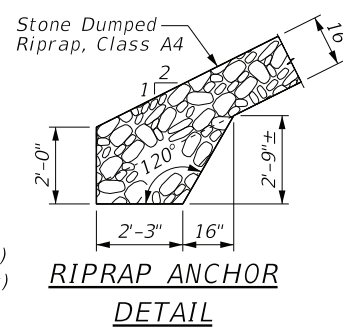
DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications, 2020 (9th Edition)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 3
Soil Site Classification = D
S_{D1} = 0.234 S_{D5} = 0.525

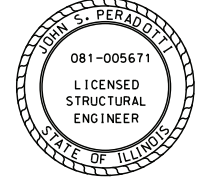
DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

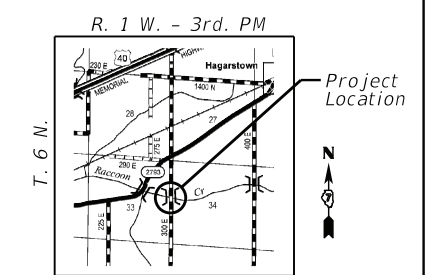
PRECAST PRESTRESSED UNITS
f_c = 6,000 psi
f_{ci} = 5,000 psi
f_{pu} = 270,000 psi (1/2" low lax. strands)
f_{pbt} = 201,960 psi (1/2" low lax. strands)
f_y = 60,000 psi (reinforcement)



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 Specifications for Highway Bridges.



John S. Peradotti 11/7/22
John S. Peradotti
Salem, Illinois
Illinois Licensed Structural Engineer No. 081-005671
Expires Nov. 30, 2022



LOCATION SKETCH

gonzalez
GONZALEZ COMPANIES, LLC
7 CARPENTER DRIVE
SALEM, IL 62881
PHONE (618) 222-2221
www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

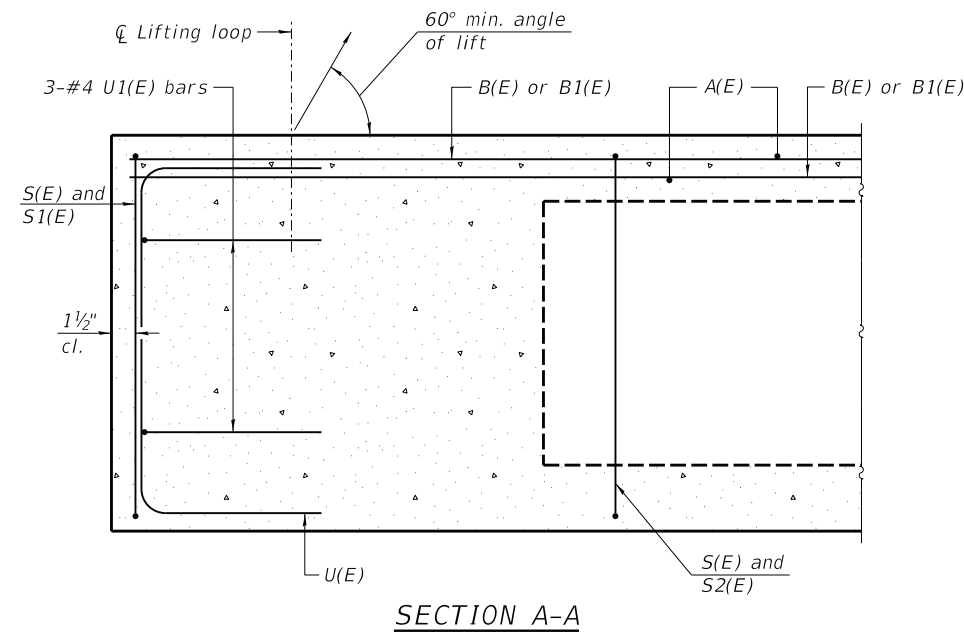
DESIGNED - JSP	REVISED -
DRAWN - JN, JMW	REVISED -
CHECKED - BLT	REVISED -
DATE - 11/07/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

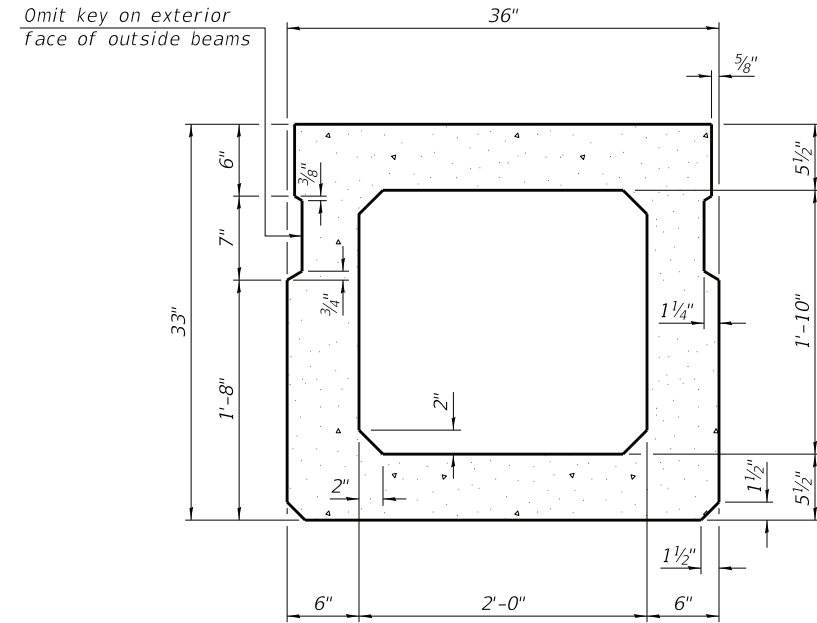
GENERAL PLAN AND ELEVATION
STRUCTURE NO. 026-3478

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	4
			CONTRACT NO. 95929	

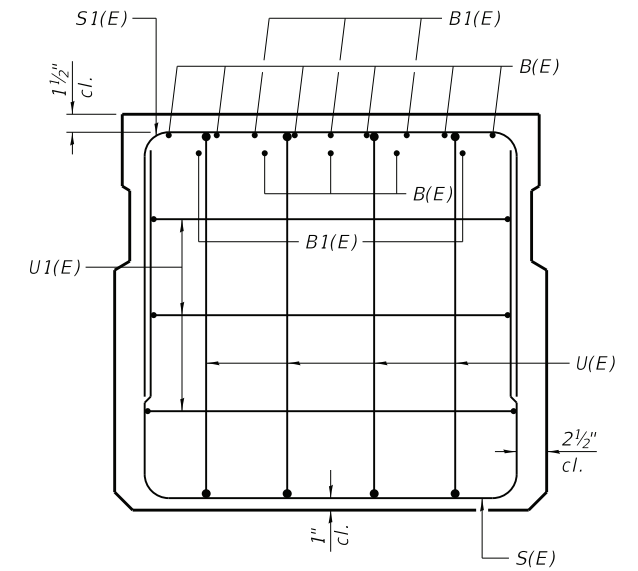
GCL JOB NO. 20-6018



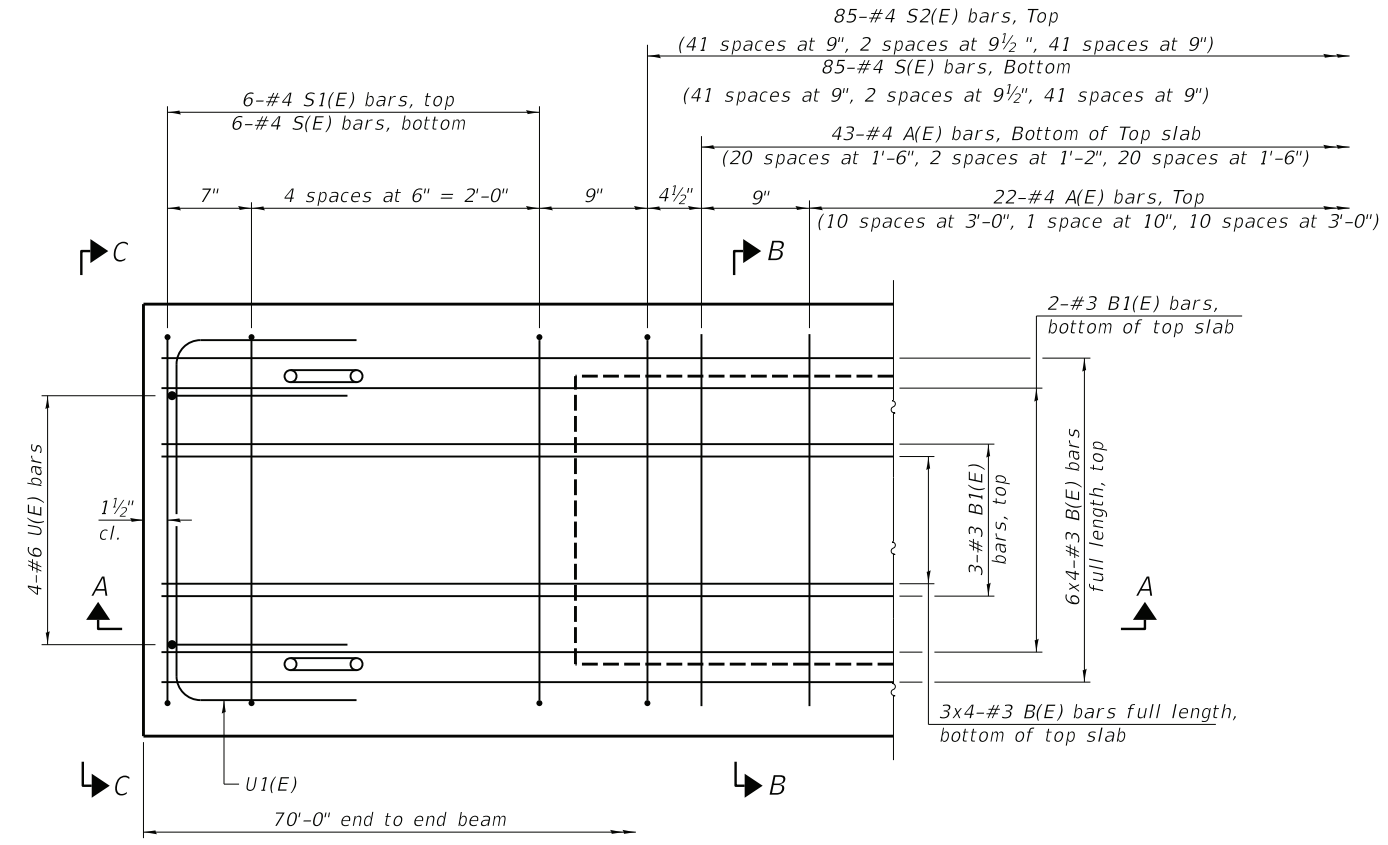
SECTION A-A



SECTION B-B
(Showing dimensions)



VIEW C-C

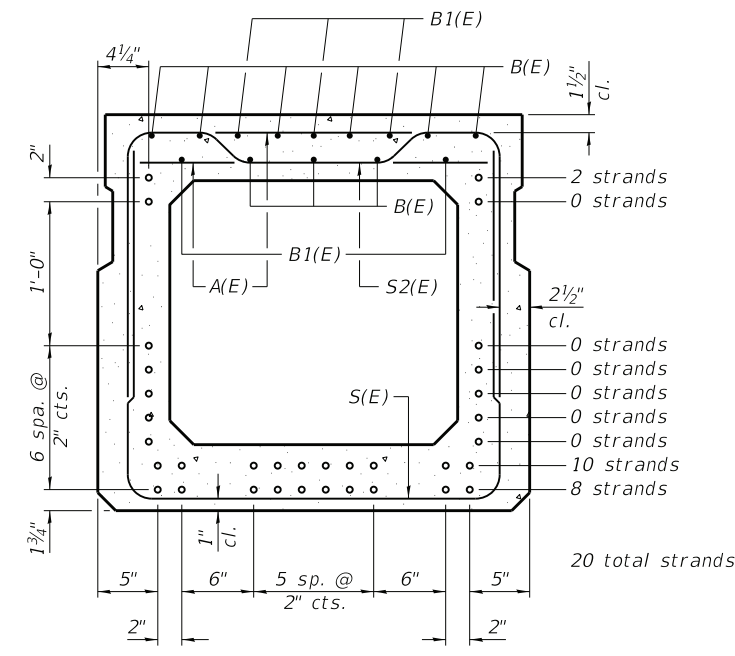


PLAN VIEW

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.

Bars indicated thus: 6x4 -#3 etc. indicates 6 lines of bars with 4 lengths per line.

Similar about ϕ



SECTION B-B

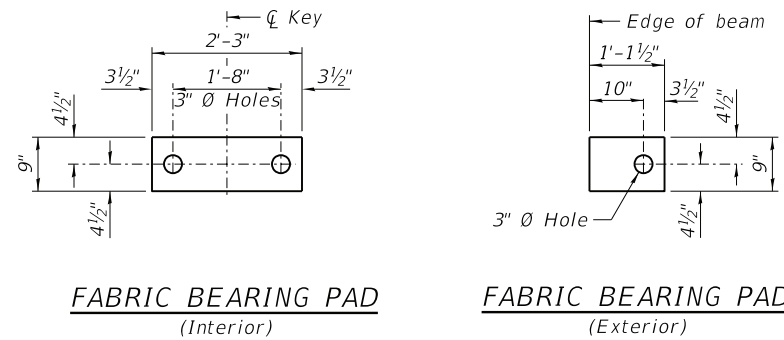
(Showing reinforcement and permissible strand locations)
Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	65	#4	2'-7"	—
B(E)	36	#3	18'-7"	—
B1(E)	10	#3	10'-0"	—
S(E)	97	#4	7'-8"	U
S1(E)	12	#4	6'-5"	U
S2(E)	85	#4	6'-8"	U
U(E)	8	#6	5'-0"	C
U1(E)	6	#4	5'-0"	C

Note: See sheet 6 for additional details and Bill of Material.

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

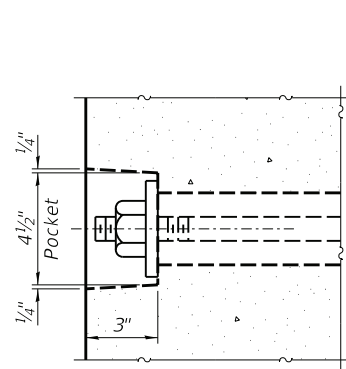


FABRIC BEARING PAD
(Interior)

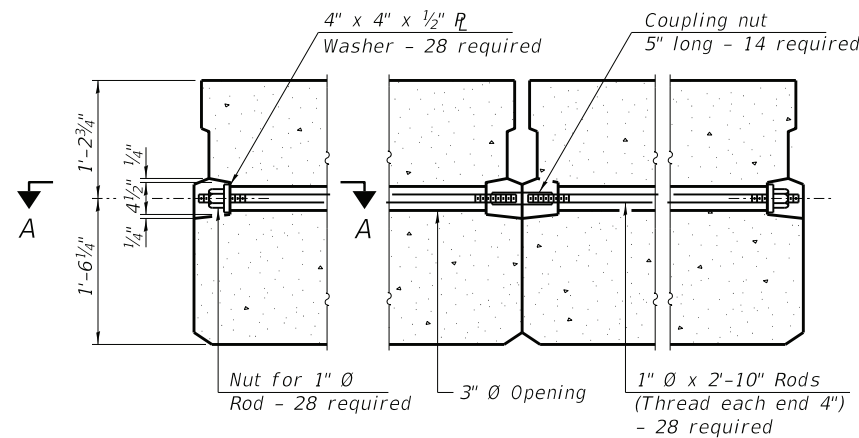
FABRIC BEARING PAD
(Exterior)

FIXED

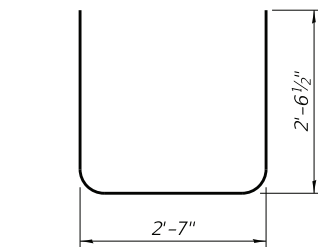
Notes: All bearing pads shall be 1" thick.



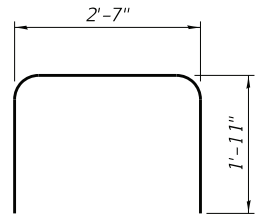
SECTION A-A



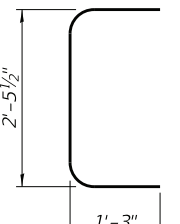
TYPICAL TRANSVERSE TIE ASSEMBLY



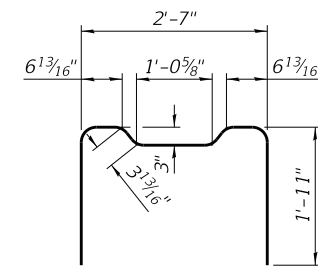
BAR S(E)



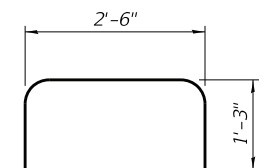
BAR S1(E)



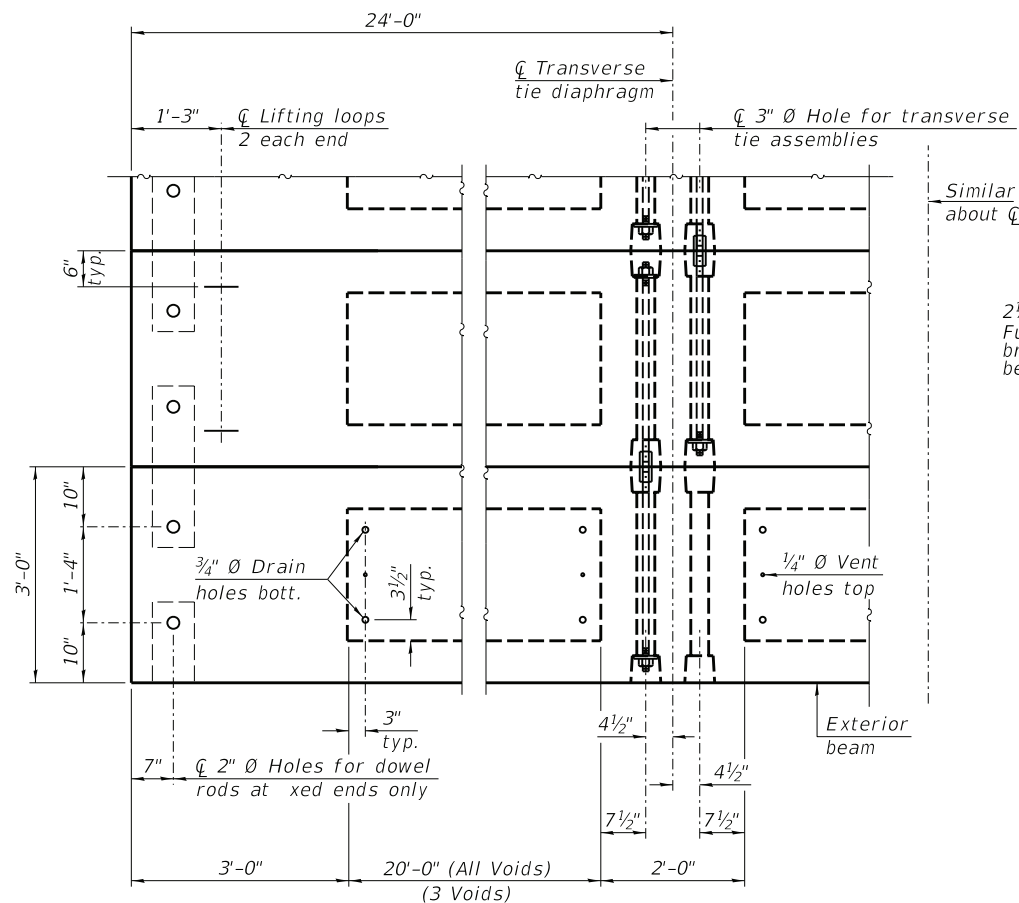
BAR U(E)



BAR S2(E)

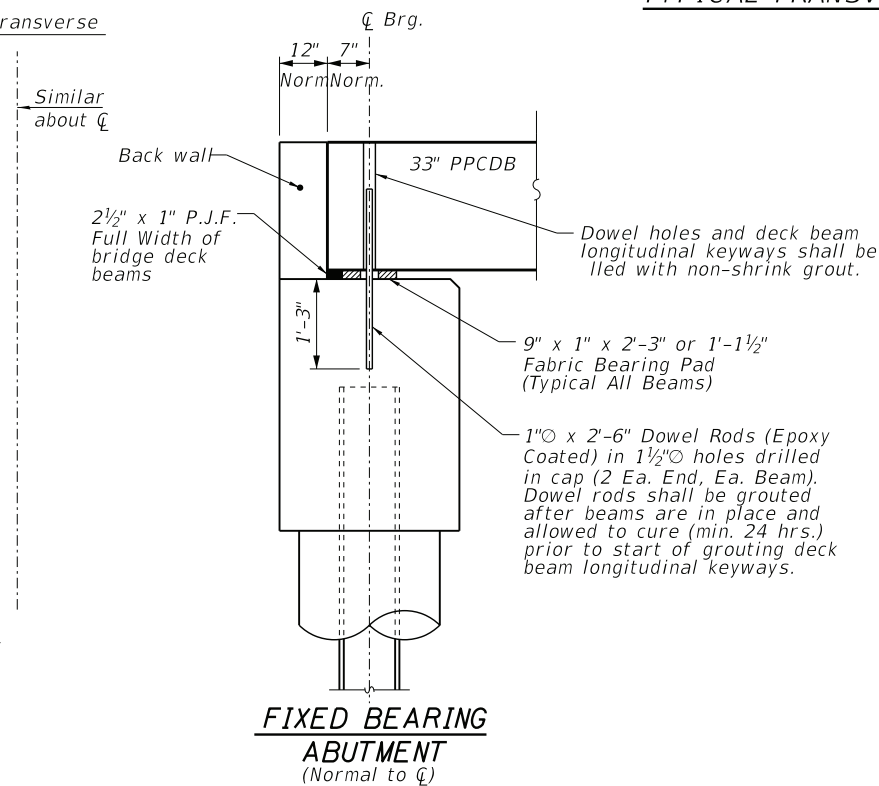


BAR U1(E)

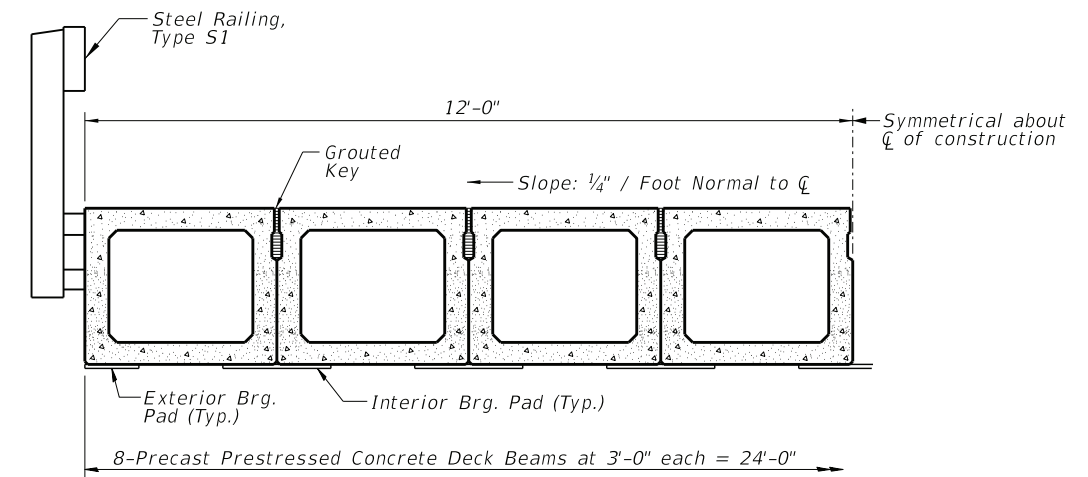


PLAN VIEW

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

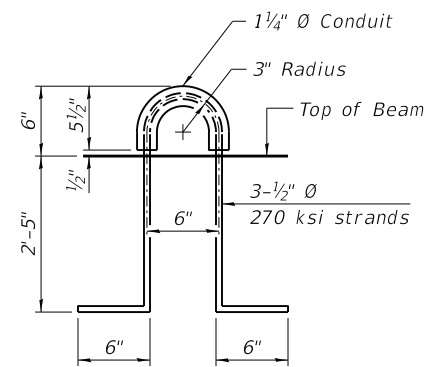


FIXED BEARING ABUTMENT
(Normal to C)



HALF CROSS SECTION

See Sheet 7 for the details showing the spacing and mounting of posts and rails to the PPCDB.



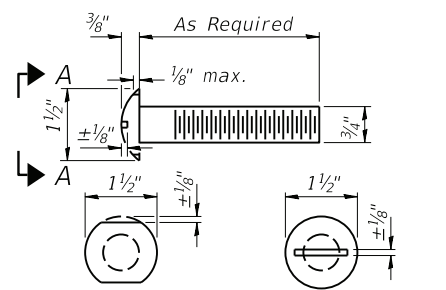
LIFTING LOOP DETAIL

NOTES

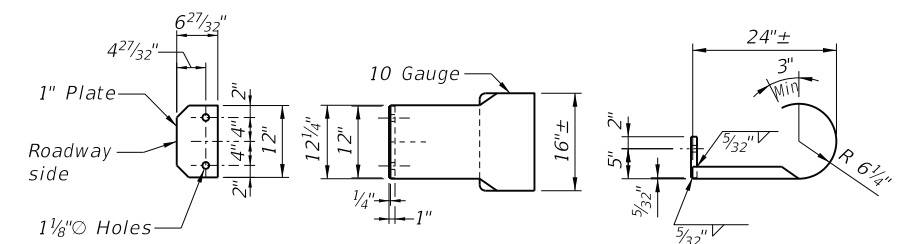
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets 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.
- Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL Modified)

BILL OF MATERIAL

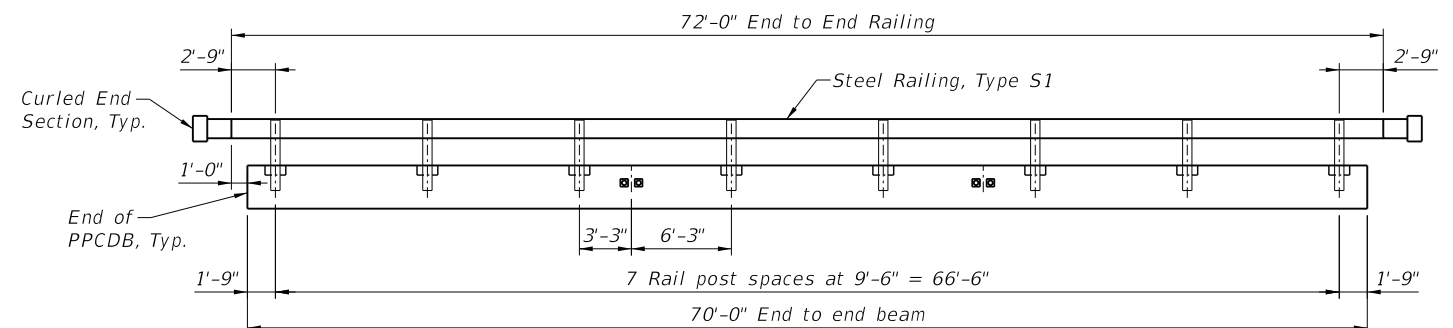
Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft.	1680
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VIEW A-A
ROUND HEAD BOLT

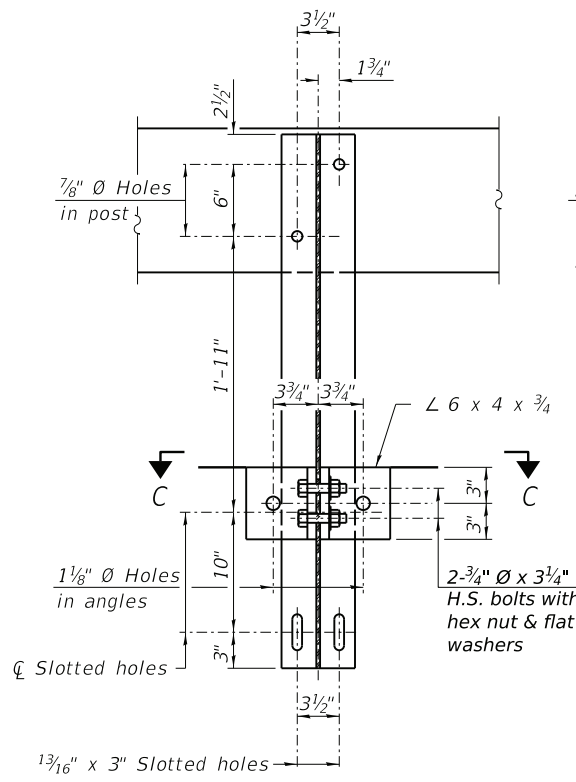


CURLLED END SECTION DETAILS
4 Each Req'd



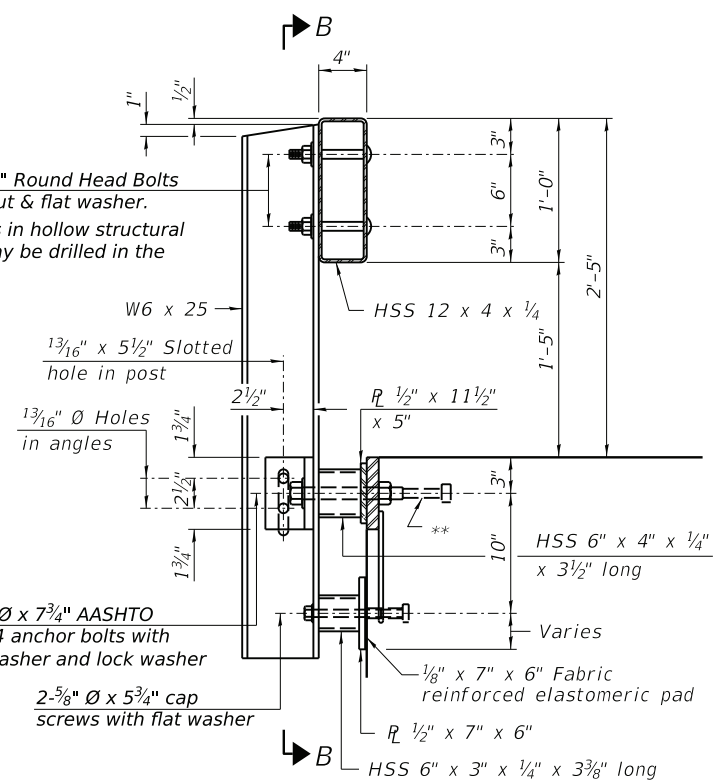
ELEVATION

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

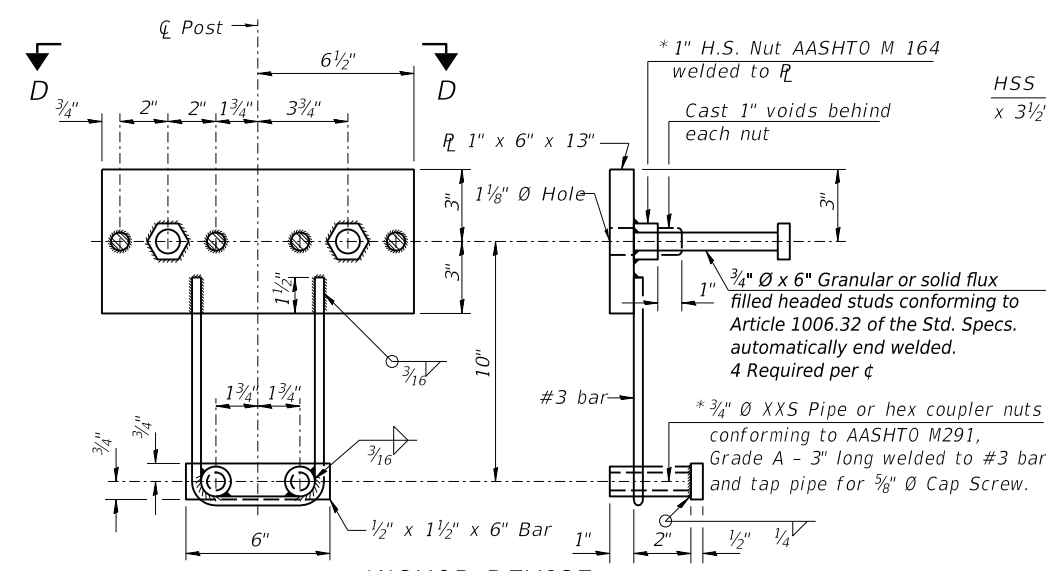


SECTION B-B

2-3/4" Ø x 6" Round Head Bolts with locknut & flat washer.
7/8" Ø holes in hollow structural section may be drilled in the field.

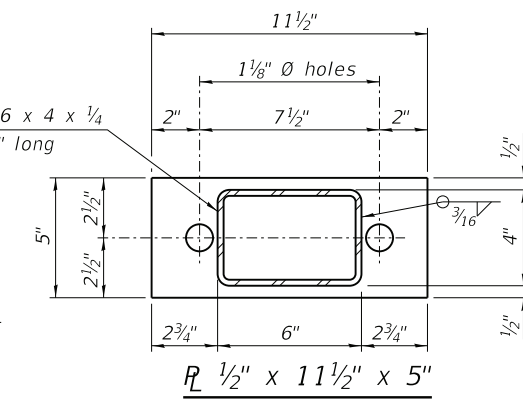


SECTION AT RAILING POST

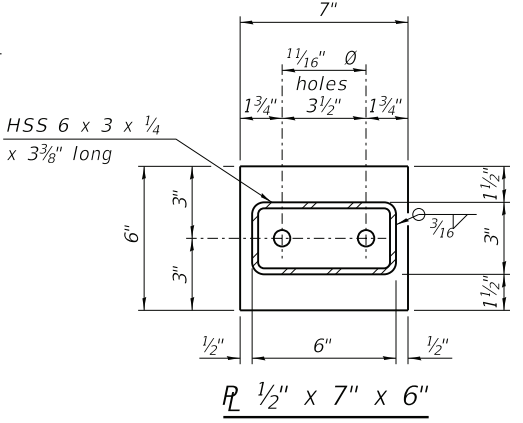


ANCHOR DEVICE

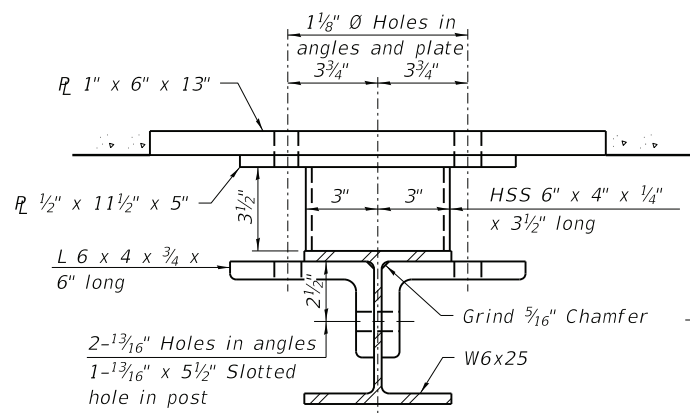
* Threaded areas shall be plugged or blocked off during casting of beam.



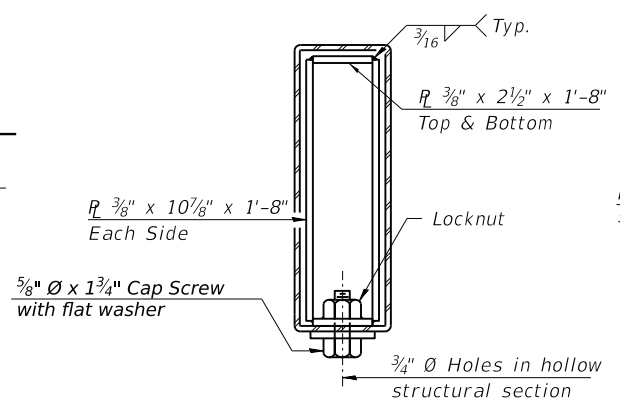
R 1/2" x 11 1/2" x 5"



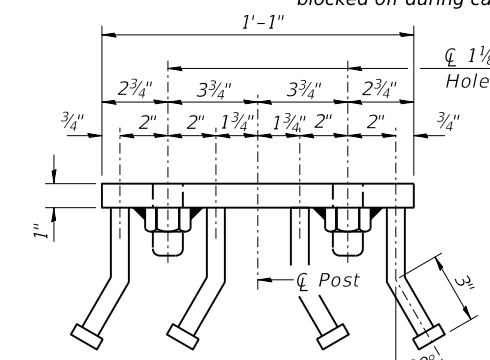
R 1/2" x 7" x 6"



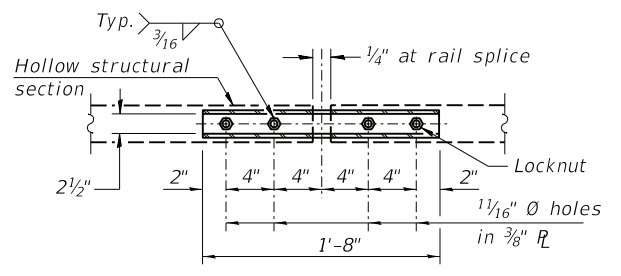
SECTION C-C



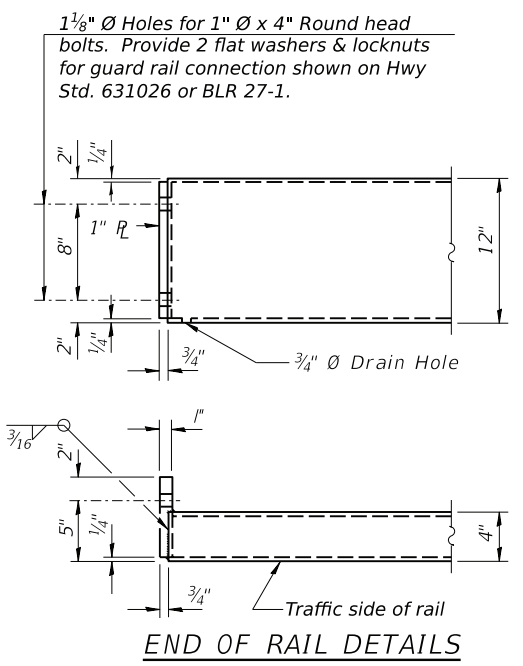
SECTIONS AT RAIL SPLICE



VIEW D-D



PLAN-BOTT. SPLICE R TYPICAL



END OF RAIL DETAILS

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
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. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	144



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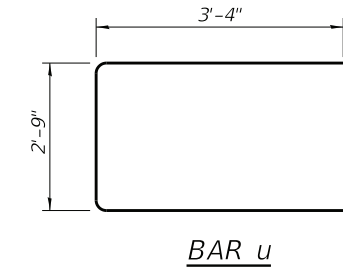
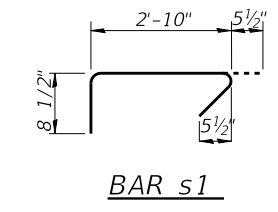
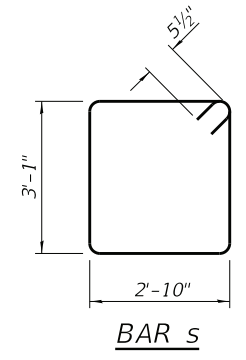
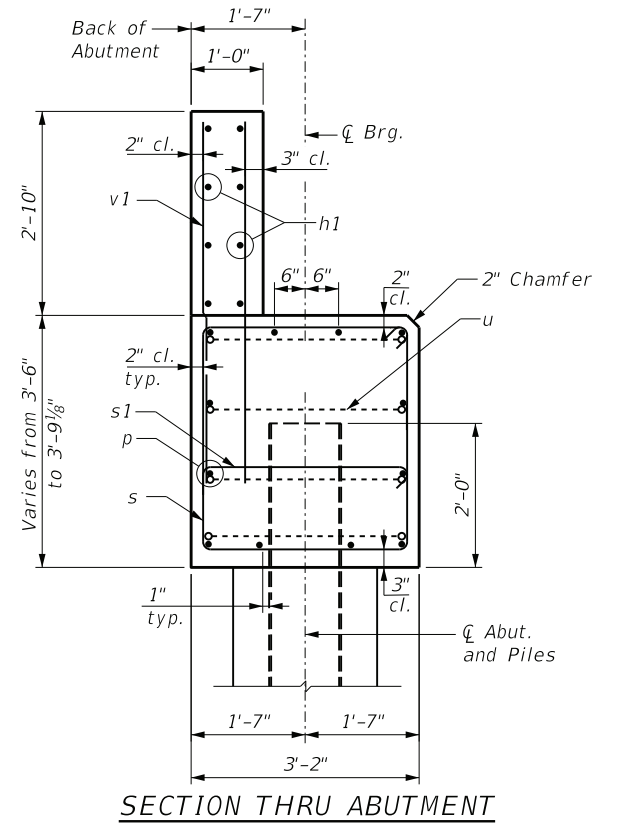
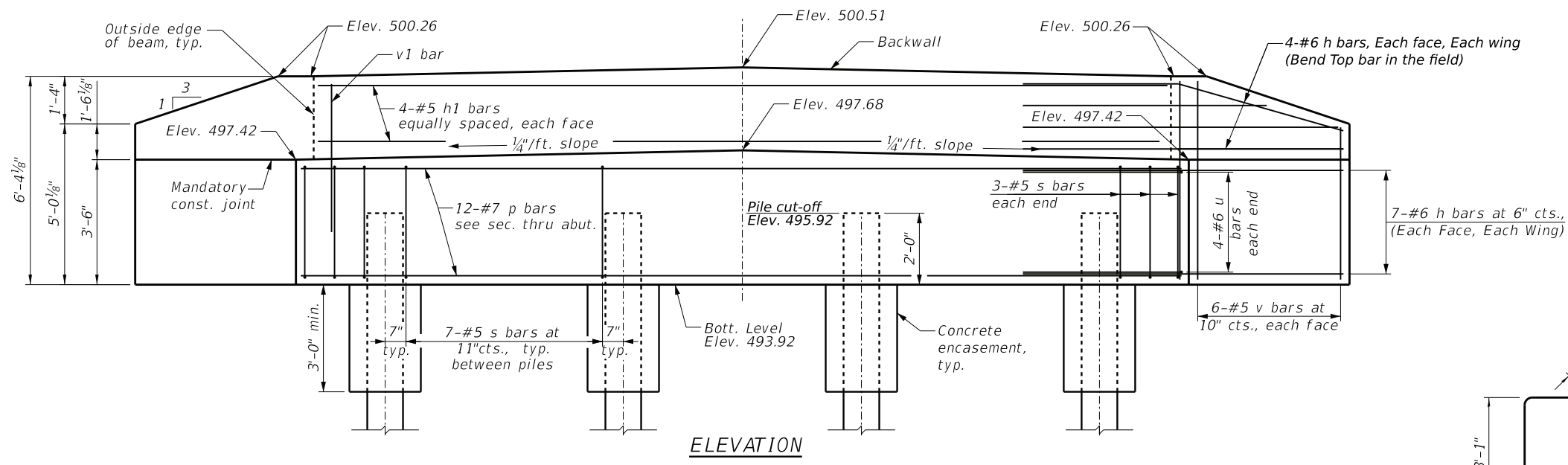
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DRAWN - JN, JMW	REVISED -
CHECKED - BLT	REVISED -
DATE - 11/07/2022	REVISED -

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STEEL RAILING, TYPE S1 DETAILS

GCL JOB NO. 20-6018

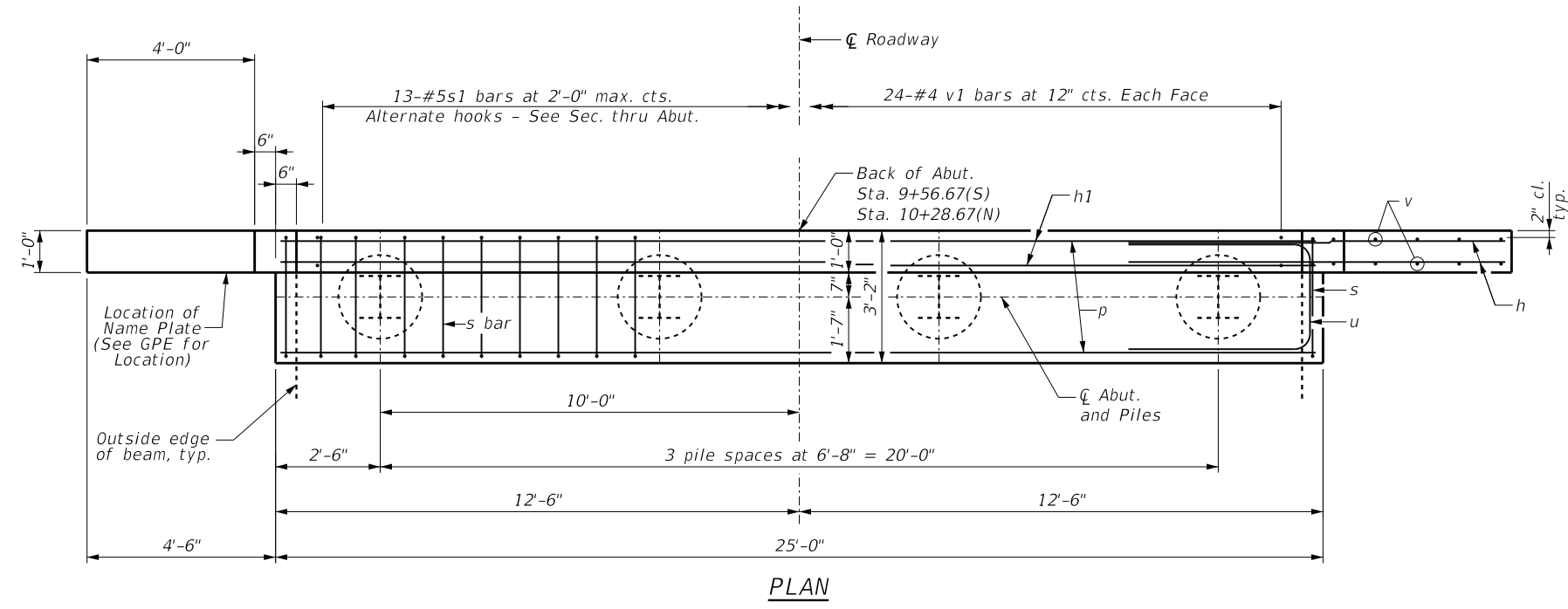
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	7
			CONTRACT NO. 95929	



BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape	
h	44	#6	8'-6"	—	
h1	8	#5	23'-8"	—	
p	12	#7	24'-8"	—	
s	27	#5	12'-9"	□	
s1	13	#5	4'-0"	U	
u	8	#6	9'-5"	U	
v	24	#5	6'-0"	Cut in Field	
v1	48	#5	4'-10"	—	
Concrete Structures				Cu Yd	15.2
Concrete Encasement				Cu Yd	1.4
Reinforcement Bars				Pound	2280
*Furnishing Steel Piles HP12x53				Foot	475
*Driving Piles				Foot	475
*Test Pile Steel HP12x53				Each	1

*Total for 2 Abtments
Notes:
For details of piles and Concrete Encasement, see sheet 9.



GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modi ed).
All exposed edges shall have standard 3/4" chamfer, unless otherwise noted or as directed by the Engineer.
All clearances between rebar and form surface shall be 2", unless otherwise noted.
Space reinforcement in cap to miss PPCDB dowel rods.
The Steel H-piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive one (1) Test Pile of the size indicated in a permanent location as shown on the plans or as directed by the Engineer before ordering the remainder of the piles.
The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.
The back wall and portion of the wingwalls above the construction joint shall be cast against the in-place deck beams.
The position of the 90° & 135° hooked ends of the s1 bar shall be alternated between adjacent bars.

PILE DATA SOUTH ABUTMENT

Type: Steel HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 67'/pile
No. Production Piles: 4
No. Test Piles: 0

PILE DATA NORTH ABUTMENT

Type: Steel HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 69'/pile
No. Production Piles: 3
No. Test Piles: 1

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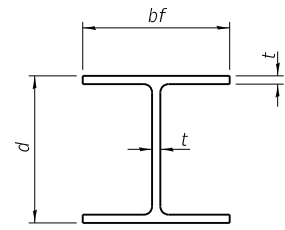
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DRAWN -	JN, JMW	REVISED -	
CHECKED -	BLT	REVISED -	
DATE -	11/07/2022	REVISED -	

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ABUTMENT DETAILS

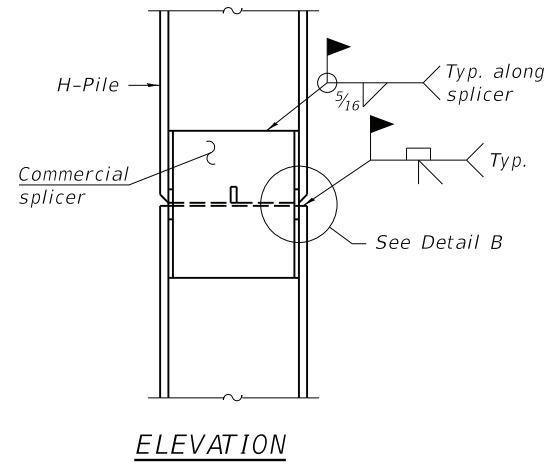
GCL JOB NO. 20-6018

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	8
			CONTRACT NO. 95929	

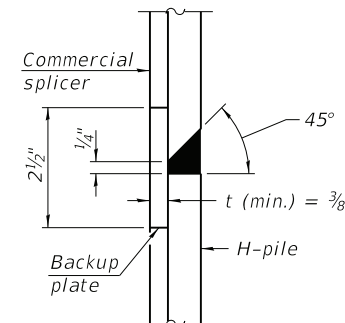


STEEL PILE TABLE

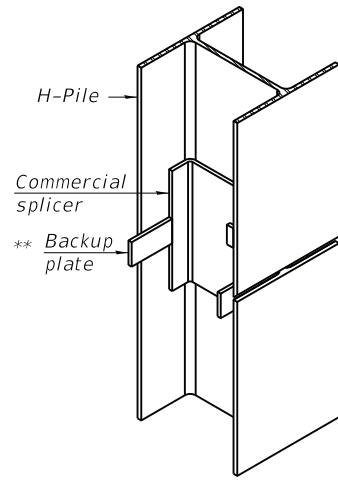
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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

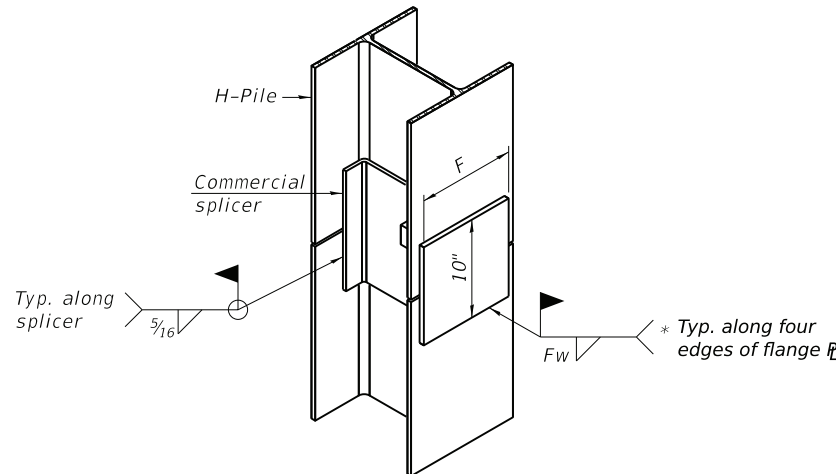


DETAIL "B"



ISOMETRIC VIEW

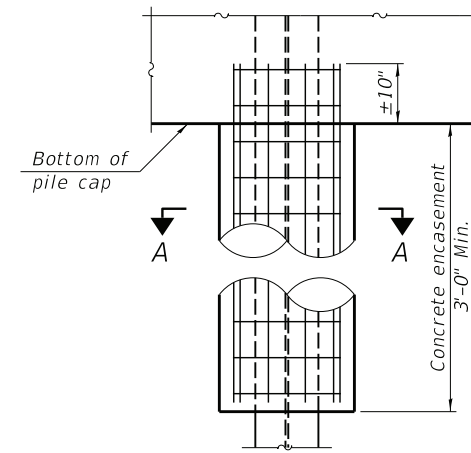
WELDED COMMERCIAL SPLICE



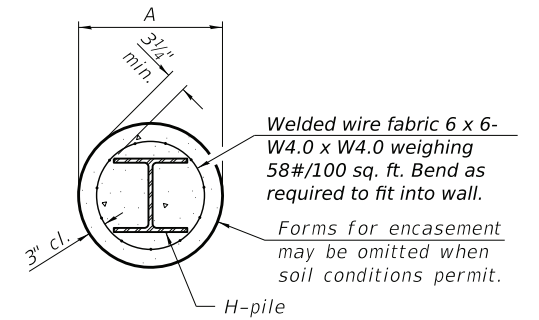
ISOMETRIC VIEW

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.).

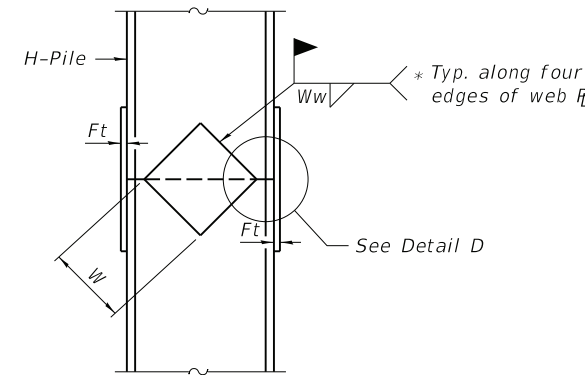


ELEVATION

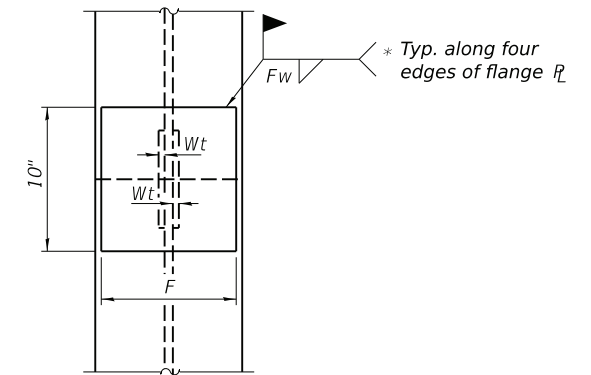


SECTION A-A

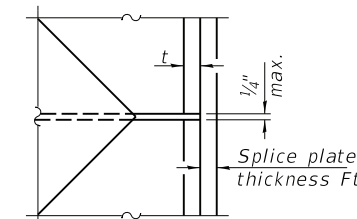
INDIVIDUAL PILE CONCRETE ENCASUREMENT
(when speci ed)



ELEVATION



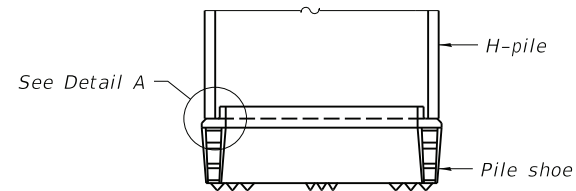
END VIEW



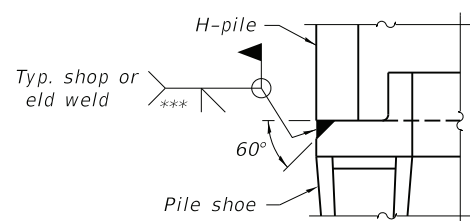
DETAIL D

WELDED PLATE FIELD SPLICE

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"



ELEVATION



DETAIL A

SHOE ATTACHMENT

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



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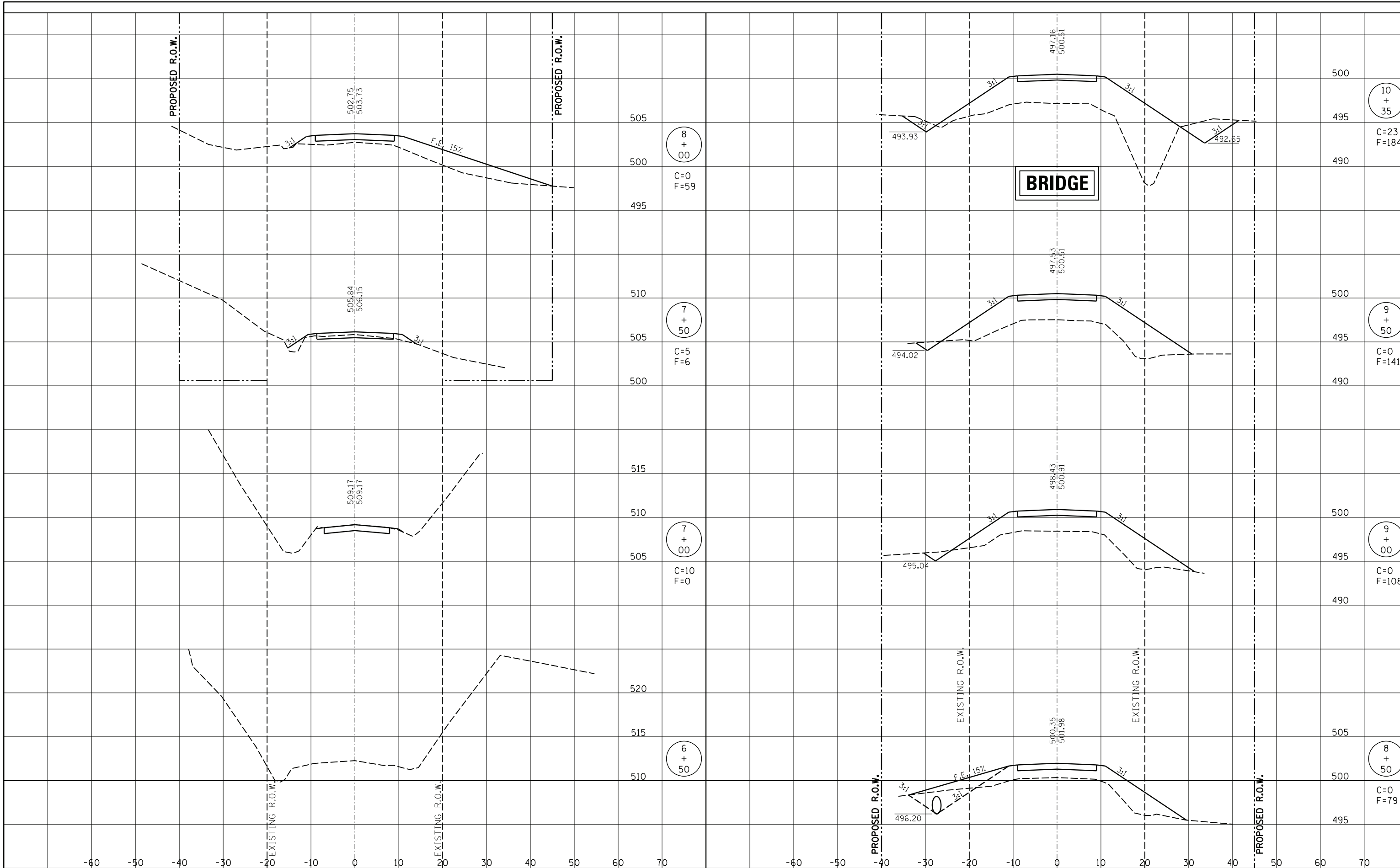
HP PILE DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 78	19-02130-00-BR	FAYETTE	11	9
			CONTRACT NO. 95929	

GCL JOB NO. 20-6018

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

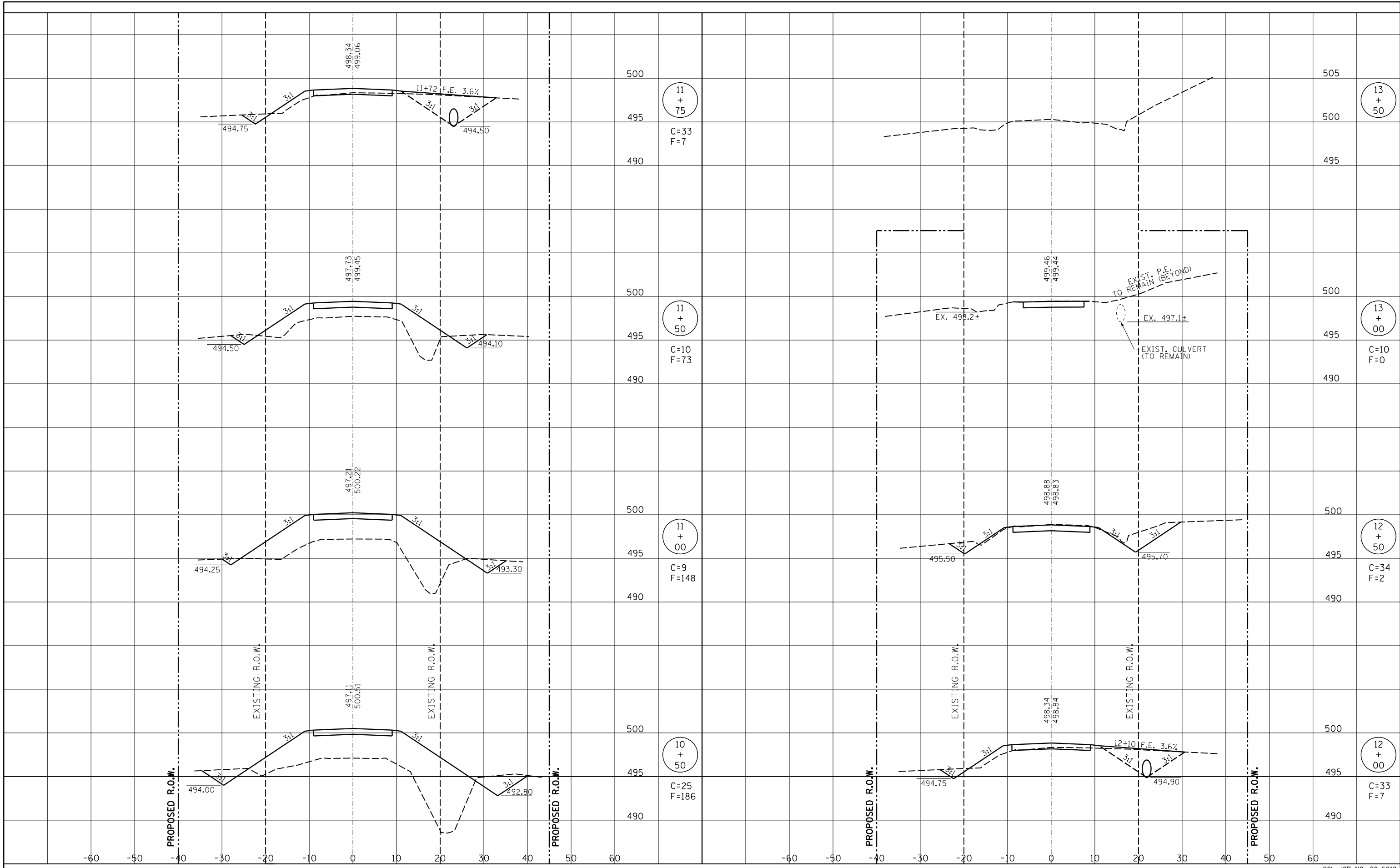
ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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		DRAWN - JN, KMA, JMW	REVISED -			STA. 6+50 TO STA. 10+35					
		CHECKED - BLT	REVISED -								
		DATE - 11/07/2022	REVISED -								

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

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
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	AREAS CHECKED	
	AREAS CHECKED	



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		CHECKED - BLT	REVISED -			CONTRACT NO. 95929				
		DATE - 11/07/2022	REVISED -			GCL JOB NO. 20-6018				