

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAS 1901 (SPILLWAY RD)
SECTION 19-00158-00-BR
PROJECT BH9V(830)
BRIDGE REPLACEMENT
WILLIAMSON COUNTY

C-99-047-20

INDEX OF SHEETS

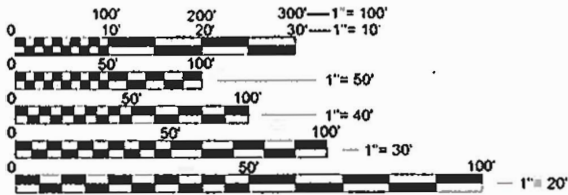
- 1 COVER SHEET
- 2 GENERAL NOTES, SUMMARY OF QUANTITIES
- 3 PLAN AND PROFILE
- 4-10 STRUCTURE PLANS
- 11 CROSS SECTIONS

HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 515001-04 NAME PLATES FOR BRIDGES
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 780001-05 TYPICAL PAVEMENT MARKINGS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 22-7 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITIES

ELECTRIC: AMEREN ILLINOIS
WATER:
TELEPHONE: FRONTIER

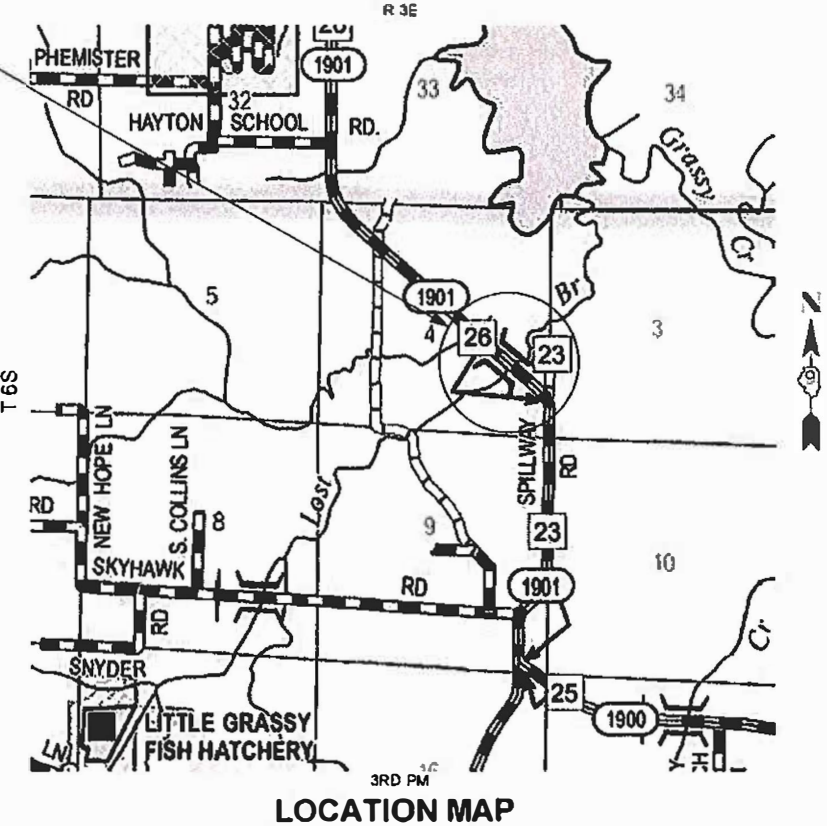


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

Brian C. Giltner
BRIAN GILTNER, P.E., S.E.
LICENSE EXPIRES 11/30/2023

HLC PROJECT NO. 7497
HLC FIELD BOOK NO.
CONTRACT NO. 99672



THE PROPOSED IMPROVEMENT CONSISTS OF REMOVAL OF EXISTING BRIDGE DECK AND REPLACEMENT WITH A PPC DECK BEAM BRIDGE, 34'-2" CLEAR SPAN, AND OTHER MINOR COLLATERAL WORK.

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
1901	19-00158-00-BR	Williamson	11	1
COUNTY LUT ROAD DISTRICT			ILLINOIS CONTRACT NO.	99672



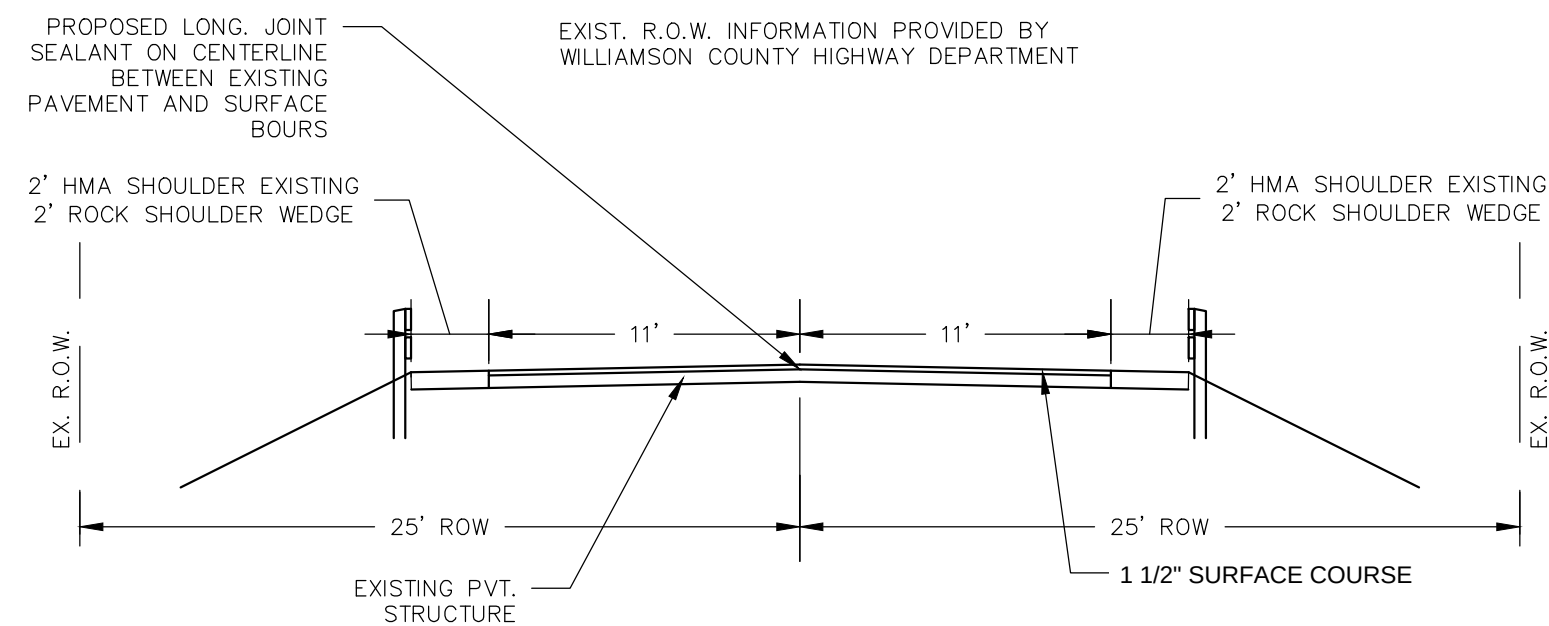
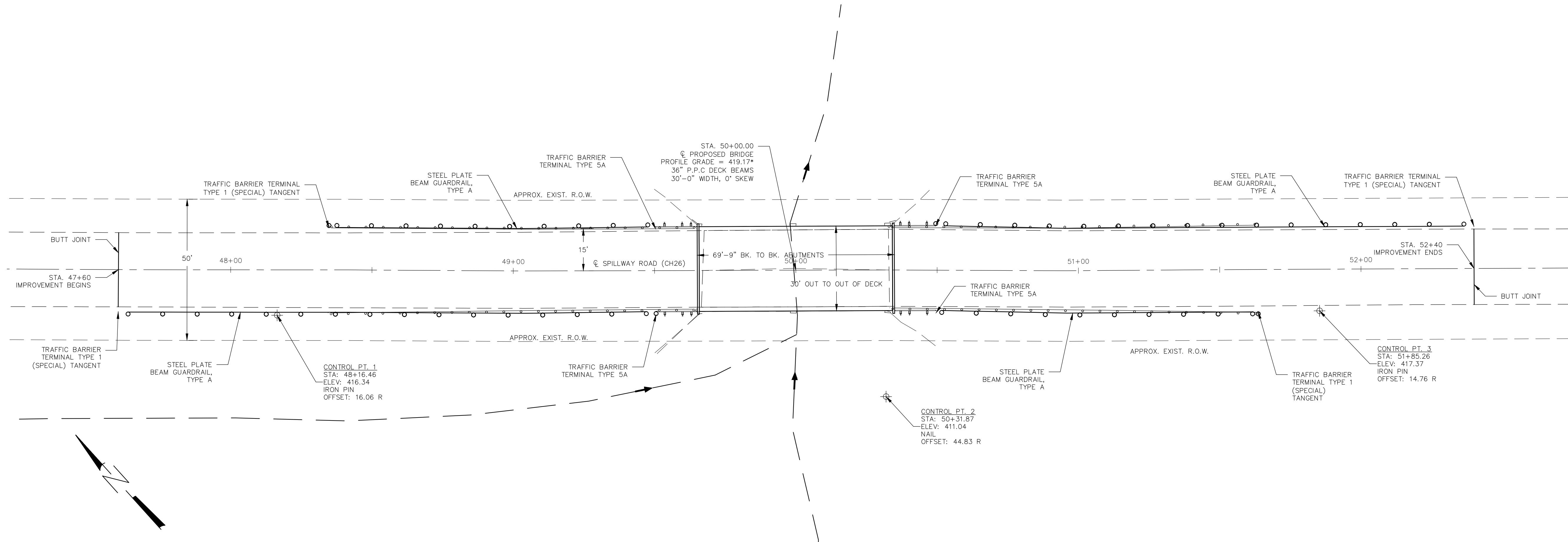
FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR (RURAL)
2014 ADT = 900
DESIGN SPEED = 50 MPH

APPROVED DECEMBER 27 20 21
COUNTY ENGINEER
PASSED 2/23 20 22
DISTRICT ENGINEER OF LOCAL ROADS AND STREETS
Releasing For Bid Based on Limited Review 2-23 20 22
Snyder, Travis DH
ACTING DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR, IL BENTON, IL
SCHLAUBURG, IL CHAMPAIGN, IL
ROCKFORD, IL LAFAYETTE, IL
PADUCAH, KY
(855) 424-2782
184-001397

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



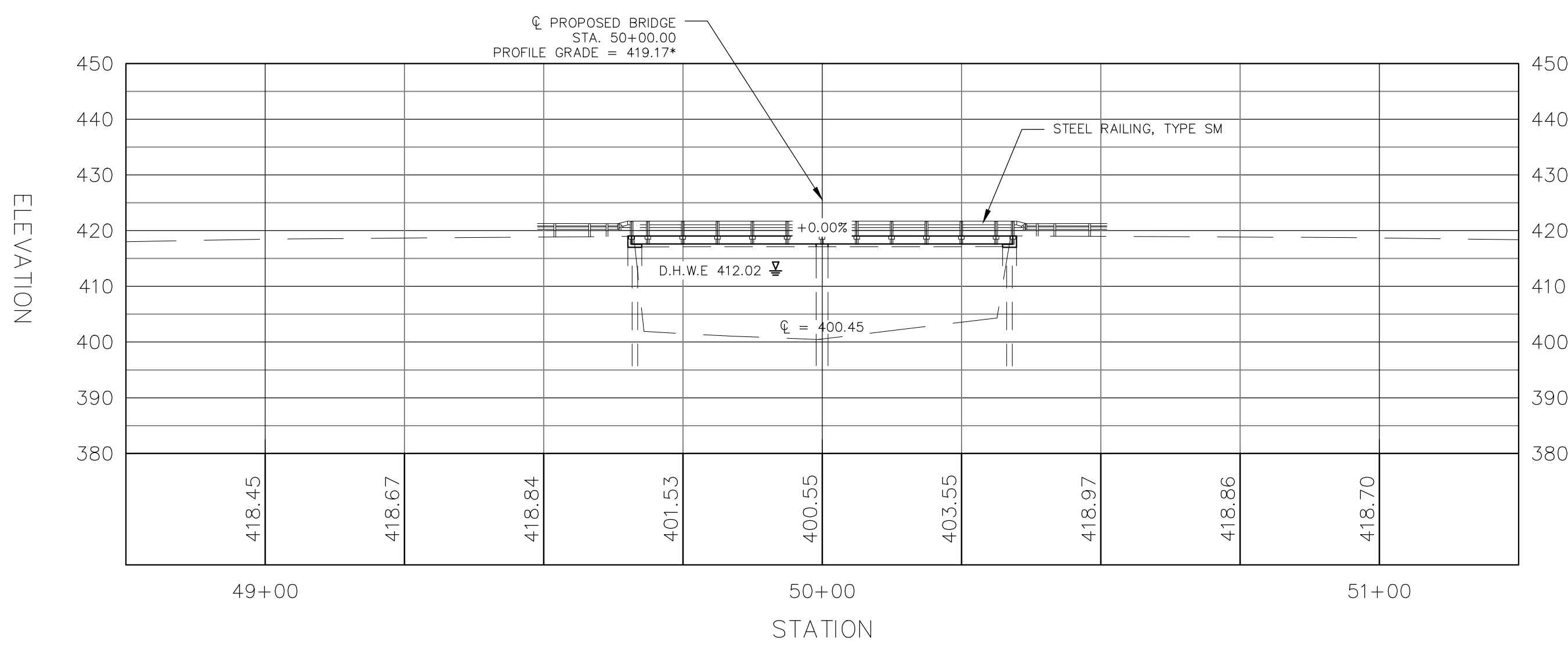
Typical Roadway Section

NOT TO SCALE
STA 47+30 TO STA 49+65.13 AND STA 50+34.88 TO STA 52+40

CONTROL POINT DATA						
CP #	TYPE	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	IRON PIN	48+16.46	16.06R	416.34	368623.66	762490.32
2	NAIL	50+31.87	44.83R	411.04	368457.44	762630.46
3	IRON PIN	51+85.26	14.76R	417.37	368376.76	768764.40

Spillway Road (CH26)

Plan
SCALE: 1" = 20'



Spillway Road (CH26) Profile View

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

BILL OF MATERIAL

Pay Item	Description	Unit	Total
40604002	HMA SC IL-9.5FG "C" N70	Ton	129
40600290	Bituminous Material (Tack Coat)	Pound	638
48101200	Aggregate Shoulders, Type B	Ton	186
63000003	Steel Plate Guardrail, Type A, 9 Foot Posts	Foot	611
63100075	Traffic Barrier Terminal, Type 5A	Each	4
63100167	Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	4
63200310	Guardrail Removal	Foot	521
72501000	Terminal Marker - Direct Applied	Each	4
78001110	Paint Pavement Marking - Line 4"	Foot	1080
X2501020	Seeding, Class 2A (Special)	Acre	0.50
40600370	Longitudinal Joint Sealant	Foot	480

ELEVATION REFERENCED TO CONTROL
POINTS 1, 2, AND 3.

USER NAME =	DESIGNED BCG/DMG	REVISED -
	DRAWN DMG	REVISED -
PLOT SCALE = AS SHOWN ON PLANS	CHECKED BCG	REVISED -
PLOT DATE =	DATE 7-2-21	REVISED -

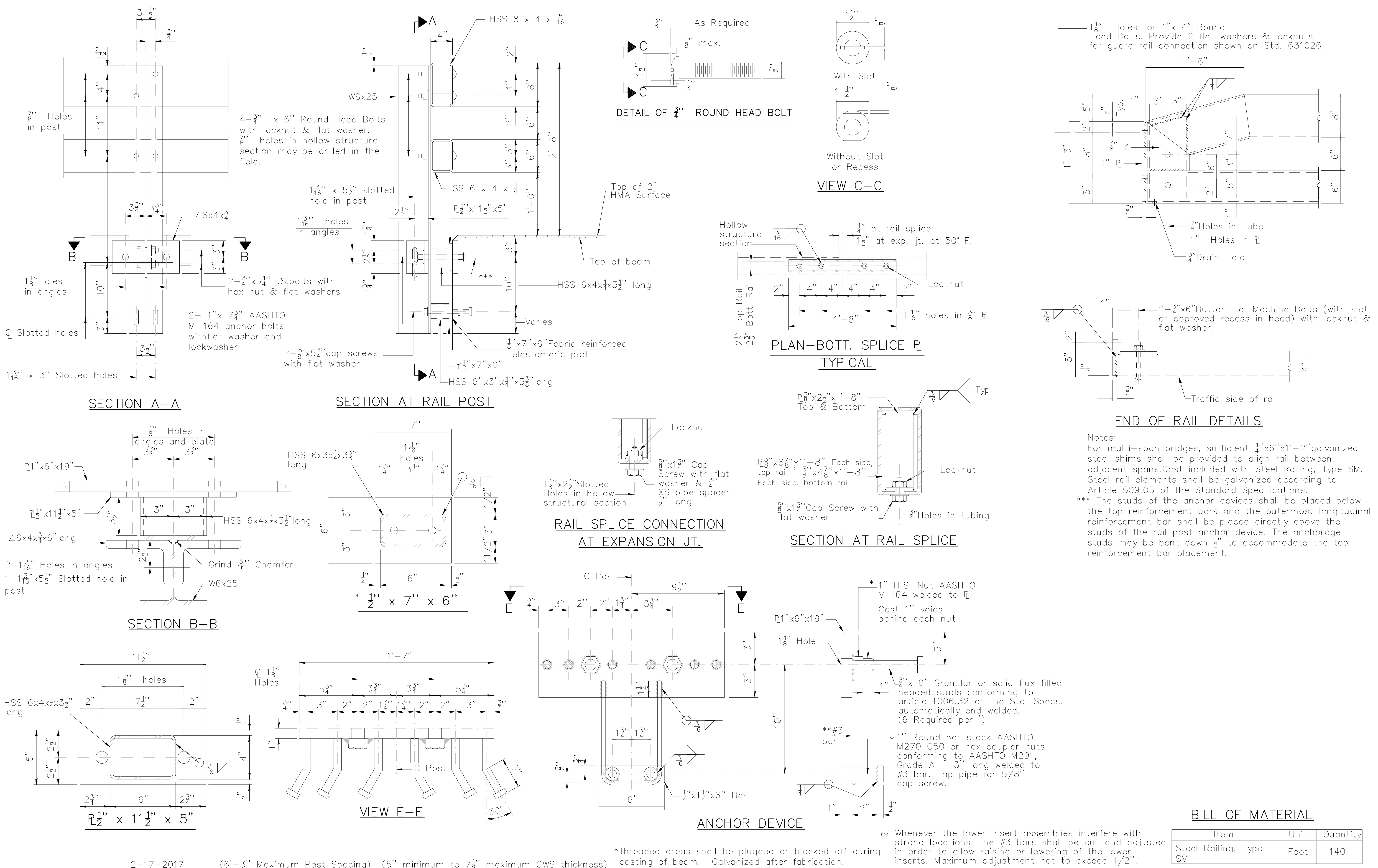
CHASTAIN
& ASSOCIATES LLC
CONSULTING ENGINEERS

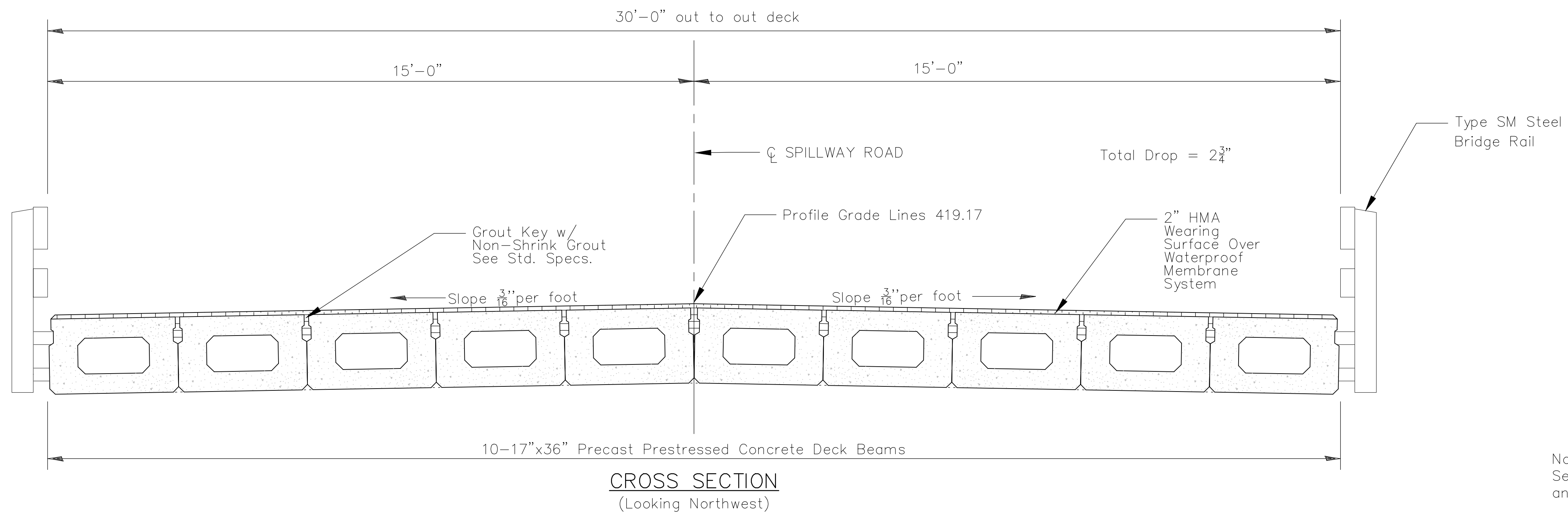
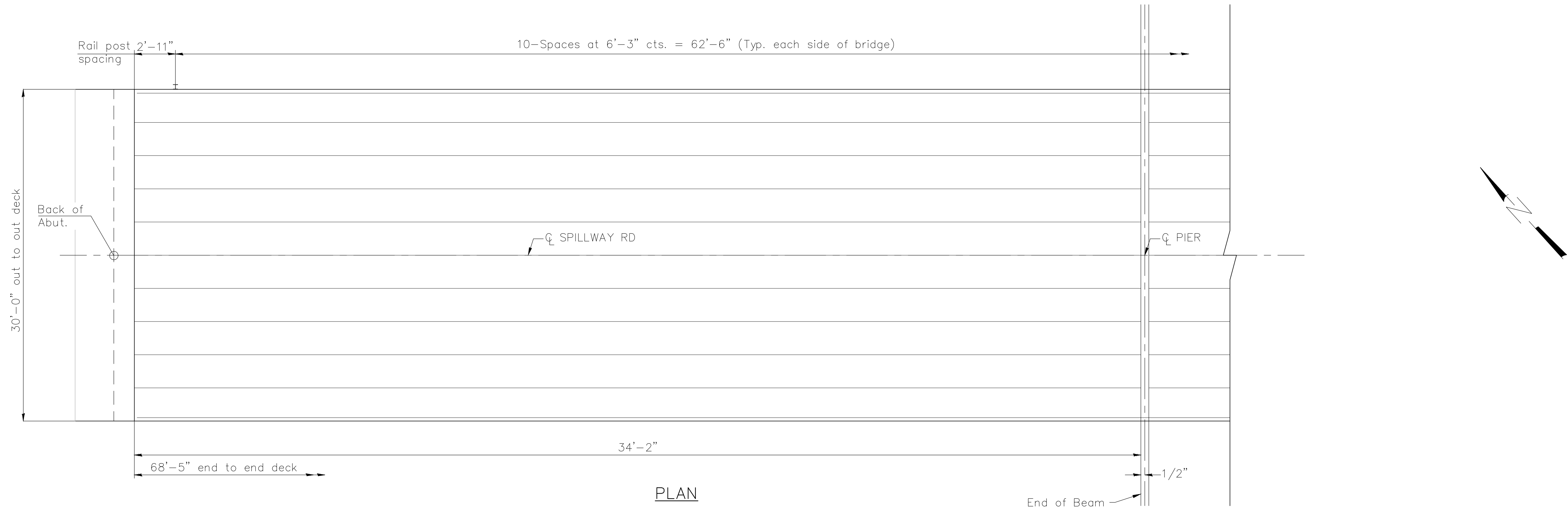
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
BENTON (618) 435-4400
184-001397

PLAN & PROFILE
SPILLWAY ROAD OVER LITTLE GRASSY CREEK

SCALE: 1" = 20' SHEET NO. 3 OF 11 SHEETS STA. 47+60 TO STA. 52+40

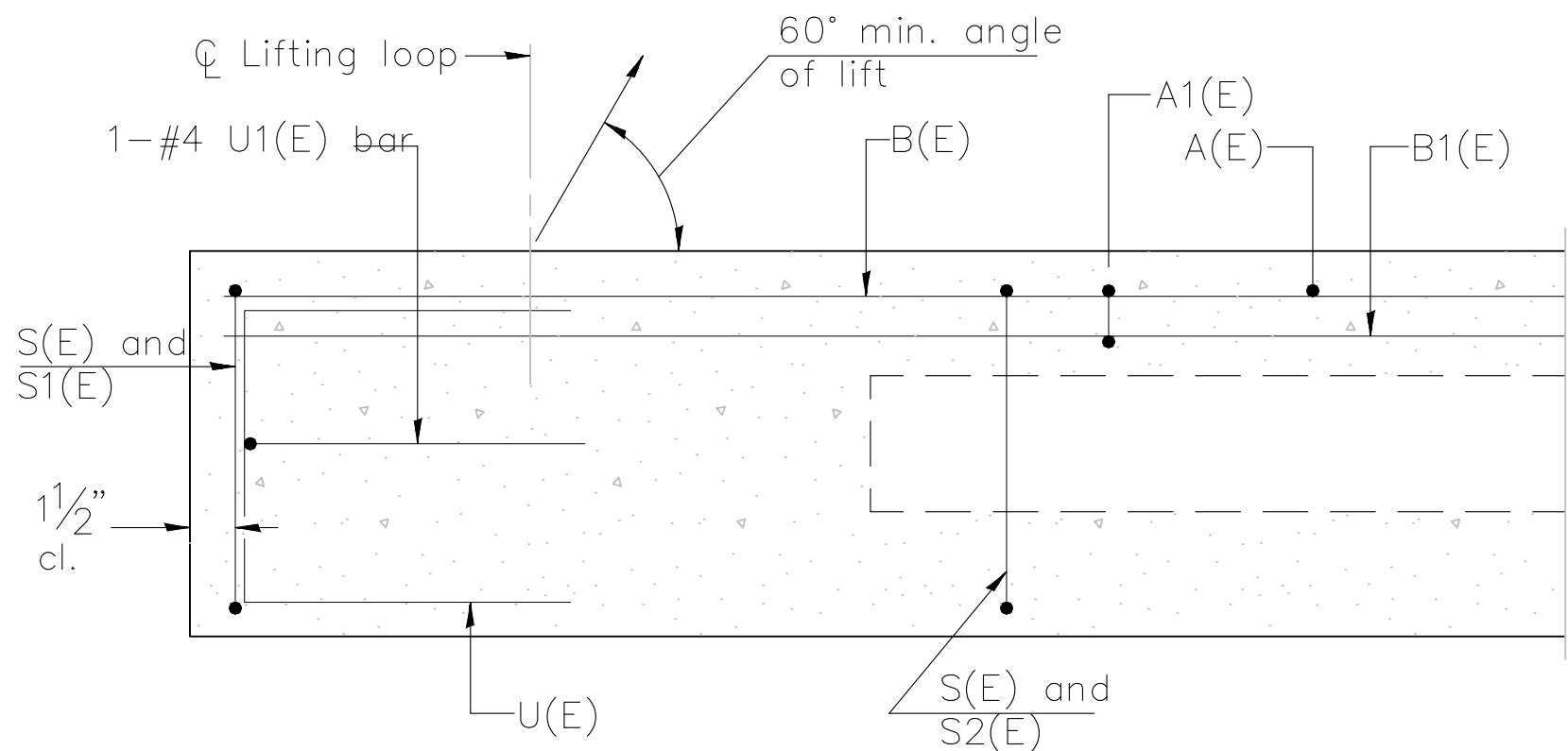
CH	PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
26	C-99-047-20	WILLIAMSON	11	3
CONTRACT NO. 99672				
ILLINOIS FED. AID PROJECT BH8V(830)				



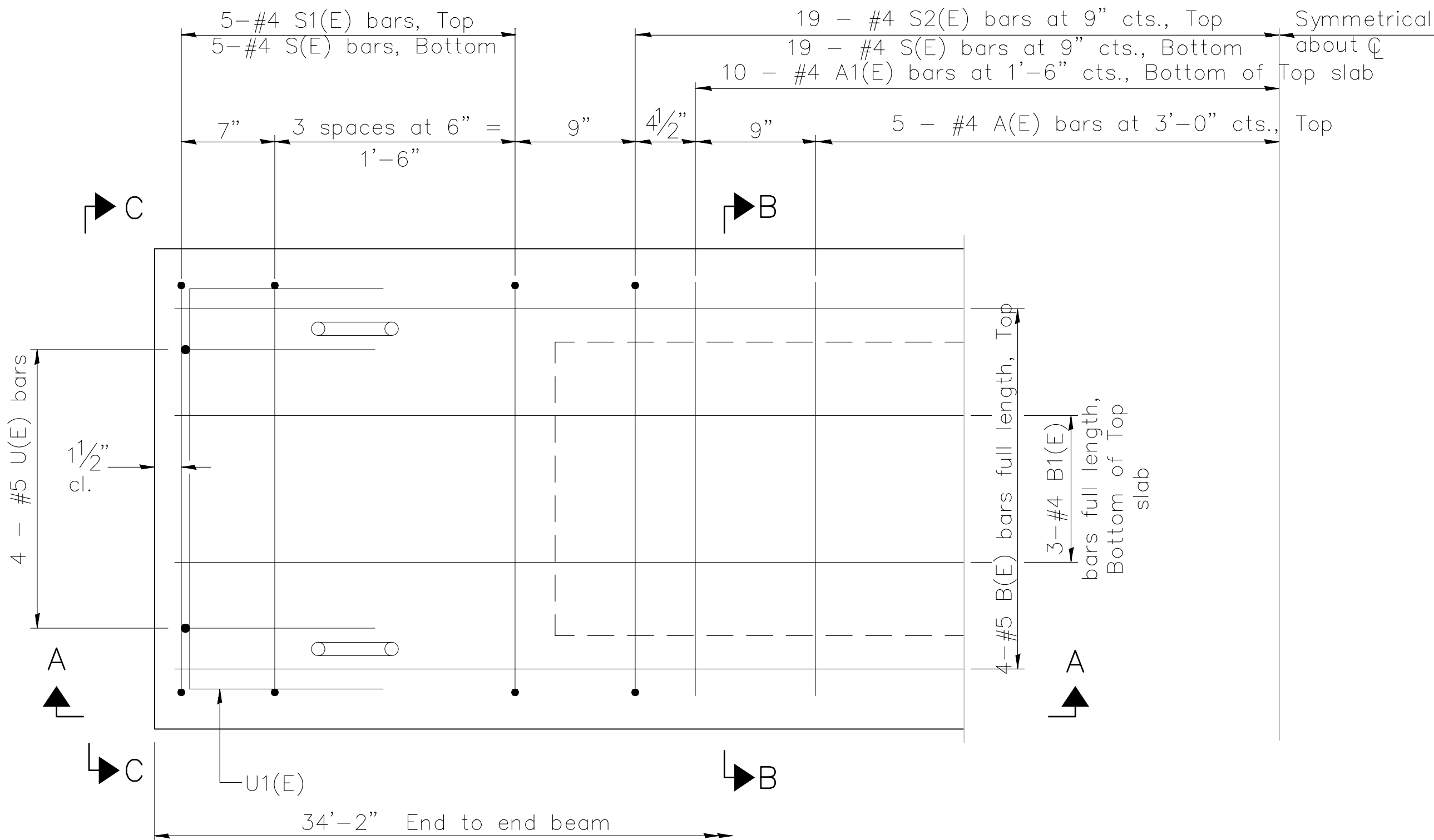


Notes:
See sheet 8 of 11 for Superstructure Details
and Bill of Material.

PLOT SCALE = AS SHOWN ON PLANS	USER NAME =	DESIGNED BCG/DMG	REVISED —	CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS	DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 BENTON (618) 435-4400 184-001397	SUPERSTRUCTURE PLAN AND CROSS SECTION SPILLWAY ROAD OVER LITTLE GRASSY CREEK		CH	PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN DMG	CHECKED BCG	REVISED —					26	C-99-047-20	WILLIAMSON	11	6
	PLOT DATE =	DATE 7-2-21	REVISED —			SCALE:		SHEET NO. 6 OF 11 SHEETS STA. 47+60 TO STA. 52+40				
								ILLINOIS FED. AID PROJECT BH8V(830)				

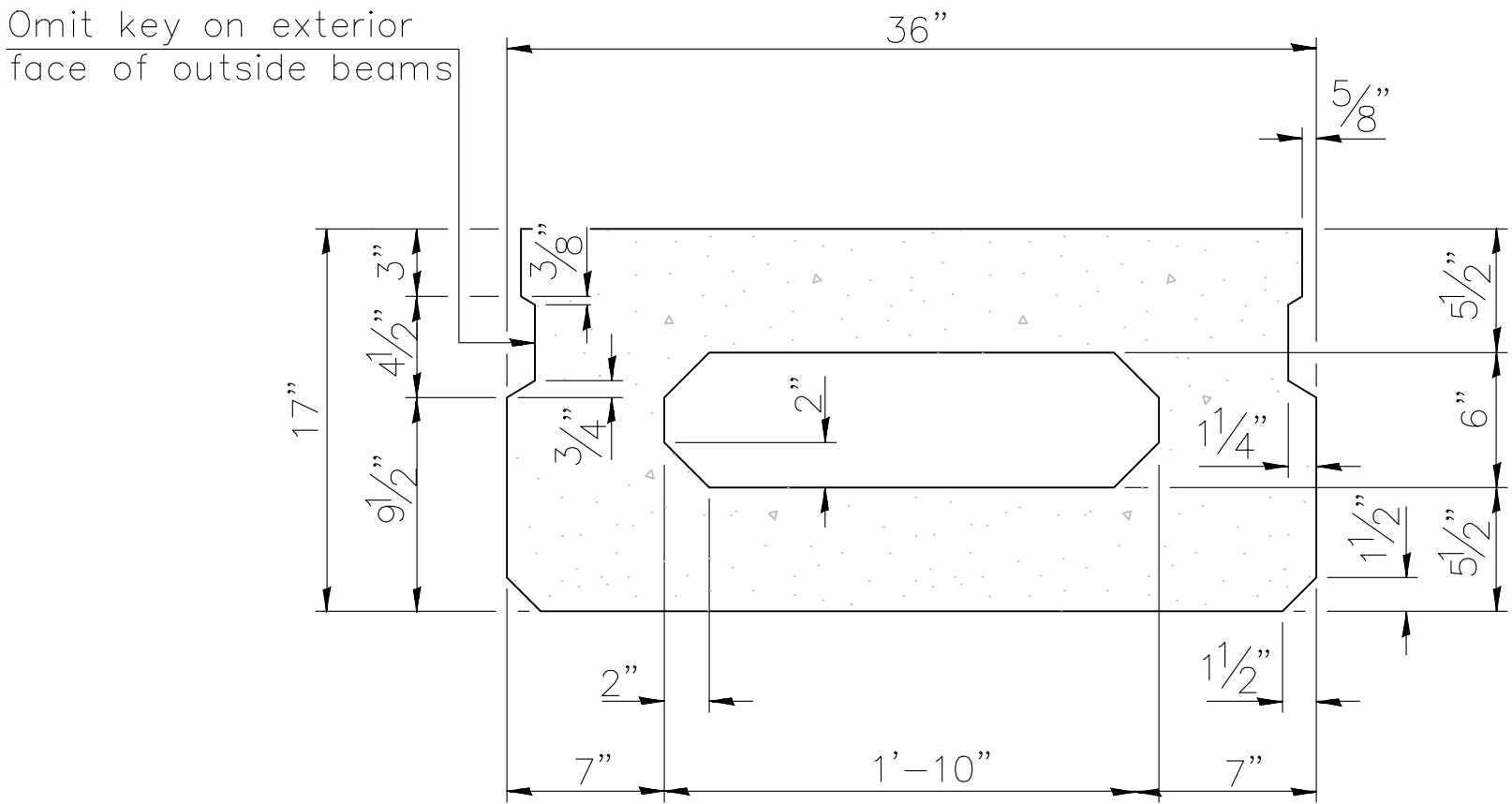


SECTION A-A

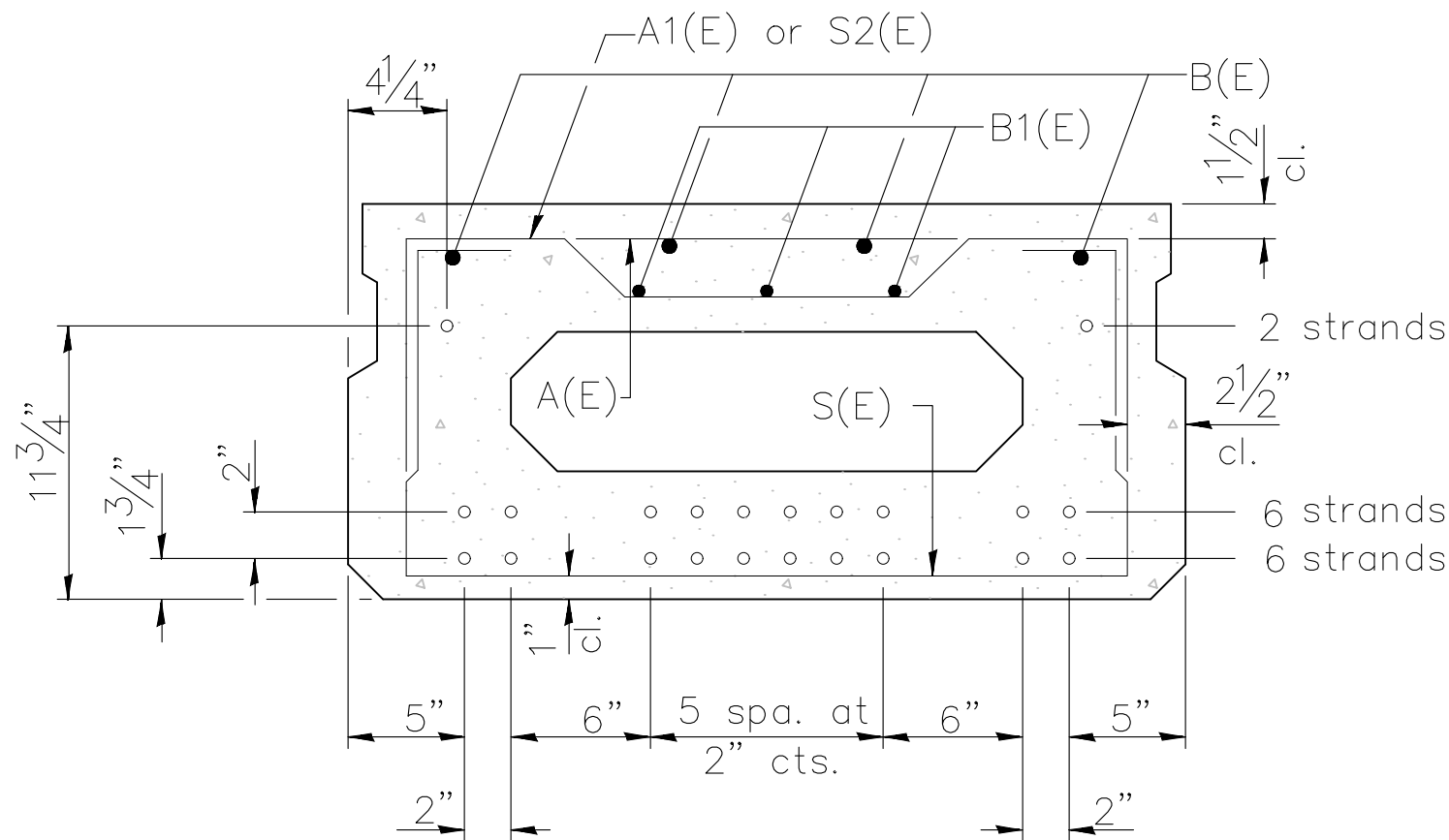


PLAN VIEW

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.



SECTION B-B
(Showing dimensions)

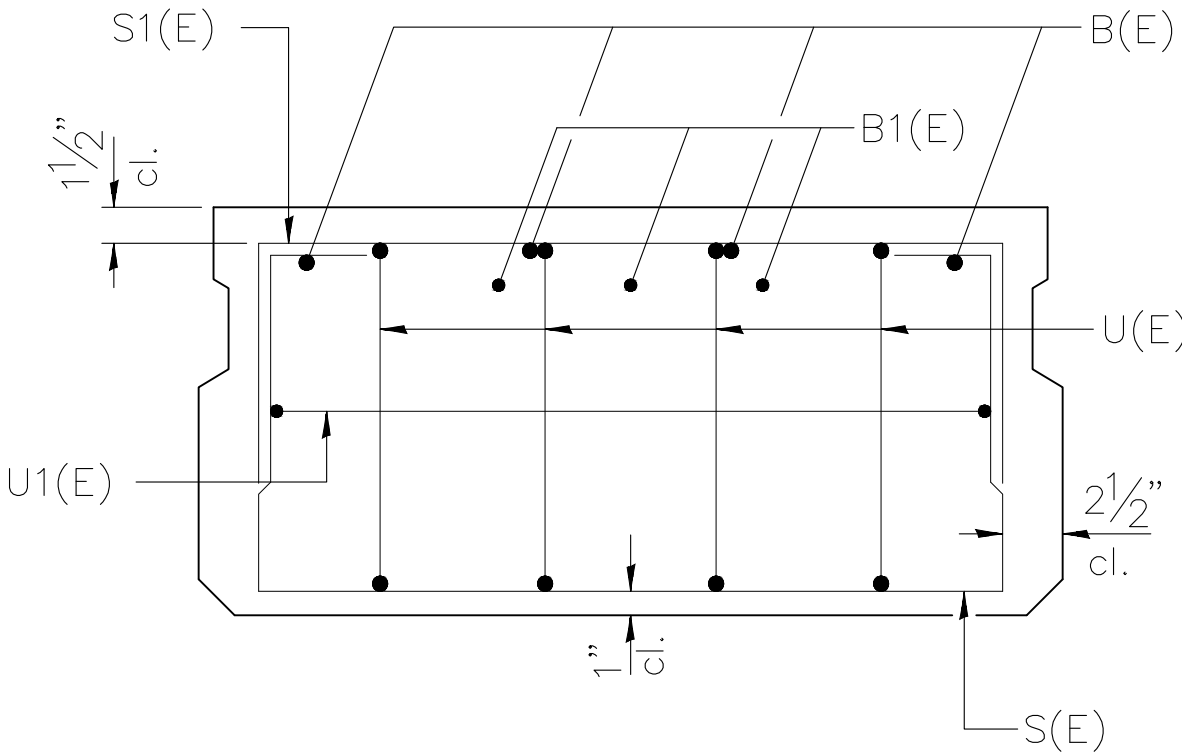


SECTION B-B
(Showing reinforcement and permissible strand locations)

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

MINIMUM BAR LAP

#3 bar = 1'-6"
#4 bar = 1'-11"
#5 bar = 2'-6"



VIEW C-C

BAR LIST
ONE BEAM ONLY

(For information only)

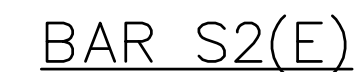
Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	20	#4	2'-10"	~
B(E)	9	#3	33'-11"	—
B1(E)	3	#4	33'-11"	—
S(E)	48	#4	5'-9"	□
S1(E)	10	#4	4'-3"	□
S2(E)	48	#4	4'-6"	□
U(E)	8	#5	3'-8"	□
U1(E)	2	#4	5'-0"	□

Note: See sheet 8 of 11 for additional details and Bill of Material.

	USER NAME =	DESIGNED BCG/DMG	REVISED —	CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS	DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 BENTON (618) 435-4400 184-001397	17"x36" PPC DECK BEAM SPILLWAY ROAD OVER LITTLE GRASSY CREEK		CH	PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = AS SHOWN ON PLANS	CHECKED BCG	REVISED —					26	C-99-047-20	WILLIAMSON	11	7
	PLOT DATE =	DATE 7-2-21	REVISED —			SCALE:	SHEET NO. 7 OF 11 SHEETS	STA. 47+60	TO STA. 52+40	CONTRACT NO. 99672		
										ILLINOIS FED. AID PROJECT BH8V(830)		



All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" $\emptyset$ 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 $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum $2\frac{1}{2}$ " $\emptyset$ 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.

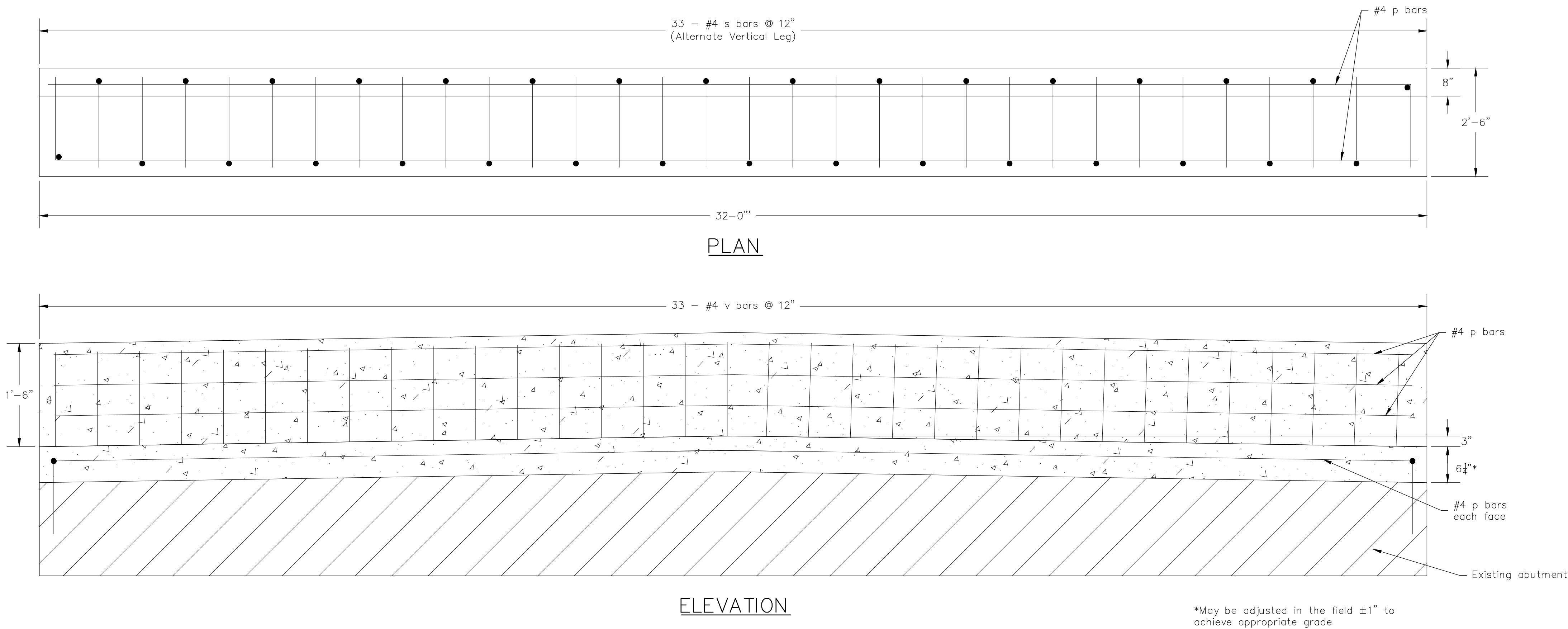
Compressive strength of prestressed concrete, f'_c , shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'_{ci} , shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2051
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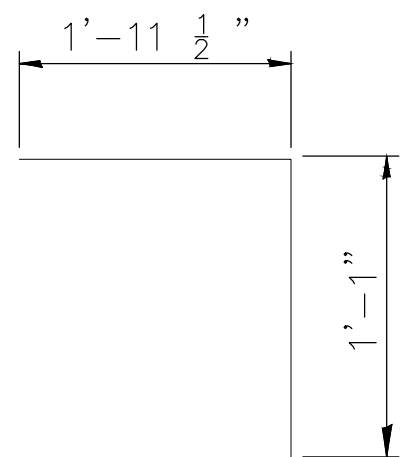
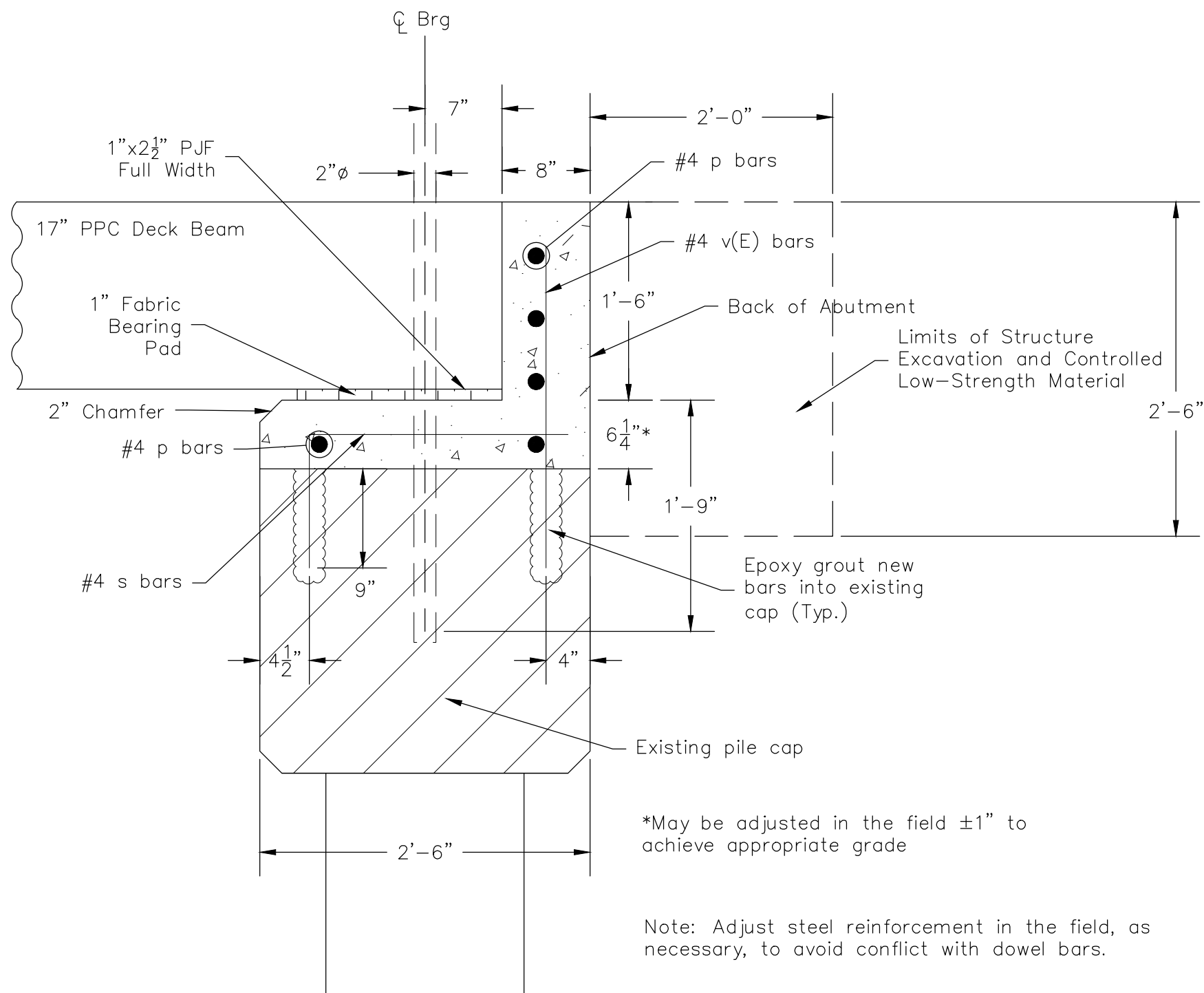
	USER NAME =	DESIGNED BCG/DMG	REVISED —	CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS	DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 BENTON (618) 435-4400	17"x36" PPC DECK BEAM DETAILS SPILLWAY ROAD OVER LITTLE GRASSY CREEK				CH	PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN DMG	REVISED —	26							C-99-047-20	WILLIAMSON	11	8	
	PLOT SCALE = AS SHOWN ON PLANS	CHECKED BCG	REVISED —			CONTRACT NO. 99672				ILLINOIS FED. AID PROJECT BH8V(830)				
	PLOT DATE =	DATE 7-2-21	REVISED —			SCALE:	SHEET NO. 8 OF 11 SHEETS	STA. 47+60 TO STA. 52+40						



BILL OF
MATERIAL
(2 ABUTMENTS)

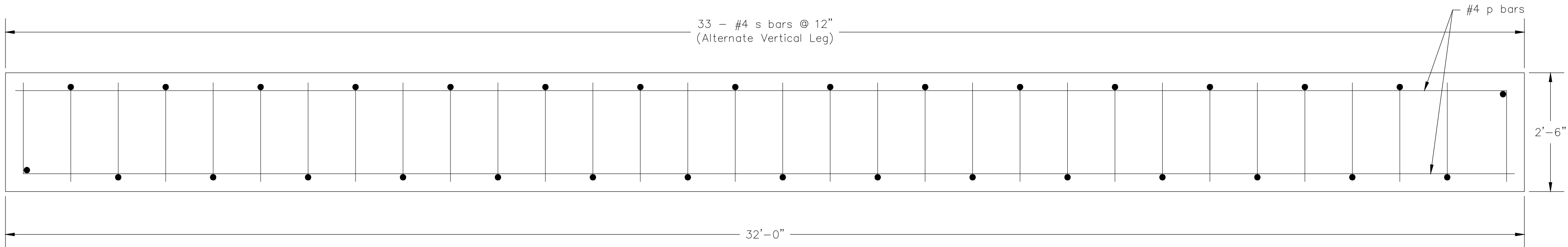
Bar	No.	Size	Length	Shape
p(E)	10	#4	31'-6"	_____
s(E)	66	#4	3'-1"	┐
v(E)	66	#4	2'-6"	_____
Concrete Structures			Cu. Yd.	5.4
Reinforcement Bars			Pound	460
Controlled Low Strength Material			Cu. Yd.	12.0

- Notes:
- Reinforcement bars designated (E) shall be epoxy coated.
 - Space reinforcement in cap to miss dowel rods.

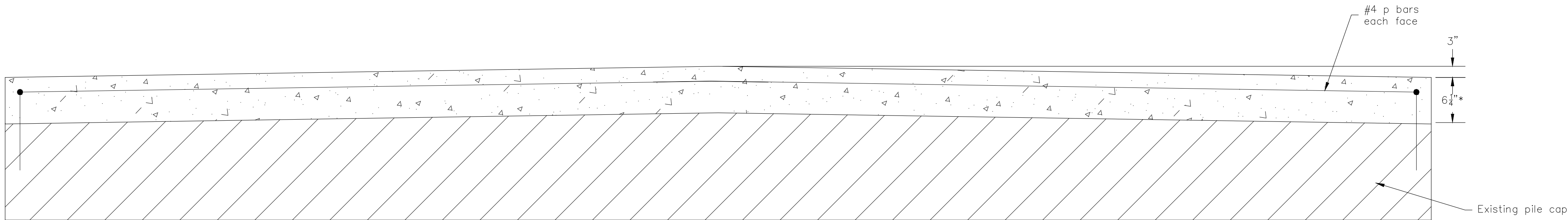


BAR s(E)

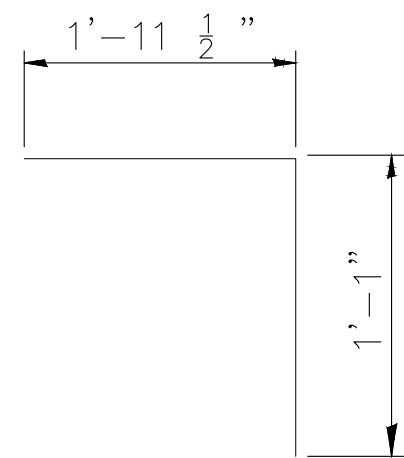
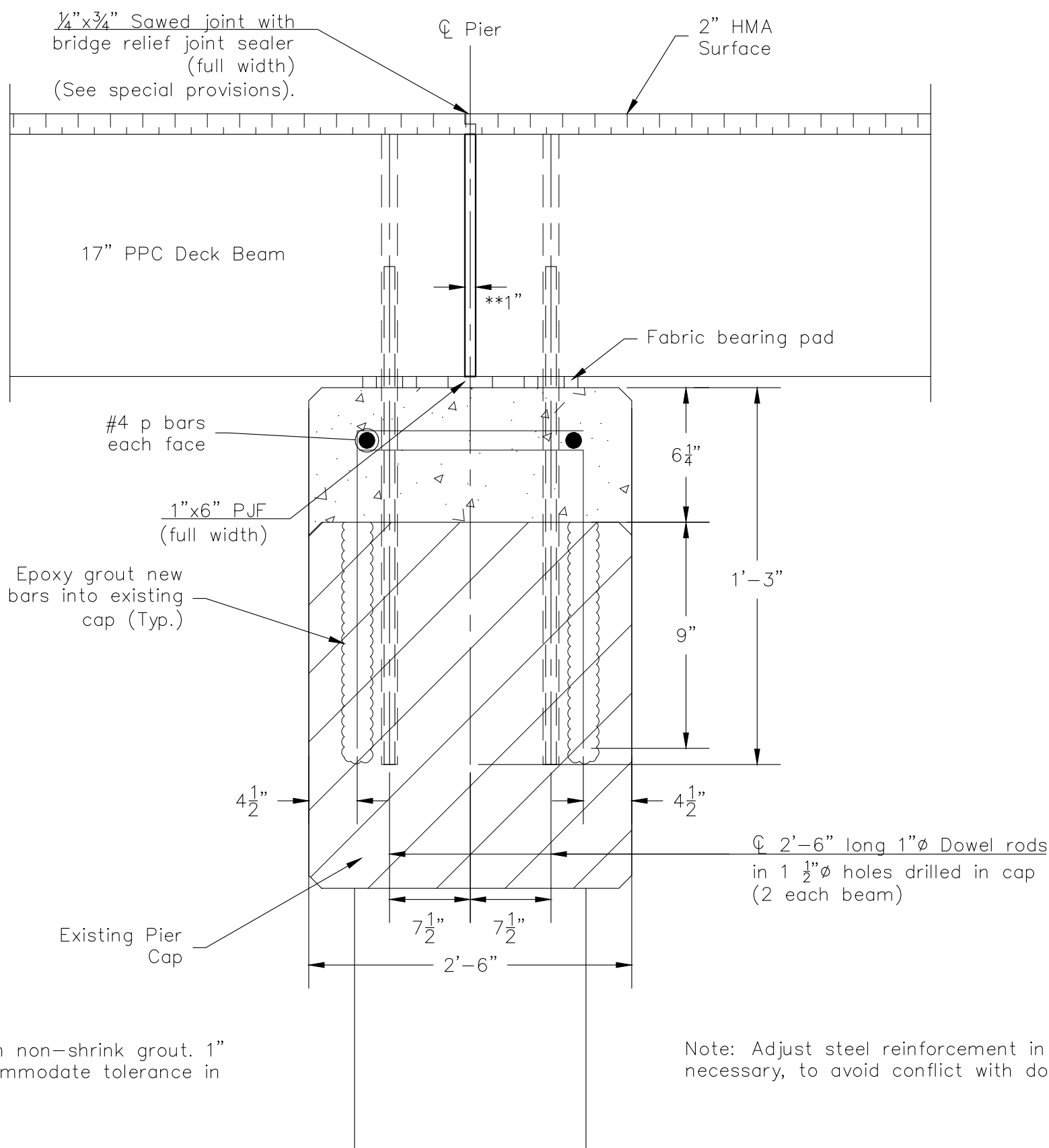
SECTION THRU ABUTMENT
(Dimensions at Rt L's)



PLAN



ELEVATION



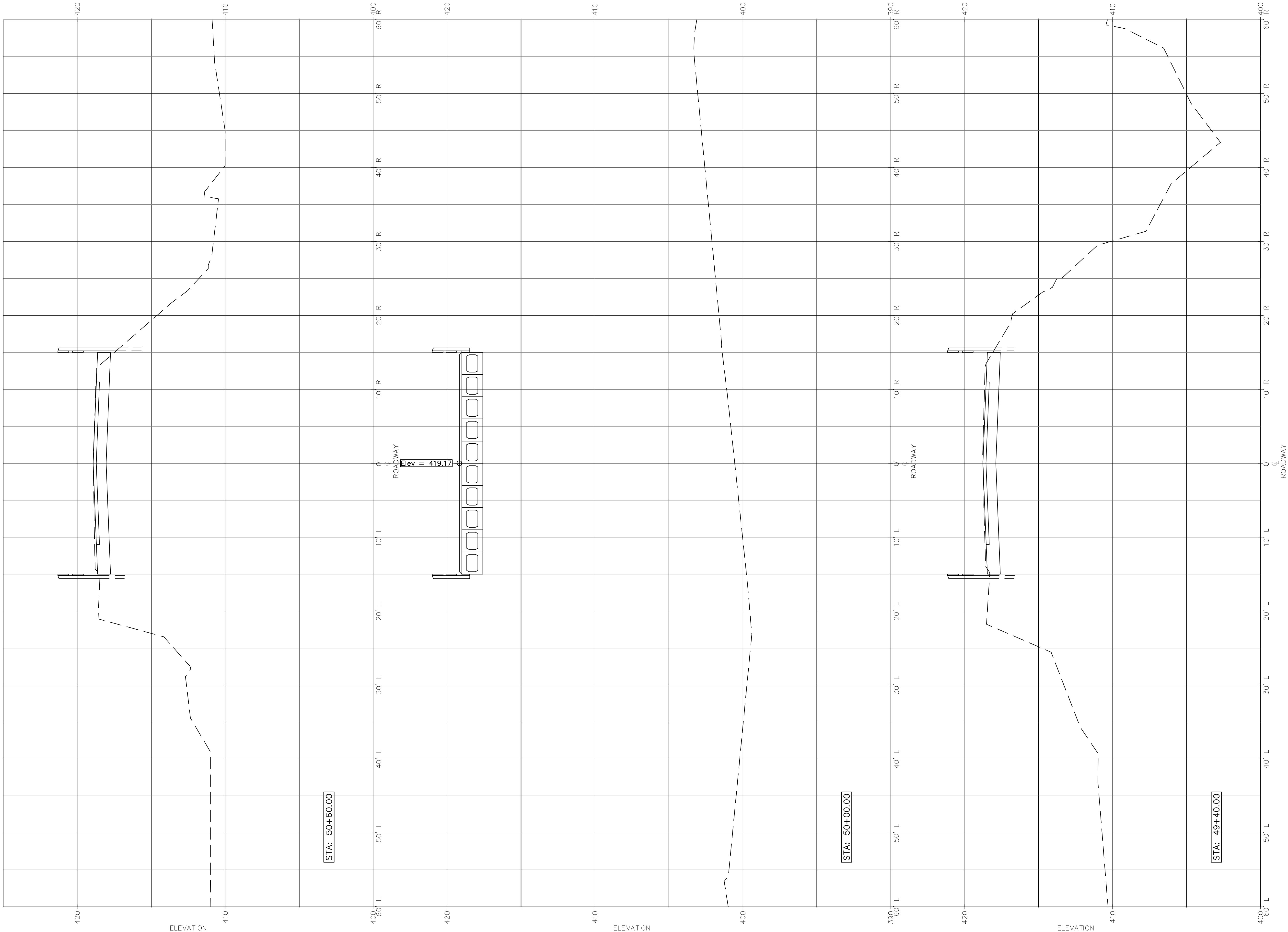
BAR s(E)

BILL OF MATERIAL
(1 PIER)

Bar	No.	Size	Length	Shape
p(E)	2	#4	31'-6"	————
s(E)	33	#4	3'-1"	┐
Structure Excavation		Cu. Yd.	0	
Concrete Structures		Cu. Yd.	1.5	
Reinforcement Bars		Pound	110	

- Notes:
- Reinforcement bars designated (E) shall be epoxy coated.
 - Space reinforcement in cap to miss dowel rods.

SECTION THRU PIER



USER NAME =	DESIGNED	BCG/DMG	REVISED	—
	DRAWN	DMG	REVISED	—
	CHECKED	BCG	REVISED	—
	DATE	7-2-21	REVISED	—



DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
BENTON (618) 435-4400
184-001397

CROSS SECTIONS
SPILLWAY ROAD OVER LITTLE GRASSY CREEK

SCALE: SHEET NO. 11 OF 11 SHEETS STA. 47+60 TO STA. 52+40

CH	PROJECT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
26	C-99-047-20	WILLIAMSON	11	11
CONTRACT NO. 99672				
ILLINOIS FED. AID PROJECT BH8V(830)				