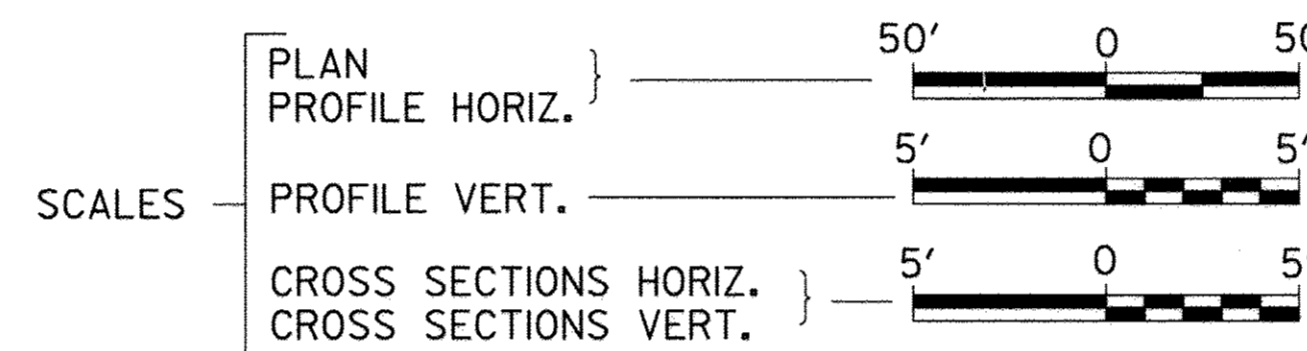


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED SURFACE TRANSPORTATION PROGRAM-BRIDGE BUREAU COUNTY SECTION 08-00215-00-BR F.A.S. 1235 (CH 19) OVER BRANCH OF EAST BUREAU CREEK PROJECT NO. BRS-1235(105) JOB NUMBER C-93-044-17

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1235	08-00215-00-BR	BUREAU	23	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87671		

INDEX OF SHEETS

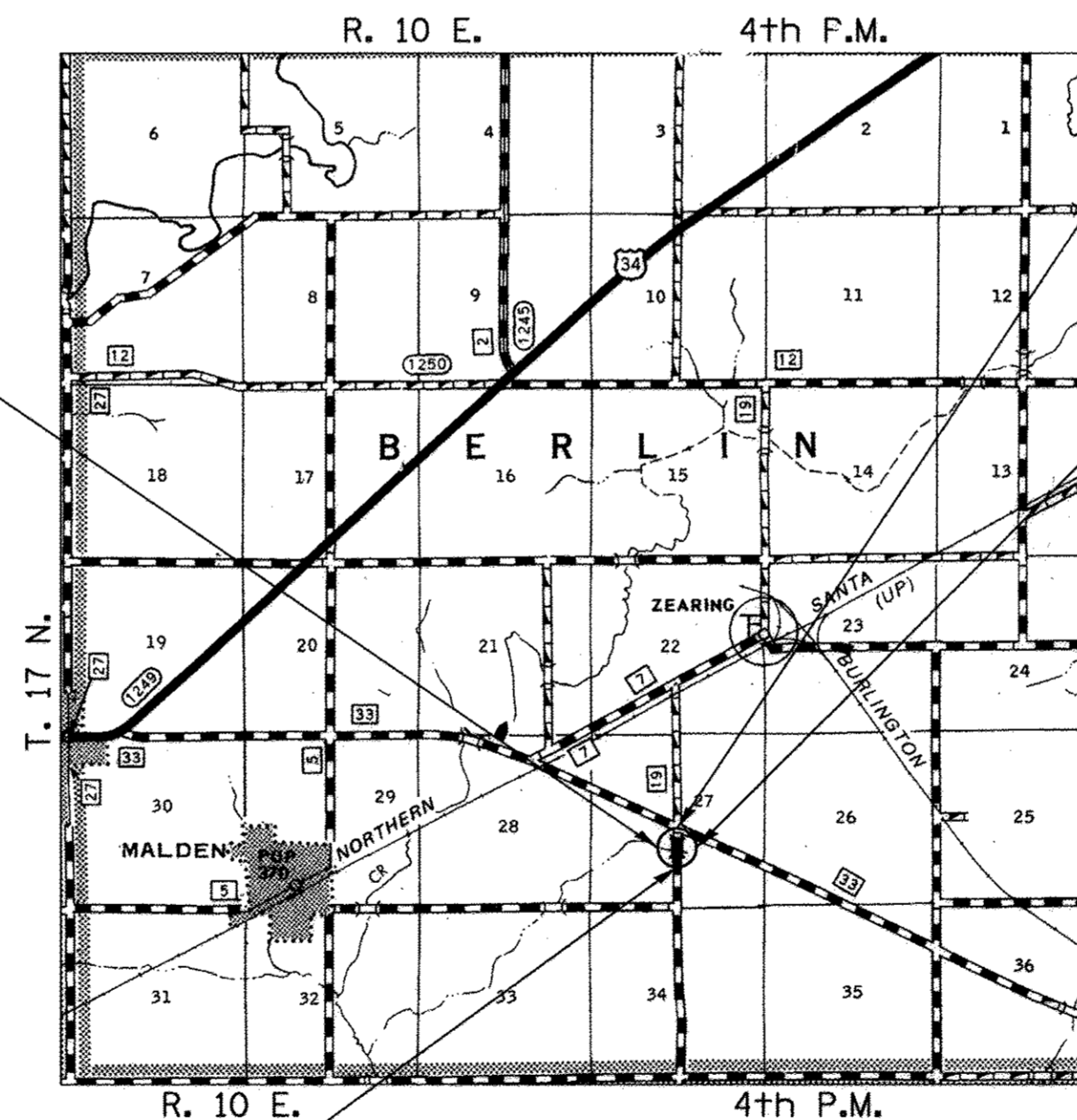
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, TYPICAL SECTIONS, PAVEMENT DESIGN INFORMATION
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-18.	STRUCTURE PLANS
19.-23.	CROSS SECTIONS



REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-07
- 515001-03
- 601001-05
- 601101-02
- 630301-07
- 701901-06
- 725001-01
- BLR 21-9
- BLR 26-3
- BLR 27-1

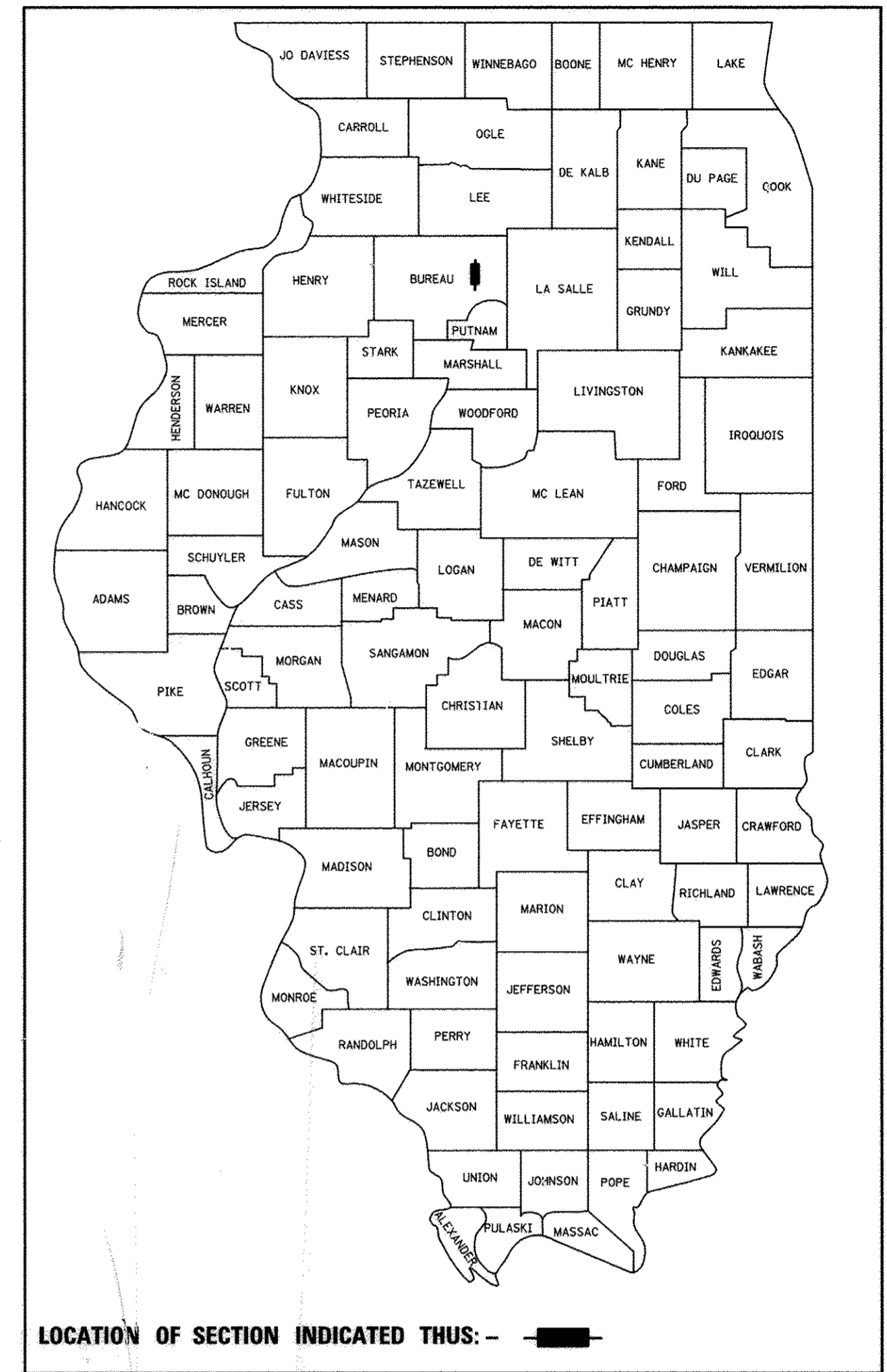
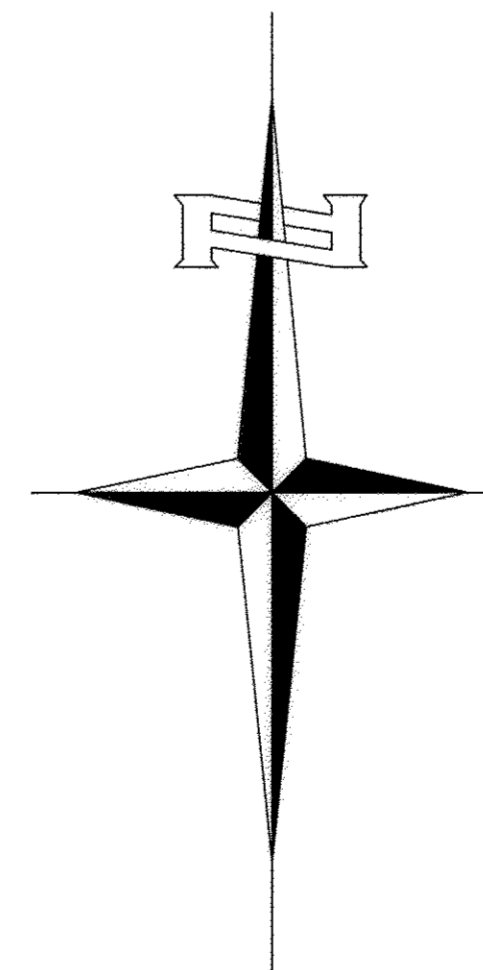
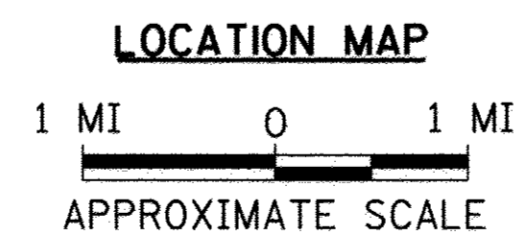
EXISTING STRUCTURE NO. 006-3011
THREE SPAN PRECAST NELSON BEAM BRIDGE ON
TIMBER PILE BENT PIERS AND TIMBER PILE BENT
ABUTMENTS, ALL WITH CONCRETE CAPS,
±50'-0" BK TO BK, AND ±26'-0" O TO O DECK,
NO SKEW. (TO BE REMOVED BY OTHERS)



SECTION 08-00215-00-BR
ENDS
STATION 22+00.00

PROPOSED STRUCTURE SN 006-3018
SINGLE SPAN 27' PPC DECK BEAM SUPERSTRUCTURE
ON CONCRETE SPILL-THRU PILE BENT ABUTMENTS,
58'-0" BK TO BK, AND 30'-0" O TO O DECK,
NO SKEW

SECTION 08-00215-00-BR
BEGINS
STATION 18+00.00



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

UTILITY COMPANIES

AMEREN ILLINOIS
LASALLE, ILLINOIS

FRONTIER COMMUNICATIONS
ROSEVILLE, ILLINOIS

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

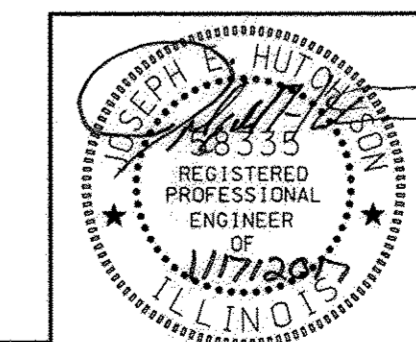
PLANS DESIGNED IN ACCORDANCE WITH BUREAU
OF LOCAL ROADS AND STREETS MANUAL GUIDELINES
FOR TWO LANE RURAL COLLECTORS - RECONSTRUCTION

APPROVED 01/31 2017
John C. ...
BUREAU COUNTY ENGINEER

PASSED 2/15 2017
David R. ...
DISTRICT THREE ENGINEER OF
LOCAL ROADS & STREETS

Released For
Bid Based on
Limited Review 2/15 2017

Kevin ...
REGION TWO ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Hutchison Engineering, Inc.
JACKSONVILLE-SHOREWOOD-PEORIA

2017

JOB#3546

Lic Exp 11/30/2017
SIGNATURE

ENGINEER'S SEAL

NET LENGTH OF PROJECT = 400.00 FEET = 0.076 MILES
DESIGN CLASSIFICATION: MINOR COLLECTOR (NON-URBAN)
DESIGN ADT: 150 (16)
DESIGN SPEED: 40 MPH

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	HMA BINDER	HMA SURFACE
PG GRADE	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-9.5
FRICTION AGGREGATE		MIXTURE C
DENSITY TEST METHOD	LR1030	LR1030
MIXTURE WEIGHT	112#/SQ. YD./IN.	112#/SQ. YD./IN.
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A
LOCATIONS	ENTIRE PROJECT	ENTIRE PROJECT

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

**STRUCTURAL DESIGN INFORMATION
COUNTY HIGHWAY 19**

ROAD CLASSIFICATION: CLASS IV 80,000 lb./20 YEAR DESIGN
STRUCTURAL DESIGN TRAFFIC:
PV = 132 SU = 14 MU = 4
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P = 88% S = 9% M = 3%
DESIGN E_{r1} : 3 ksi
ASPHALT PAVEMENT THICKNESS: 3 3/4"
SUBBASE GRANULAR MATERIAL, TYPE A: 12"

GENERAL NOTES

THE REMOVAL OF EXISTING ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

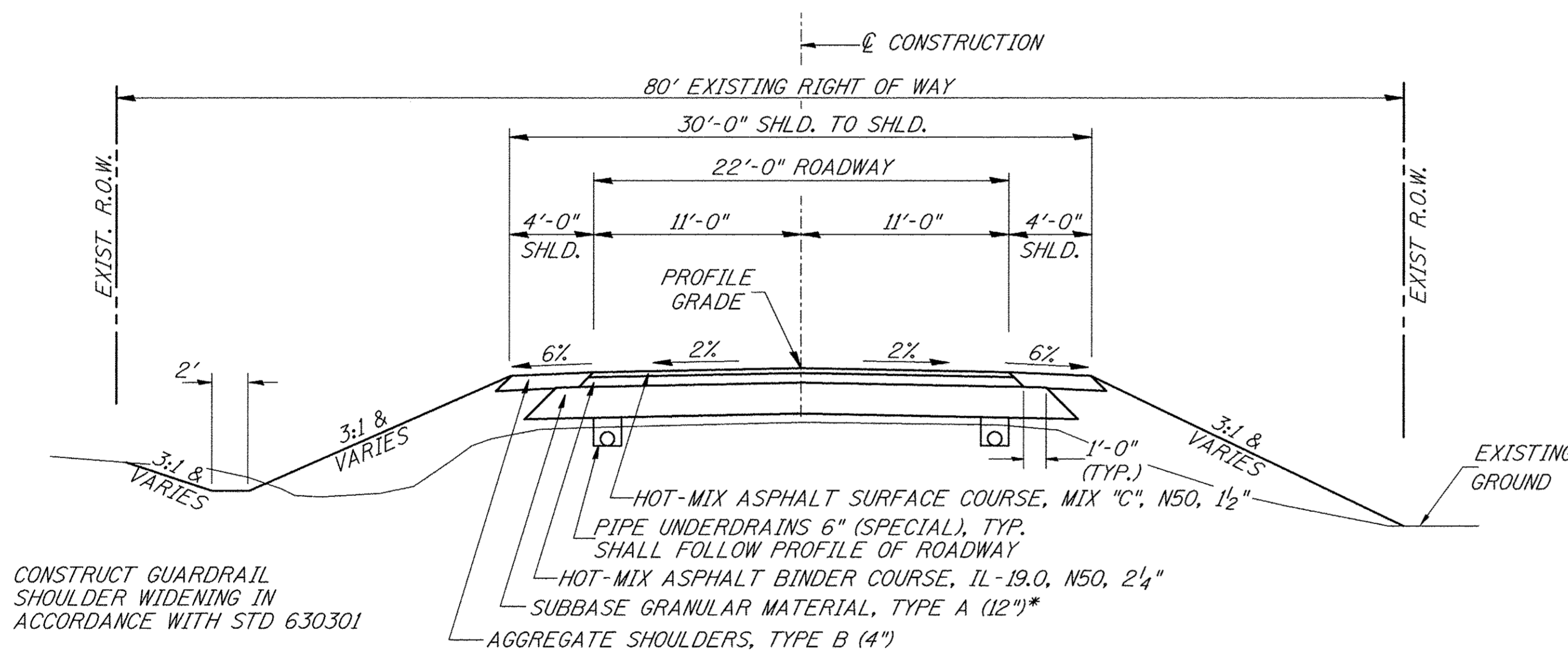
THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE FINAL SURFACE OF ALL DISTURBED/EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDED AREAS SHALL BE COHESIVE VEGETATION SUSTAINING SOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING VEGETATION SUSTAINING SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. TOPSOIL MAY BE STRIPPED AND STOCKPILED FROM THE SITE OR HAULED IN FROM AN ALTERNATE LOCATION AS APPROVED BY THE ENGINEER.

ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.



PROPOSED TYPICAL SECTION

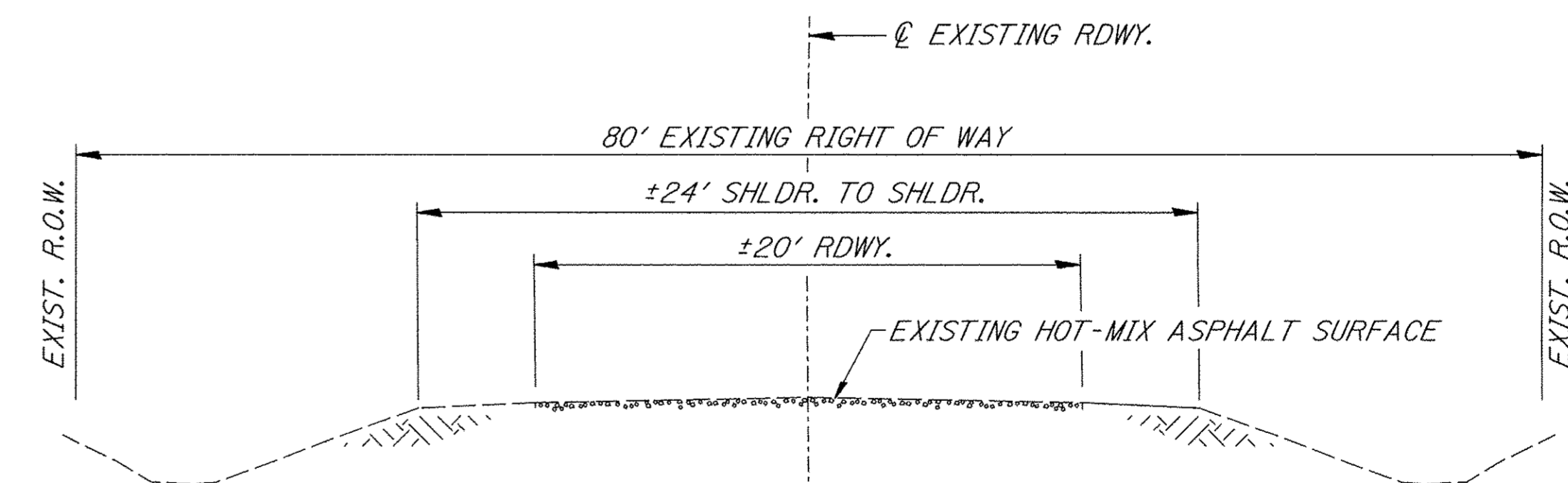
STA. 18+00.00 TO STA. 19+71.00
STA. 20+29.00 TO STA. 22+00.00

BRIDGE OMISSION

STA. 19+71.00 TO STA. 20+29.00

*TOP 3"-CA-6 GRADATION
BOTTOM 9"-CA-2 GRADATION

CONSTRUCT GUARDRAIL
SHOULDER WIDENING IN
ACCORDANCE WITH STD 6.30301



EXISTING TYPICAL SECTION

FILE NAME = V:\Bridge\3546-Bureau\3546t001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**BUREAU COUNTY
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK**

**GENERAL NOTES, TYPICAL SECTIONS,
PAVEMENT DESIGN INFORMATION**
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 18+00.00 TO STA. 22+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1235	08-00215-00-BR	BUREAU	23	2
CONTRACT NO. 87671				
FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT NO. BRS-1235(05)				

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20300100	CHANNEL EXCAVATION	CU YD	50
20400800	FURNISHED EXCAVATION	CU YD	240
20700220	POROUS GRANULAR EMBANKMENT	CU YD	36.1
25100630	EROSION CONTROL BLANKET	SQ YD	1,936
28000305	TEMPORARY DITCH CHECKS	FOOT	60
28000400	PERIMETER EROSION BARRIER	FOOT	395
31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	605
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,075
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	106
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	90
48101200	AGGREGATE SHOULDERS, TYPE B	TON	60
50300225	CONCRETE STRUCTURES	CU YD	25.7
50300280	CONCRETE ENCASEMENT	CU YD	2.6
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,685
50800105	REINFORCEMENT BARS	POUND	2,850
51200957	FURNISHING METAL SHELL PILES 12"X0.250"	FOOT	360
51202305	DRIVING PILES	FOOT	360
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	193
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	150
60108200	PIPE UNDERDRAINS 6" (SPECIAL)	FOOT	760
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
67100100	MOBILIZATION	L SUM	1
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	430
X2501100	SEEDING, CLASS 3 (SPECIAL)	ACRE	0.4
X2810210	STONE RIPRAP, CLASS A5 (SPECIAL)	TON	560
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
XX006199	STEEL BRIDGE RAIL, TYPE SM (SPECIAL)	FOOT	116
Z0013798	CONSTRUCTION LAYOUT	L SUM	1

① SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS CONSTRUCTION CODE TYPE: 0011
NOTE: PAVEMENT MARKING DONE BY OTHERS

PAVEMENT SCHEDULE

STATION TO STATION	WIDTH	LENGTH	SUBBASE GRANULAR MATERIAL, TYPE A (TON)	PRIME COAT POUND 0.25 lb./SQ FT	HOT-MIX ASPHALT BINDER CSE, IL-19.0, N50 TON 112#/SQ YD/IN	HOT-MIX ASPHALT SURF CSE, MIX "C", N50 TON 112#/SQ YD/IN
18+00.00 - 18+50.00	24.38' AVG.	50.00'	85			
18+50.00 - 19+71.00	25.63'	121.00'	217			
20+29.00 - 21+50.00	25.63'	121.00'	217			
21+50.00 - 22+00.00	24.43' AVG.	50.00'	86			
18+00.00 - 18+50.00	23.38' AVG.	50.00'		292		
18+50.00 - 19+71.00	24.63'	121.00'		745		
20+29.00 - 21+50.00	24.63'	121.00'		745		
21+50.00 - 22+00.00	23.43' AVG.	50.00'		293		
18+00.00 - 18+50.00	21.19' AVG.	50.00'			15	
18+50.00 - 19+71.00	22.44'	121.00'			38	
20+29.00 - 21+50.00	22.44'	121.00'			38	
21+50.00 - 22+00.00	21.24' AVG.	50.00'			15	
18+00.00 - 18+50.00	20.88' AVG.	50.00'				10
18+50.00 - 19+71.00	22.13'	121.00'				25
BRIDGE DECK	30.00'	58.00'				20
20+29.00 - 21+50.00	22.13'	121.00'				25
21+50.00 - 22+00.00	20.93' AVG.	50.00'				10
TOTAL			605	2,075	106	90

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD	CU YD	CU YD
RDWY 18+00.00 - 19+71.00	225			277	(108)
RDWY 20+29.00 - 22+00.00	206			284	(130)
CHANNEL		50			
STRUCTURE			105		
TOTAL	431	50	105	561	(238)
USE	430	50	*105	-	(240)

(@ 25% SHRINKAGE)

*STRUCTURE EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 502 OF THE STANDARD SPECIFICATIONS. INDIVIDUAL PAYMENT FOR STRUCTURE EXCAVATION WILL NOT BE MADE, BUT SHALL BE IN ACCORDANCE WITH SECTION 502.13.

EROSION CONTROL BLANKET

STATION TO STATION	SIDE	WIDTH	LENGTH	AREA (SQ YD)
18+00 - 19+71	LEFT	VARIES	171'	484
18+00 - 19+71	RIGHT	VARIES	171'	484
20+29 - 22+00	LEFT	VARIES	171'	484
20+29 - 22+00	RIGHT	VARIES	171'	484
TOTAL				1,936

TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
18+65	RIGHT	12
18+95	LEFT	12
19+25	RIGHT	12
19+85	RIGHT	12
19+86	LEFT	12
TOTAL		60

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
20+29 - 22+00	LEFT	195
20+29 - 22+00	RIGHT	200
TOTAL		395

AGGREGATE SHOULDERS, TYPE B

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
18+00.00 - 18+50.00	LEFT	3.00' AVG.	50.00'	4
18+00.00 - 18+50.00	RIGHT	3.00' AVG.	50.00'	4
18+50.00 - 19+71.00	LEFT	4.00'	121.00'	11
18+50.00 - 19+71.00	RIGHT	4.00'	121.00'	11
20+29.00 - 21+50.00	LEFT	4.00'	121.00'	11
20+29.00 - 21+50.00	RIGHT	4.00'	121.00'	11
21+50.00 - 22+00.00	LEFT	3.00' AVG.	50.00'	4
21+50.00 - 22+00.00	RIGHT	3.00' AVG.	50.00'	4
TOTAL				60

TRAFFIC BARRIER TERMINAL, TYPE 5A

SIDE	STATION TO STATION	EACH
RIGHT	19+57.75 - 19+71.00	1
LEFT	20+29.00 - 20+42.25	1
TOTAL		2

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

SIDE	STATION TO STATION	EACH
RIGHT	19+07.75 - 19+57.75	1
LEFT	20+42.25 - 20+92.25	1
TOTAL		2

PIPE UNDERDRAINS 6" (SPECIAL)

STATION TO STATION	SIDE	FOOT
18+00 - 19+66	LEFT	174
18+00 - 19+66	RIGHT	177
19+66 - 19+71	LEFT	13
19+66 - 19+71	RIGHT	16
20+29 - 20+34	LEFT	16
20+29 - 20+34	RIGHT	13
20+34 - 22+00	LEFT	177
20+34 - 22+00	RIGHT	174
TOTAL		760



- 1

ROAD CLOSED 1 1/4 MILES AHEAD LOCAL TRAFFIC ONLY	ROAD CLOSED 1 1/4 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3	
- 2

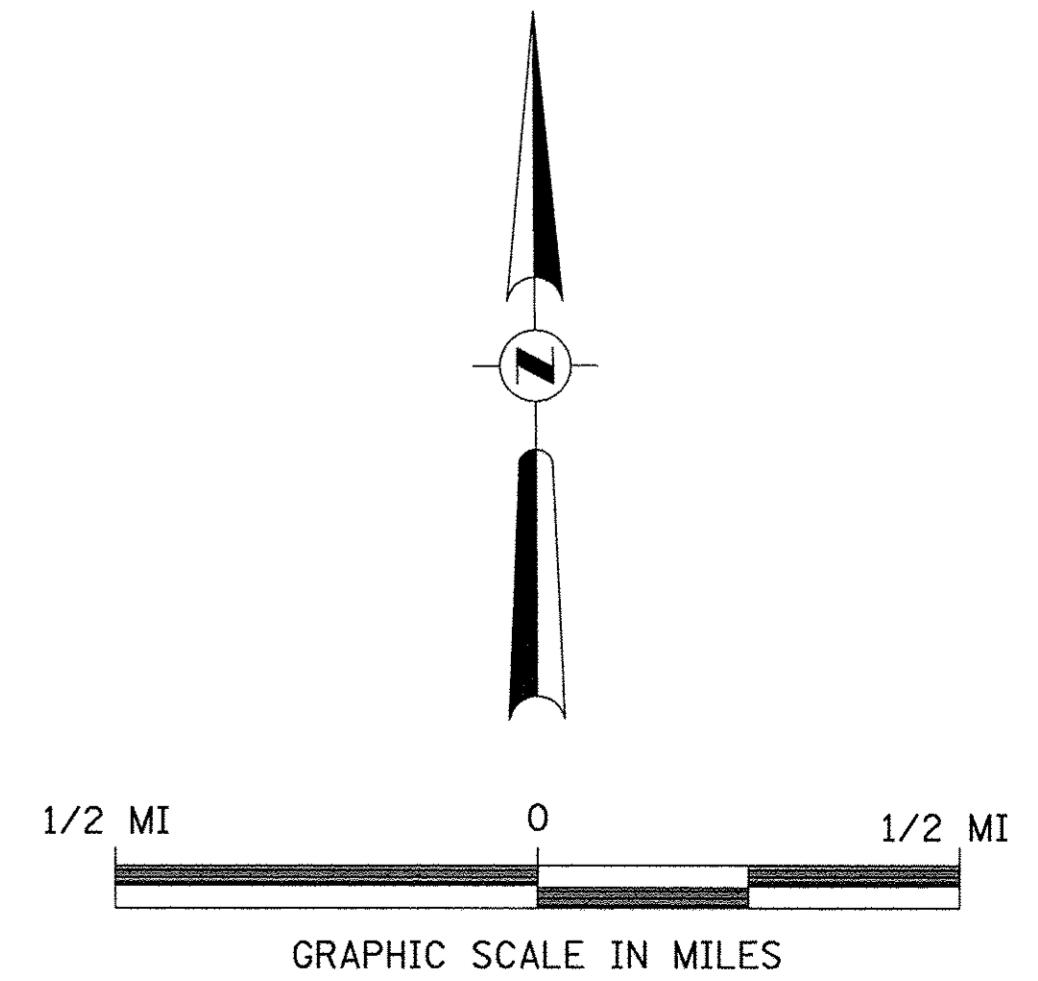
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R11-3	
- 3

ROAD CLOSED AHEAD	ROAD CLOSED AHEAD
W20-3	
- 4

ROAD CLOSED 500 FT	ROAD CLOSED 500 FT
W20-3	
- 5

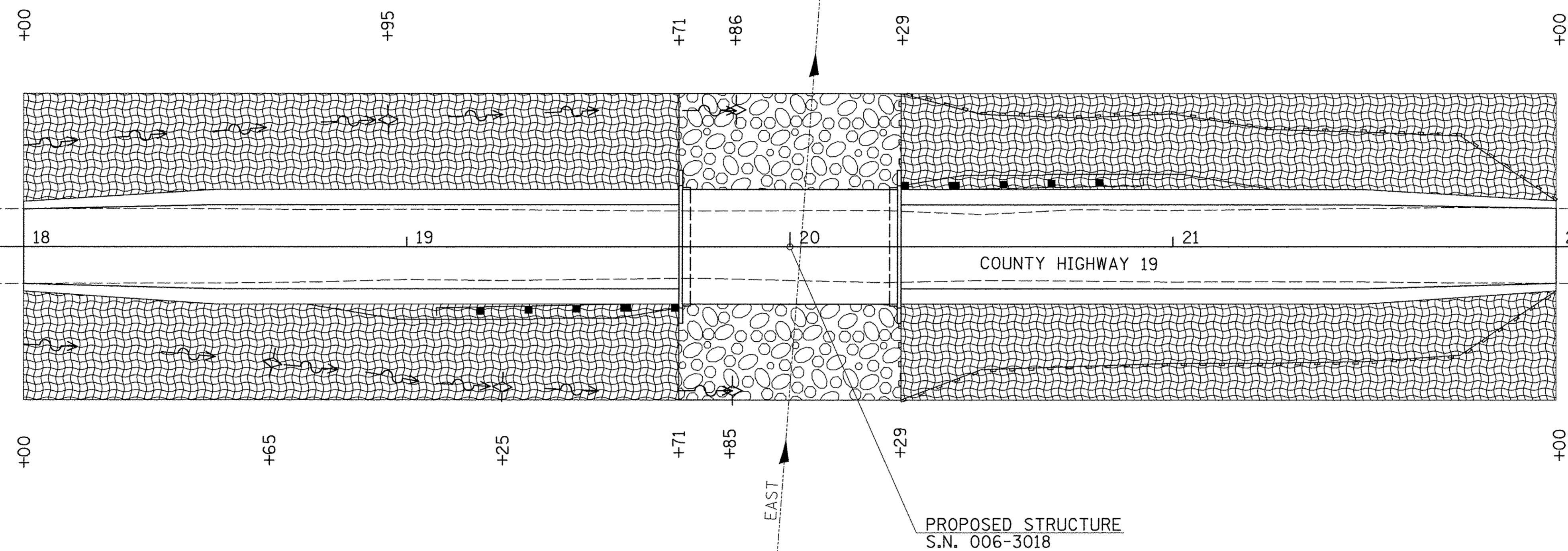
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SEE STANDARD BLR 21
AND SPECIAL PROVISIONS

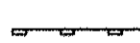
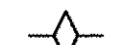


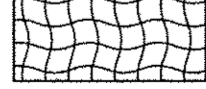


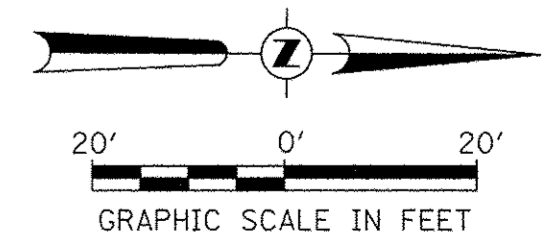
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PLOT SCALE = 1.0000' / in.	CHECKED -	DATE -	REVISED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+00.00 TO STA. 22+00.00		CONTRACT NO. 87671		
PLOT DATE = 1/16/2017	DATE -	REVISED -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)		

T 17 N, R 10 E, 4th PM
SECTION 27



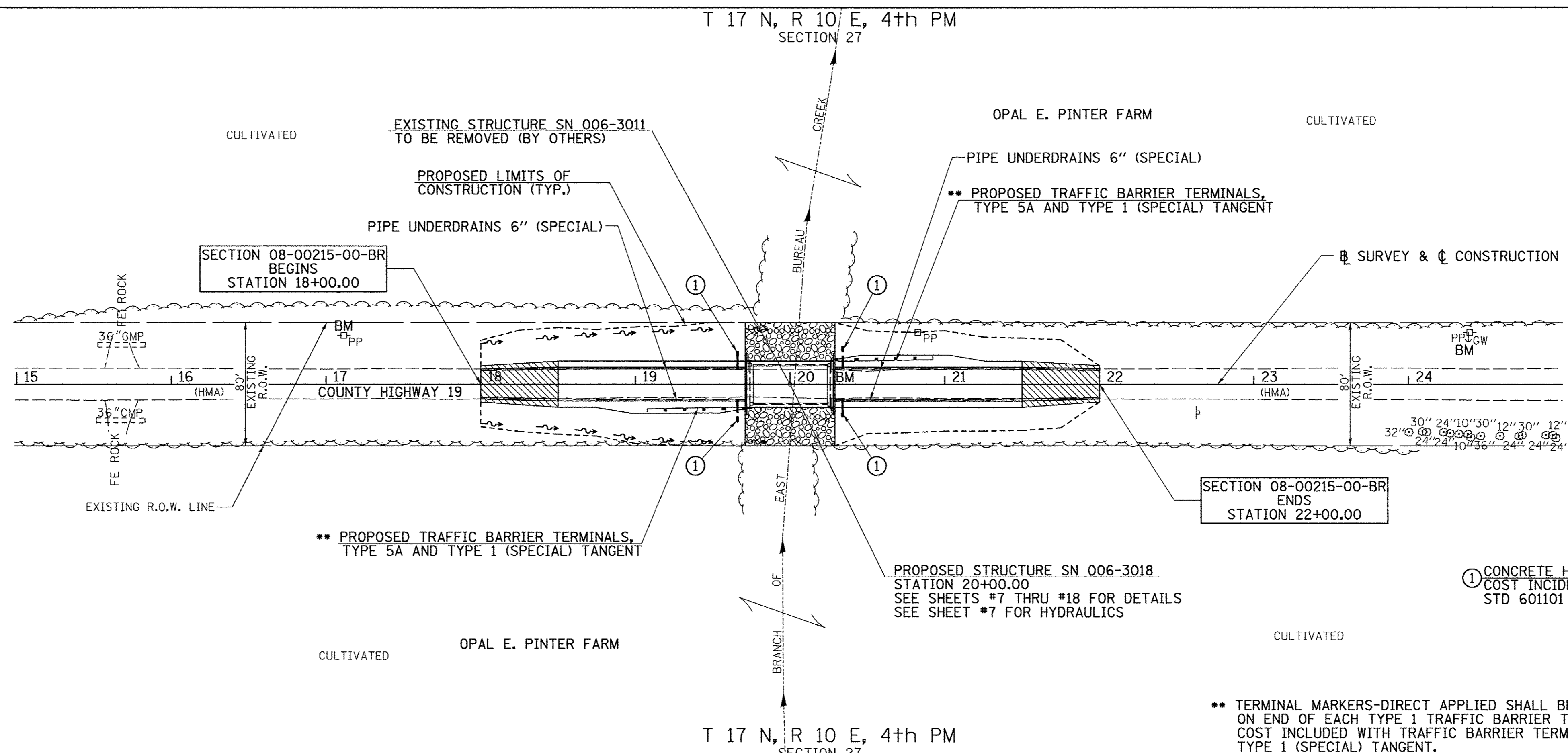
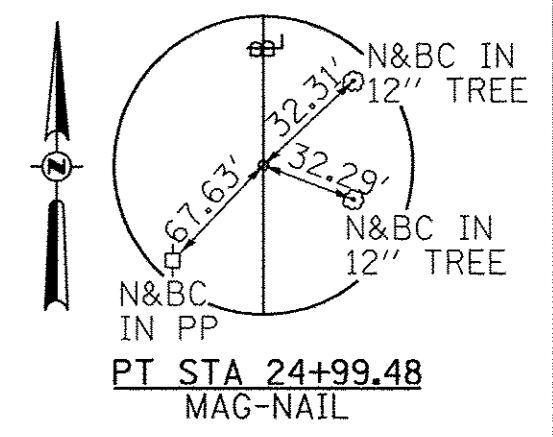
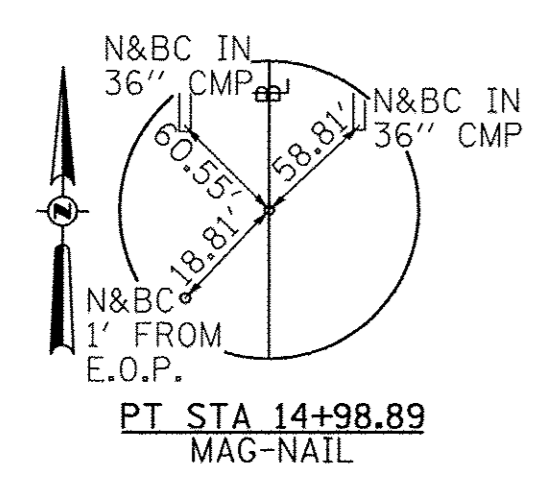
LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP PLACEMENT
-  EROSION CONTROL BLANKET



T 17 N, R 10 E, 4th PM
SECTION 27

FILE NAME = V:\Bridges\3546-Bureau\3546S001.dgn	USER NAME = JHutchison	DESIGNED - _____	REVISED - _____	BUREAU COUNTY COUNTY HIGHWAY 19 OVER BRANCH OF EAST BUREAU CREEK	EROSION CONTROL PLAN			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20.0000' / 1in.	CHECKED - _____	REVISED - _____					1235	08-00215-00-BR	BUREAU	23	5
	PLOT DATE = 1/16/2017	DATE - _____	REVISED - _____		SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. 18+00.00 TO STA. 22+00.00				CONTRACT NO. 87671			
								FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. BRS-1235(105)		



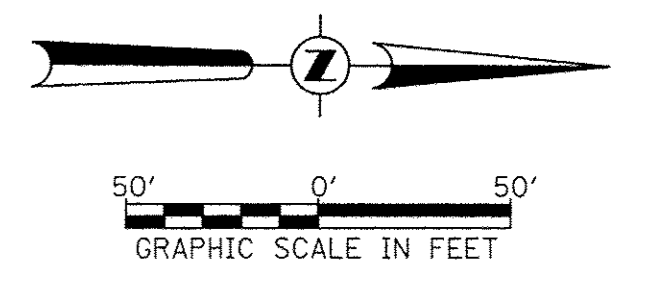
LEGEND

TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT

PROPOSED RIPRAP PLACEMENT

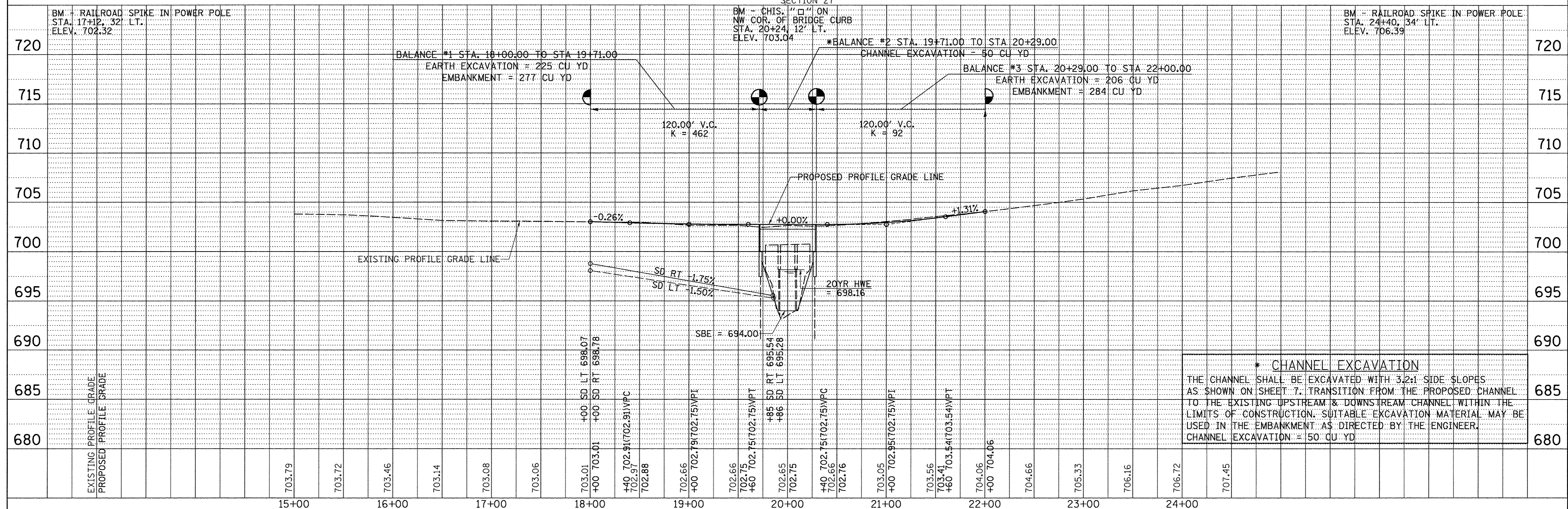
SPECIAL DITCH WITH FLOW DIRECTION

•• TERMINAL MARKERS-DIRECT APPLIED SHALL BE PLACED ON END OF EACH TYPE 1 TRAFFIC BARRIER TERMINAL. COST INCLUDED WITH TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT.



DATE	
BY	
SUBMITTED	
PLOTTED	
NOTE BOOK	
NO.	
FILE NAME	

DATE	
BY	
SUBMITTED	
PLOTTED	
NOTE BOOK	
NO.	
FILE NAME	



*** CHANNEL EXCAVATION**

THE CHANNEL SHALL BE EXCAVATED WITH 3:2:1 SIDE SLOPES AS SHOWN ON SHEET 7. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL MAY BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.

CHANNEL EXCAVATION = 50 CU YD

FILE NAME =	USER NAME = JHutchison	DESIGNED -	REVISED -	BUREAU COUNTY COUNTY HIGHWAY 19 OVER BRANCH OF EAST BUREAU CREEK				F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*MODELNAME#	PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED -					1235	08-00215-00-BR	BUREAU	23	6	
	PLOT DATE = 1/16/2017	CHECKED -	REVISED -	SCALE: 1"=50'				SHEET 1 OF 1 SHEETS		STA. 18+00.00 TO STA. 22+00.00		CONTRACT NO. 87671	
		DATE	REVISED -					FED. ROAD DIST. NO. 7 [ILLINOIS]		FED. AID PROJECT BRS-12351(05)			

B.M.: RR Spike in Power Pole
Sta. 17+12, 32' Lt.
Elev. 702.32

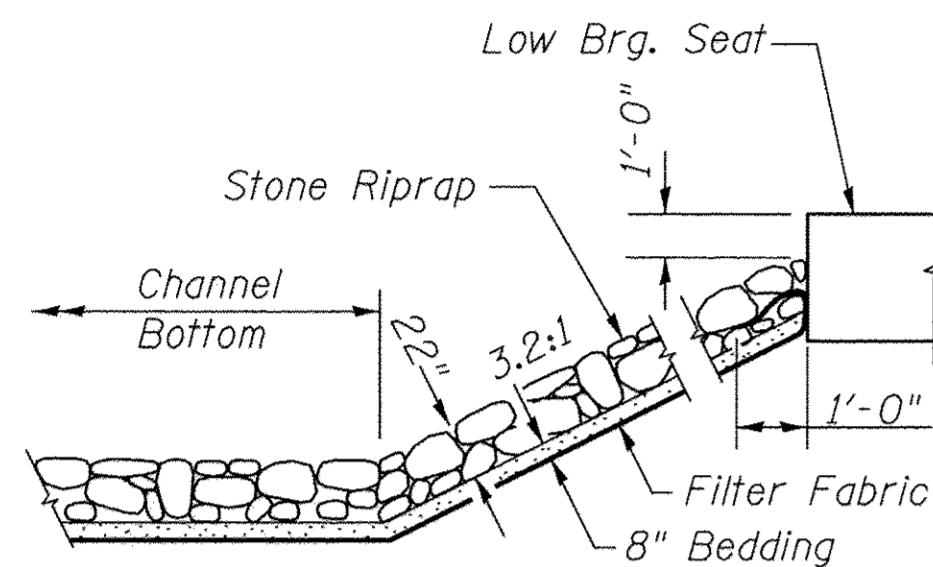
RR Spike in Power Pole
Sta. 24+40, 34' Lt.
Elev. 706.39

Existing Structure:

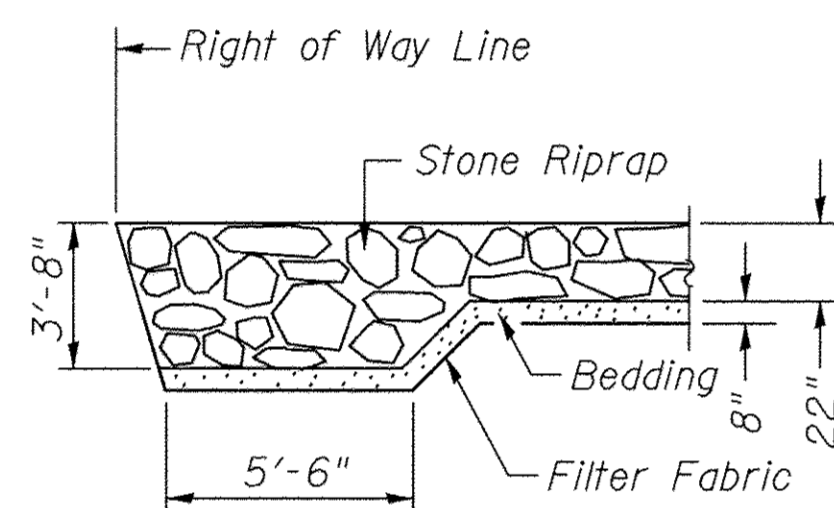
Three span precast Nelson beam bridge on timber pile bent piers with concrete caps and timber pile bent abutments with concrete caps. The structure is ±50'-0" back to back of abutments, ±26'-0" out to out deck, and is not skewed. Str. No. 006-3011 To Be Removed by Others.

Salvage: None

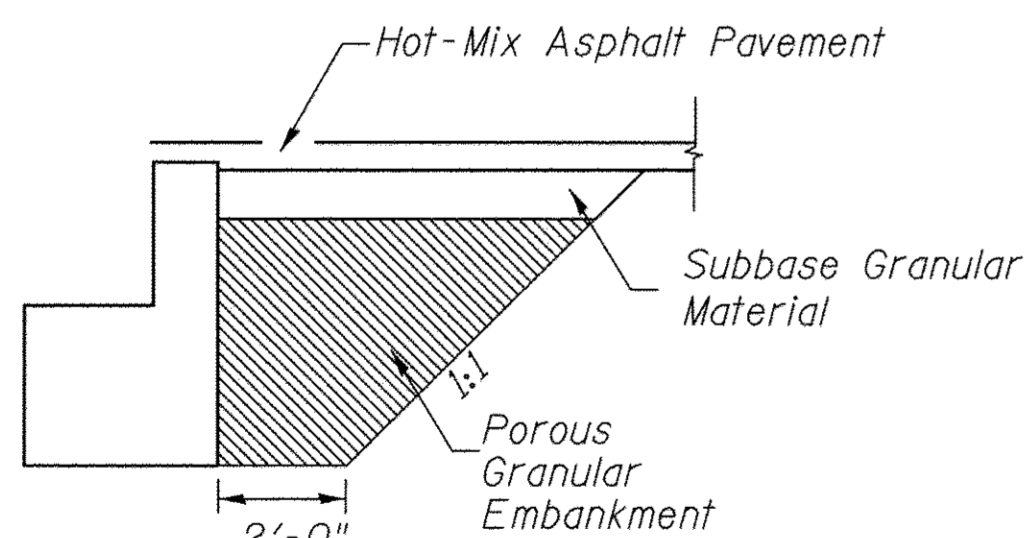
Road to be closed to traffic during construction.



STONE RIPRAP DETAIL

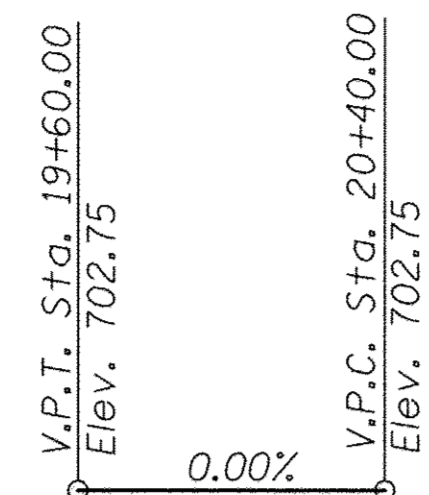


SECTION A-A

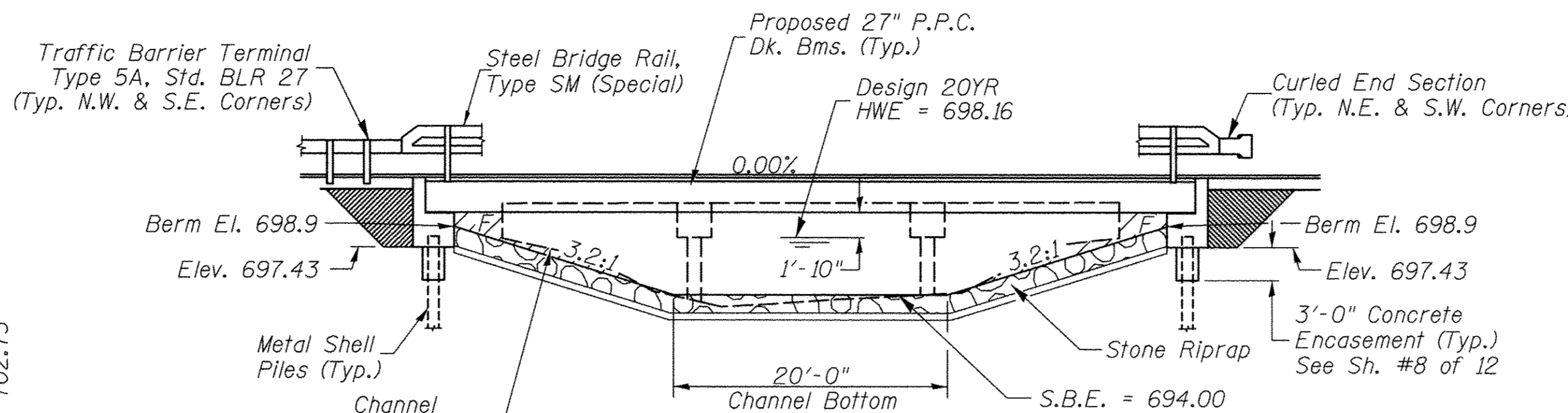


SECTION B-B

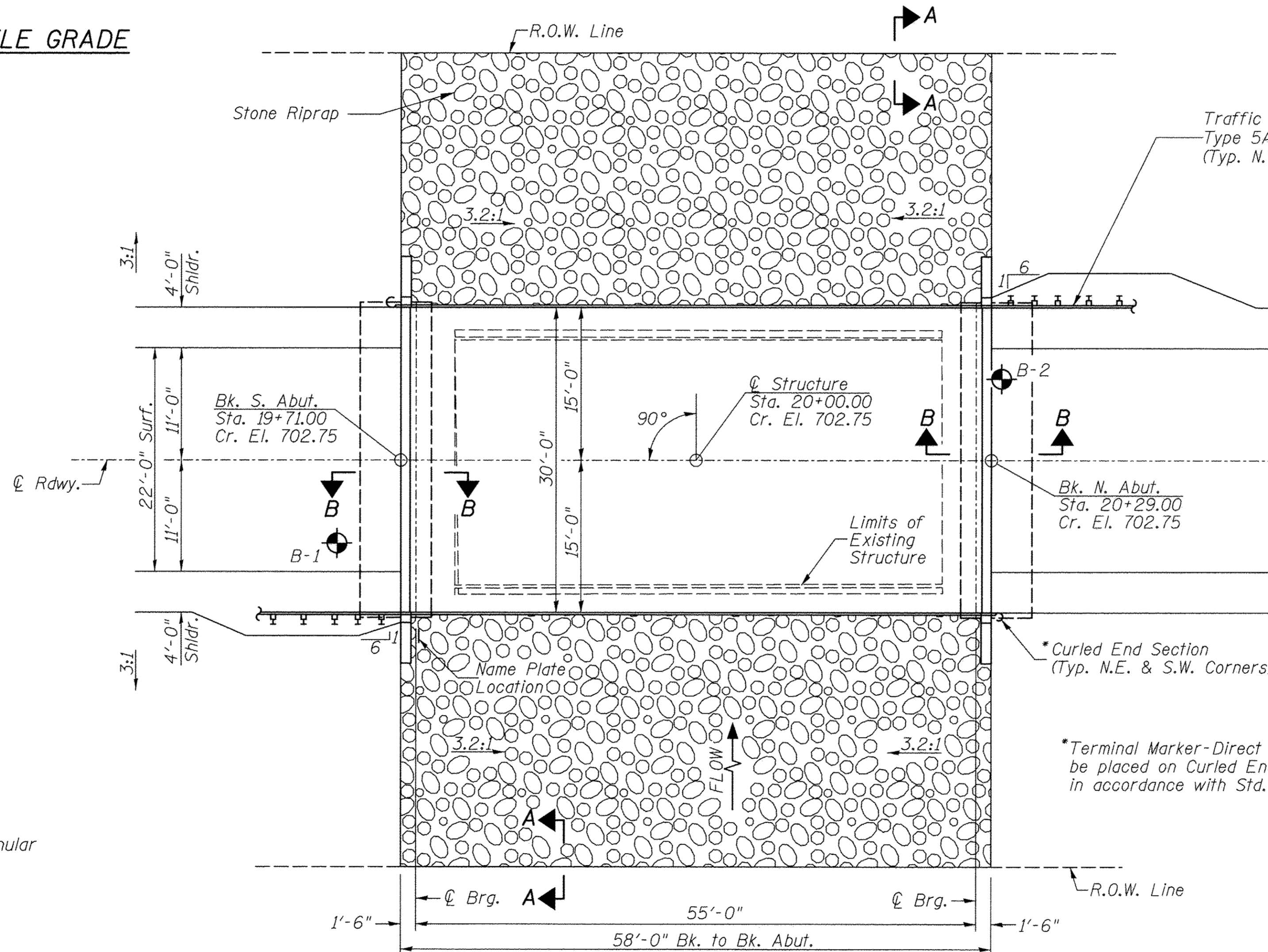
PROFILE GRADE



EXISTING STRUCTURE TO BE REMOVED BY OTHERS



ELEVATION



PLAN

DESIGN SCOUR TABLE

Location	S. Abut.	N. Abut.
Design Scour Elevation	697.43	697.43

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	20	709	126	139	698.16	0.60	0.42	698.76	698.58
Base	100	1,060	146	162	698.64	1.15	0.81	699.79	699.45

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

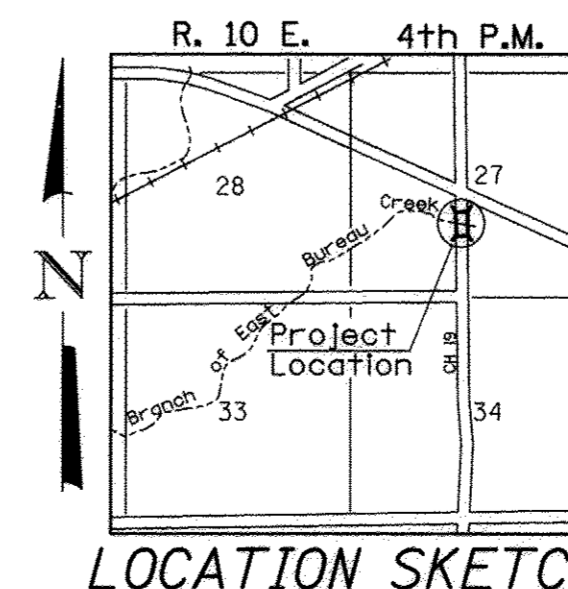
DESIGN STRESSES

(FIELD UNITS) $f'_c = 3,500$ p.s.i. $f_y = 60,000$ p.s.i. (Rein.)

(PRECAST PRESTRESSED UNITS) $f'_c = 6,000$ p.s.i. $f'_{ci} = 5,000$ p.s.i. $f'_s = 270,000$ p.s.i. ($1/2$ " Strands) $f'_{si} = 201,960$ p.s.i. ($1/2$ " Strands)

LOADING HL-93

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



LOCATION SKETCH

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles. For Soil Boring Logs, See Sheets 9-12 of 12. A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(10) of the Standard Specifications. Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated. Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

**BRANCH OF EAST BUREAU CREEK
BUILT 2011 BY
BUREAU COUNTY
SEC. 08-00215-00-BR
S.H. 19 STATION 20+00.00
F.A. PROJ. BRS-1235(105)
STR. NO. 006-3018 LOADING HL-93**

NAME PLATE

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

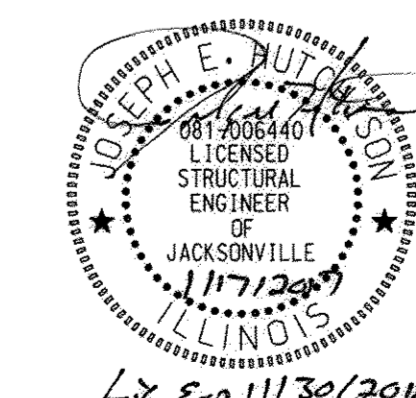
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	50	50
① Stone Riprap, Class A5 (Special)	TON	—	560	560
Concrete Structures	CU YD	—	25.7	25.7
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,685	—	1,685
Reinforcement Bars	POUND	—	2,850	2,850
Steel Bridge Rail, Type SM (Special)	FOOT	116	—	116
Furnishing Metal Shell Piles 12"x0.250"	FOOT	—	360	360
Driving Piles	FOOT	—	360	360
Test Pile Metal Shells	EACH	—	2	2
Concrete Encasement	CU YD	—	2.6	2.6
Name Plates	EACH	—	1	1
Waterproofing Membrane System	SQ YD	193	—	193
Portland Cement Mortar Fairing Course	FOOT	150	—	150
Hot-Mix Asphalt Surface Course, Mix "C", N50	TON	20	—	20
① Porous Granular Embankment	CU YD	—	36.1	36.1

① See Special Provisions

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

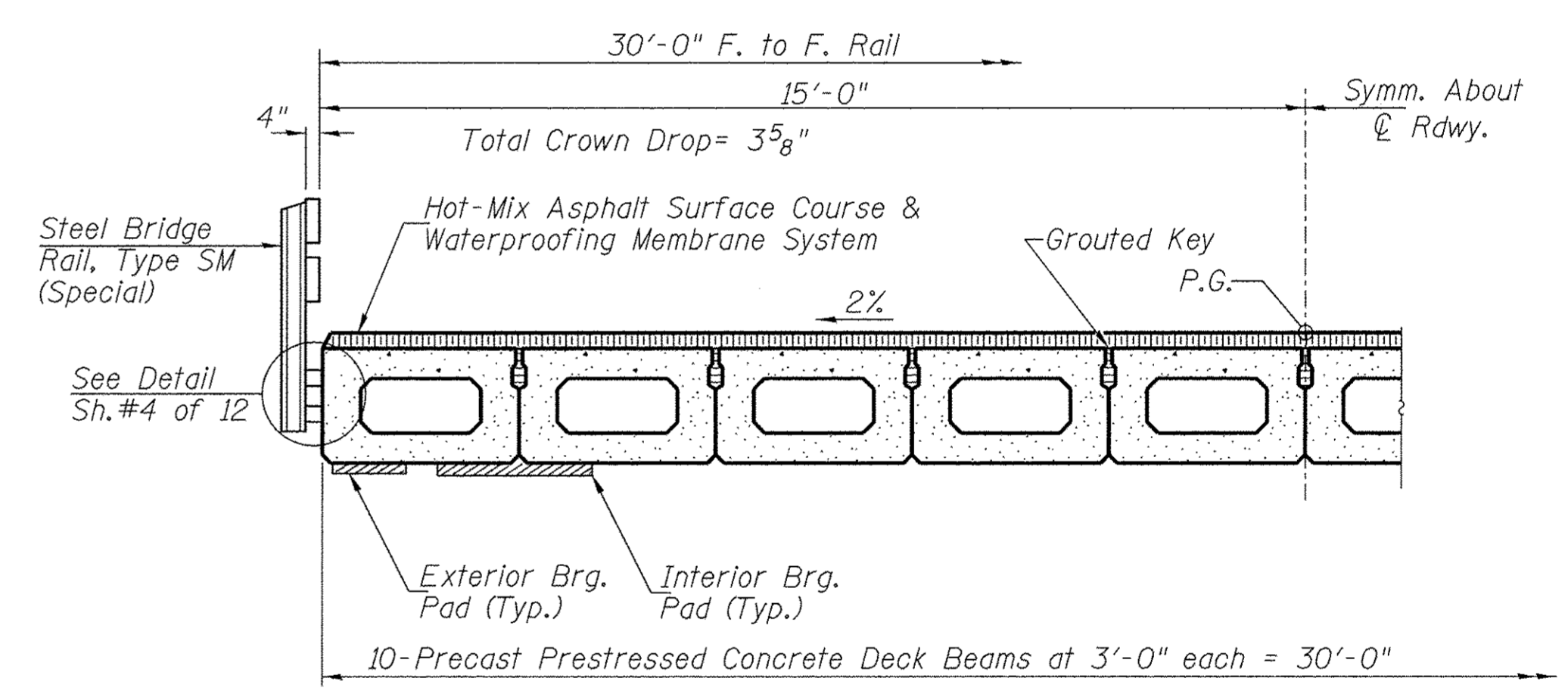
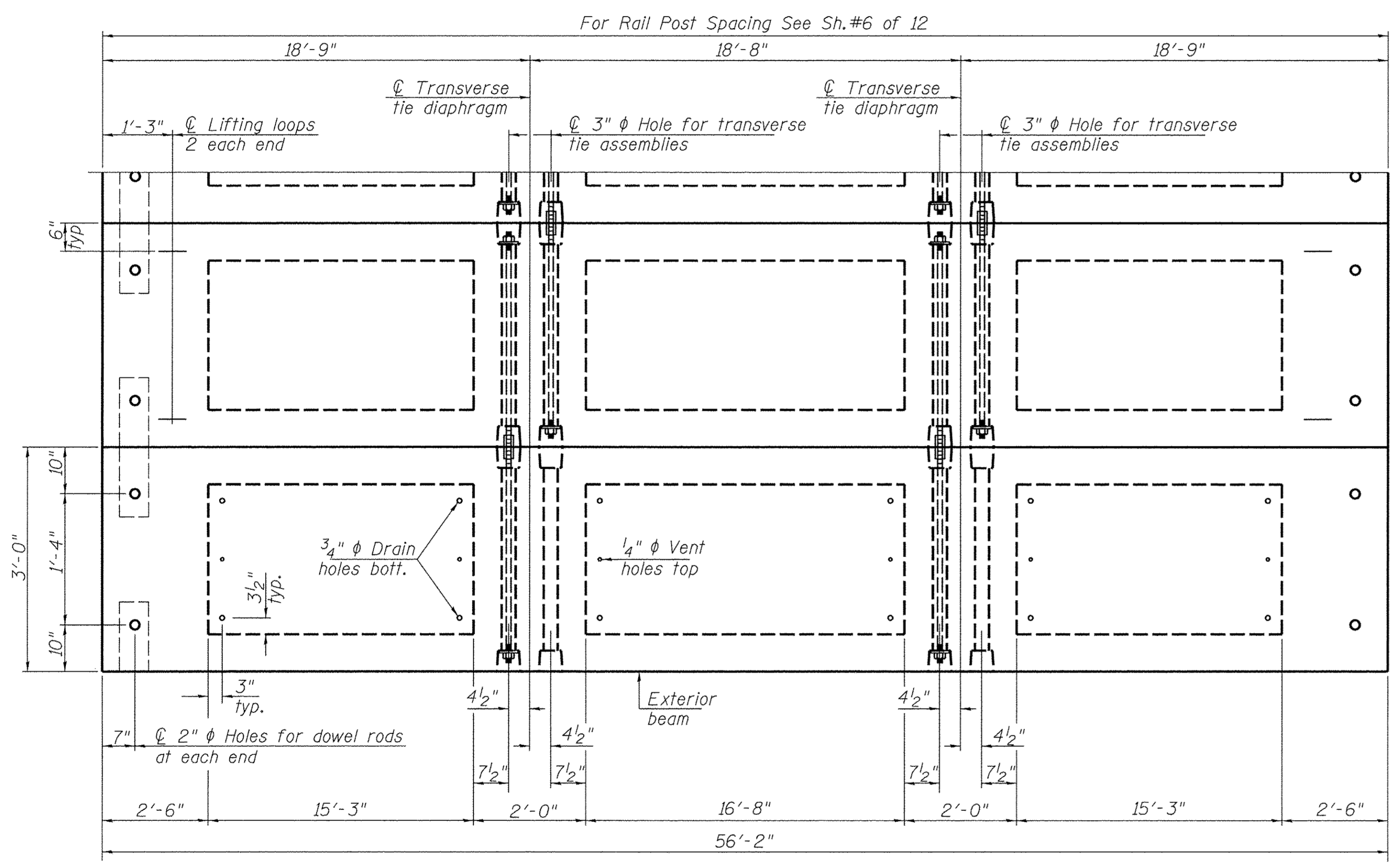
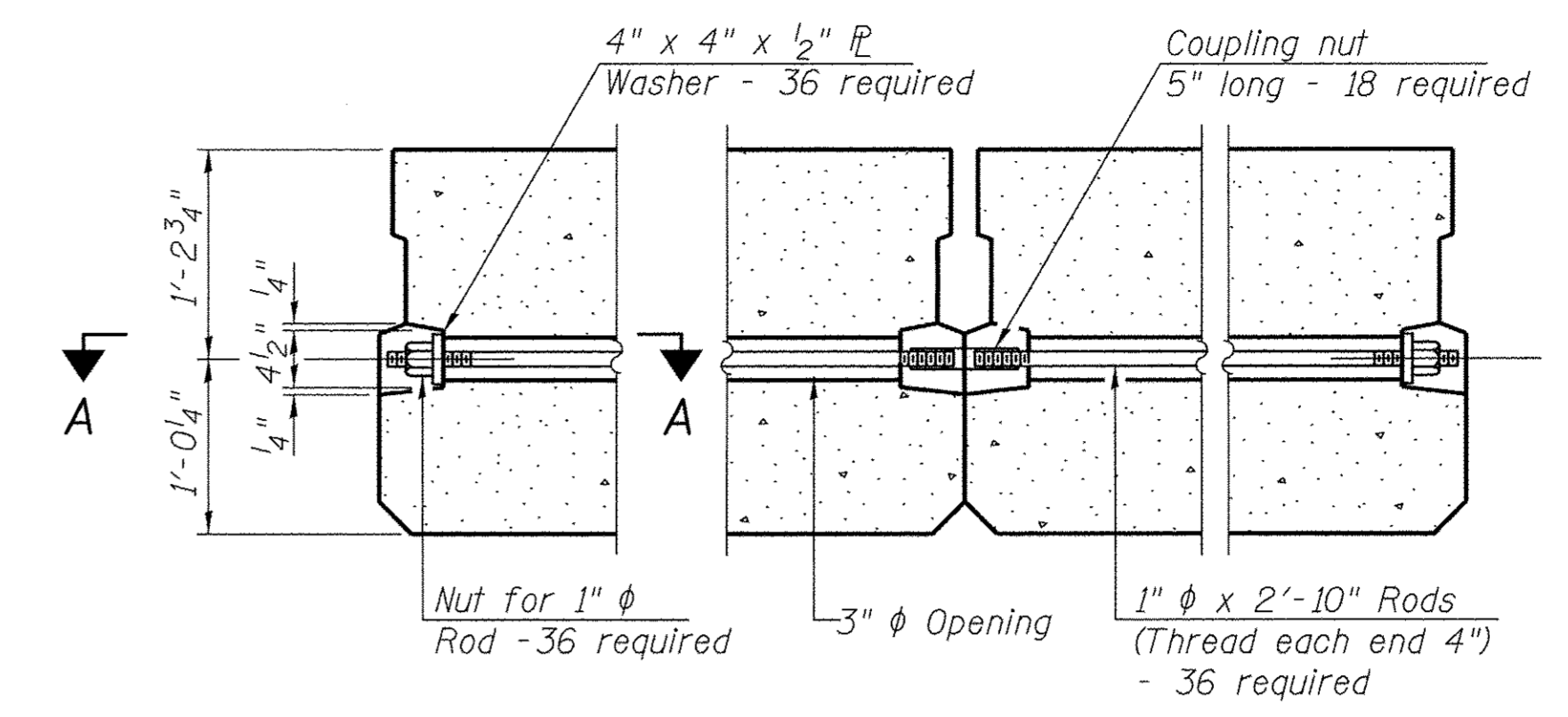
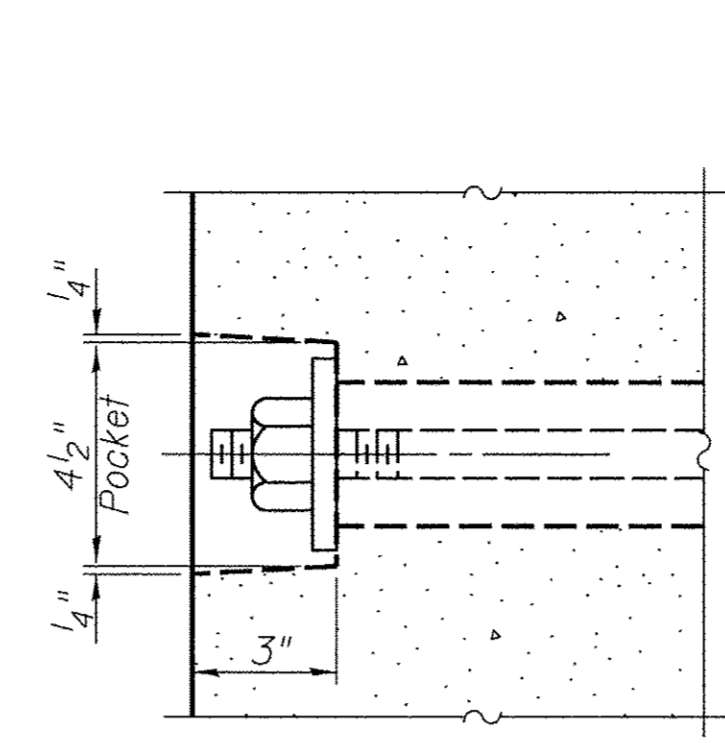
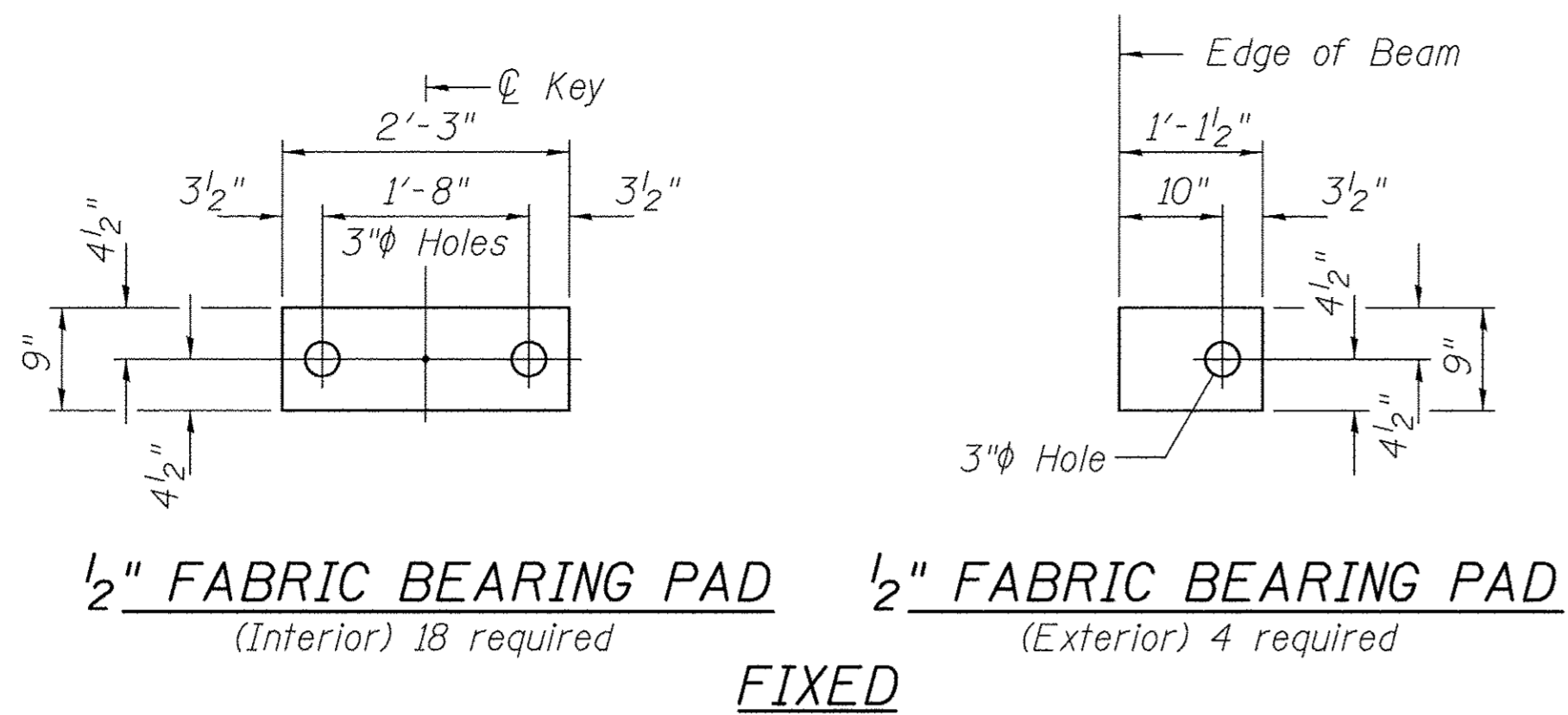
Joseph E. Duijck 11/17/2017
Illinois Structural No. 6440
Expires 11/30/2018



GENERAL PLAN & ELEVATION

**BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK**

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	1235	08-00215-00-BR	BUREAU	23	7
S.N. 006-3018			CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-1235(105)		



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

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.

Reinforcement bars shall conform to ASTM A 706, Grade 60.

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.

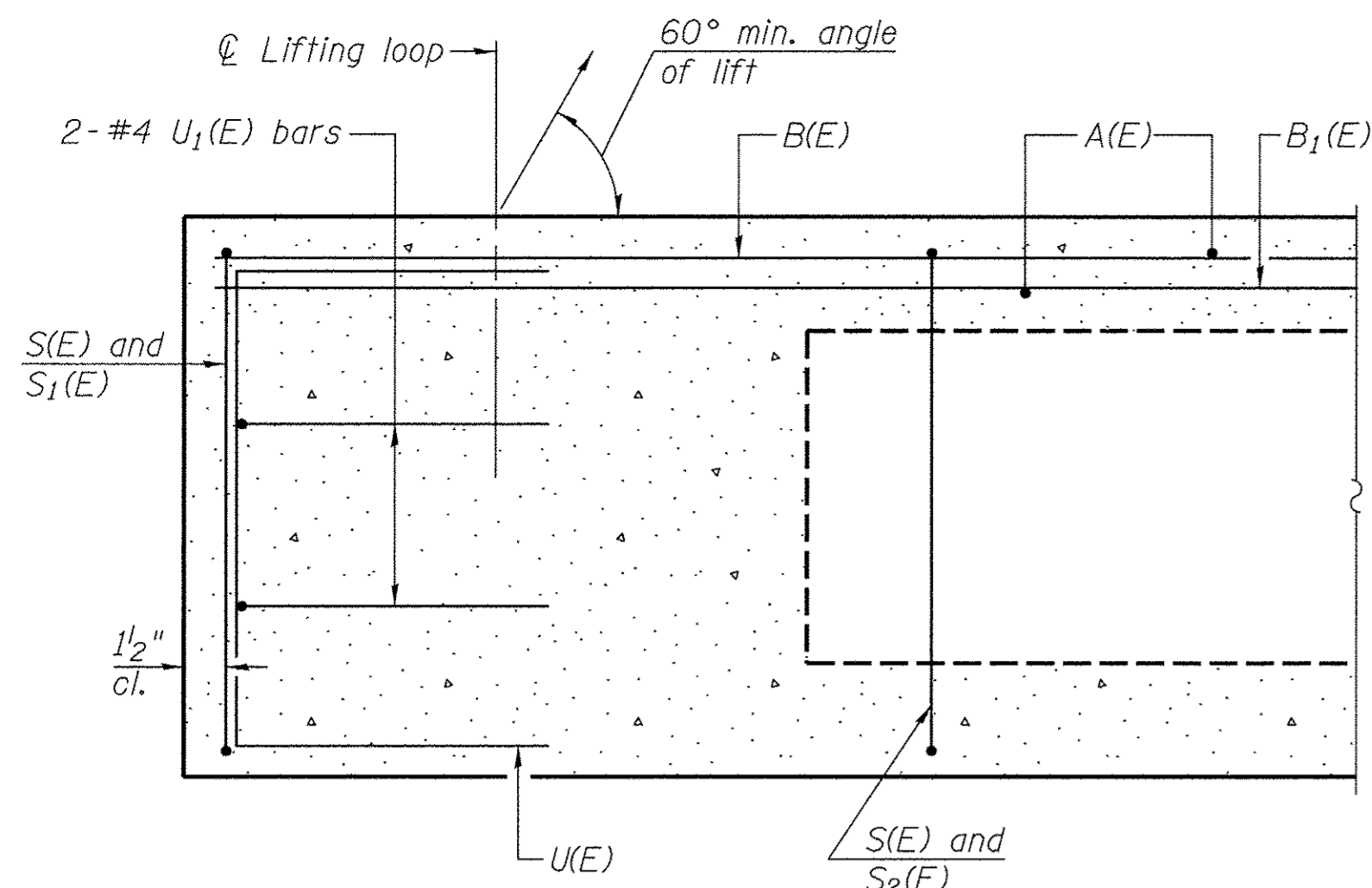
Compressive strength of prestressed concrete at release, f'cl, shall be 5000 psi.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,685

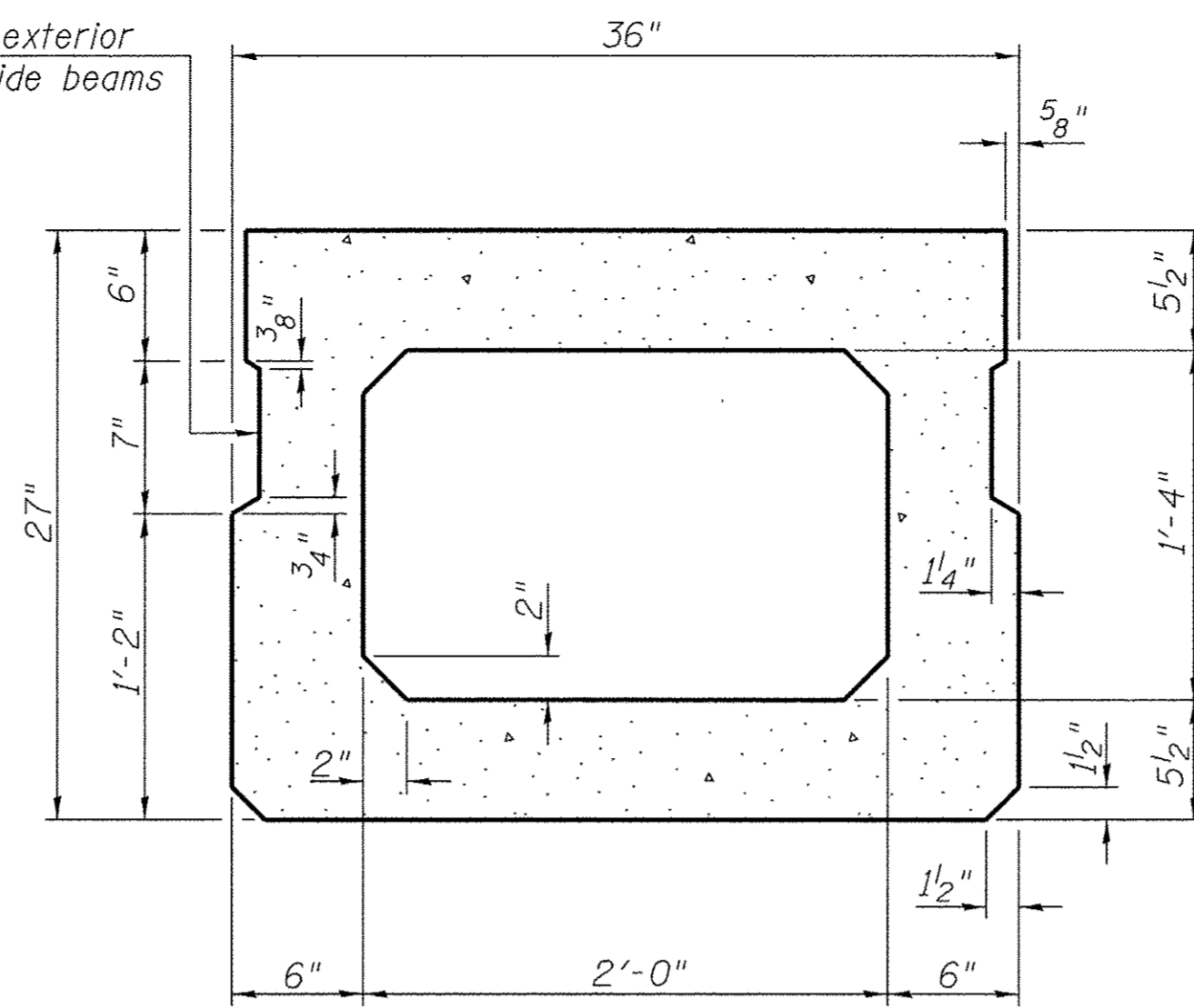
SUPERSTRUCTURE
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	1235	08-00215-00-BR	BUREAU	23	8
S.N. 006-3018			CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1235(105)		



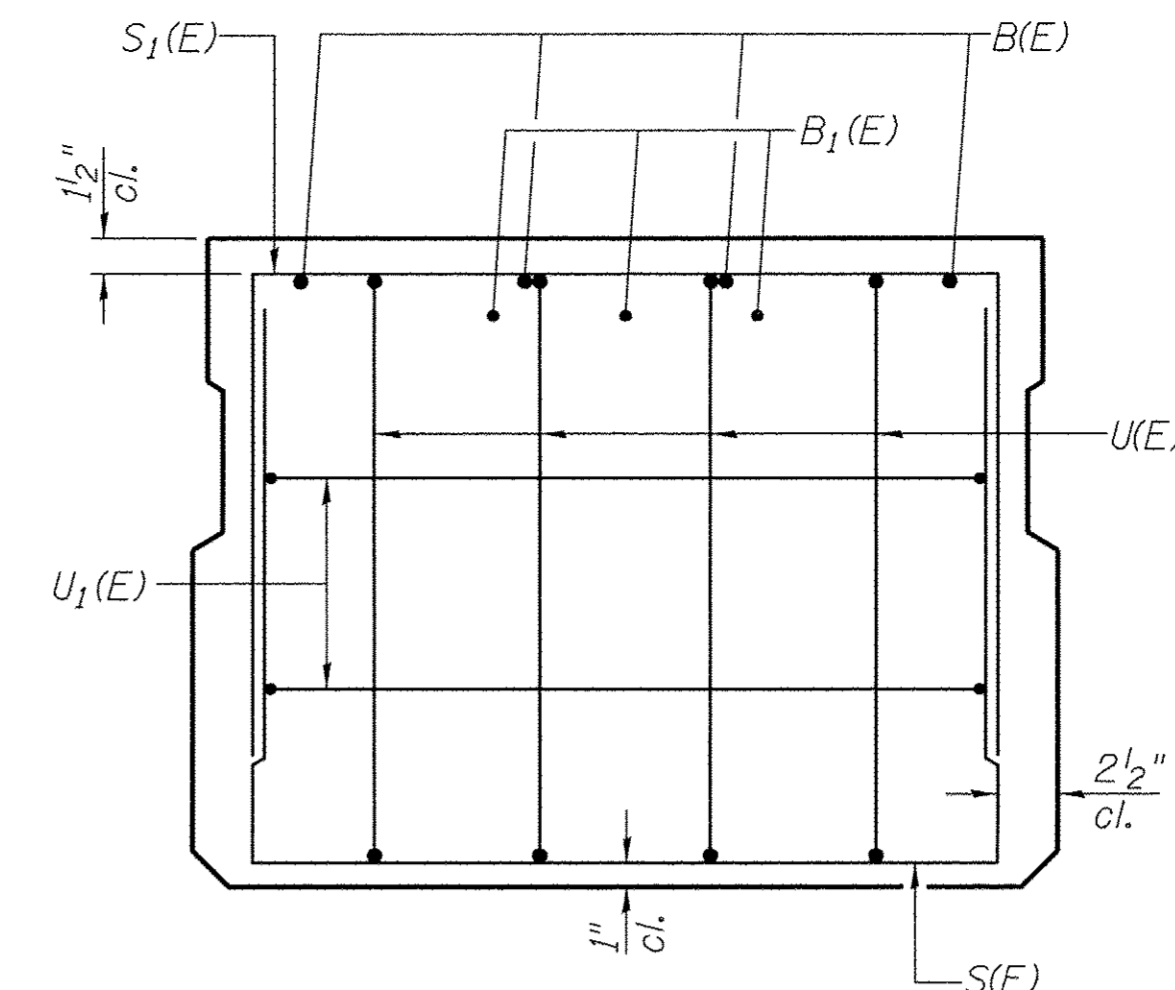
SECTION C-C

**Omit key on exterior face of outside beams

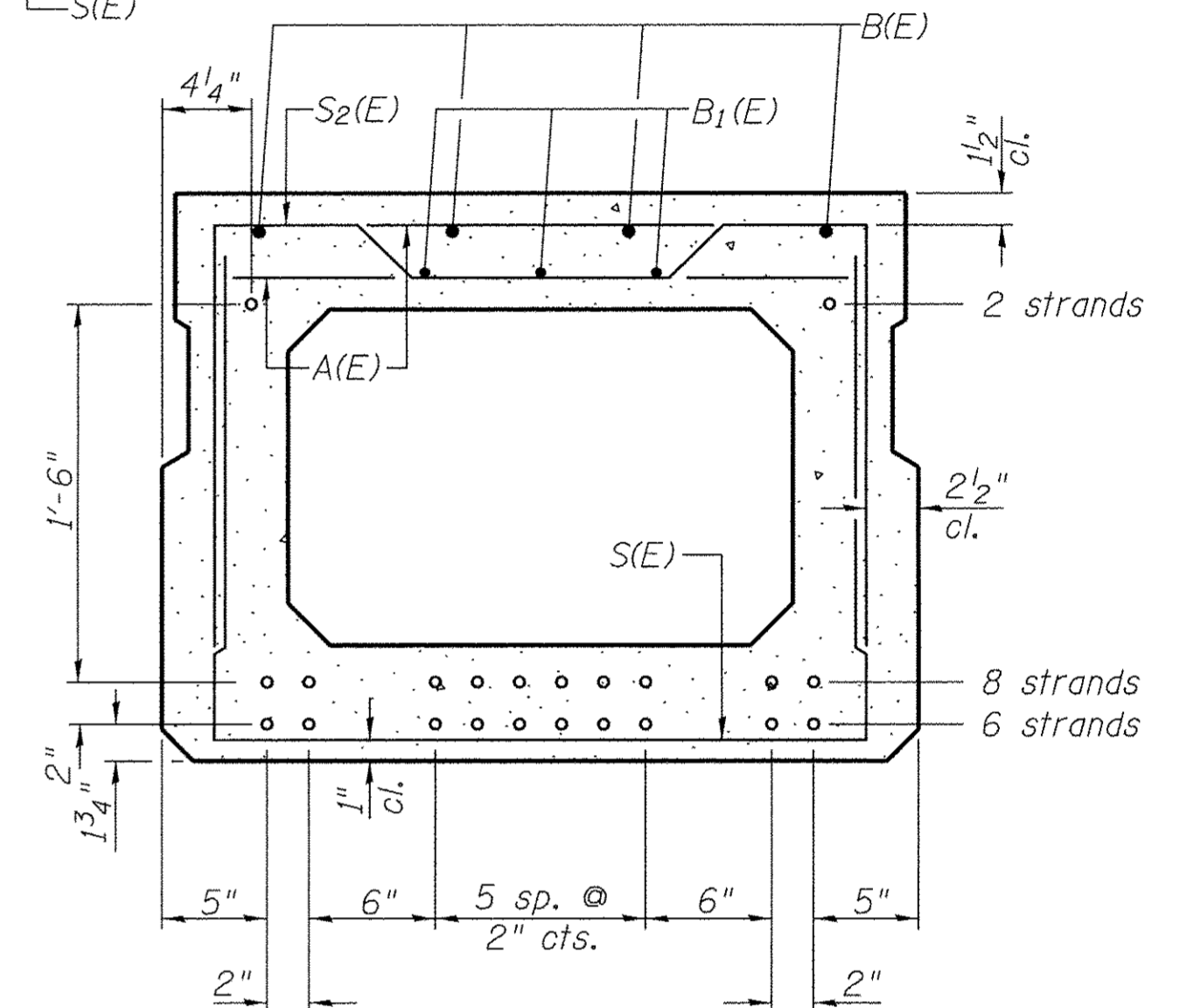


SECTION A-A
(Showing Dimensions)

**Rail post anchor devices (Sheet 4 of 12) to be cast into exterior face of outside beams.



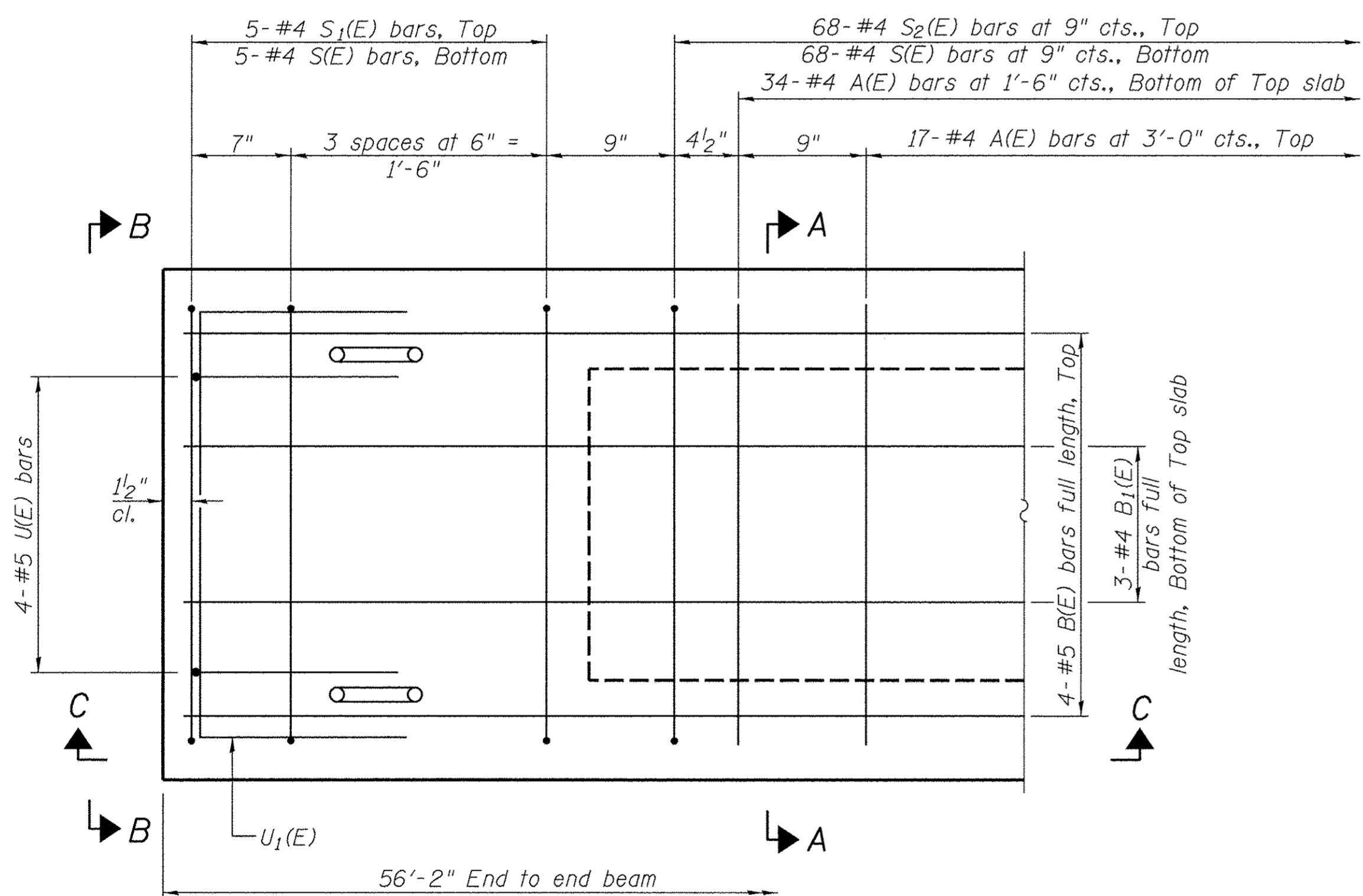
VIEW B-B



SECTION A-A

16-1/2" Strands Each Strand Stressed to 30,900 Lbs.
6-Strands 1 3/4" up, 8-Strands 3 3/4" up, 2-Strands 1'-9 3/4" up

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

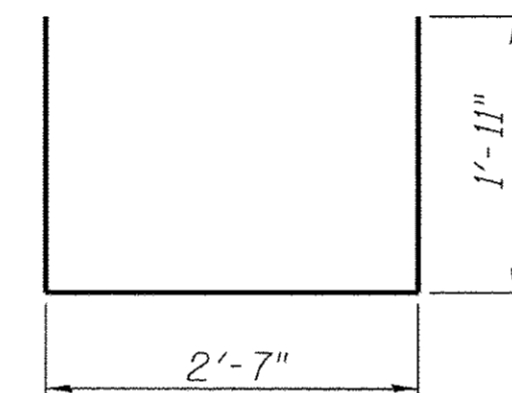


PLAN VIEW

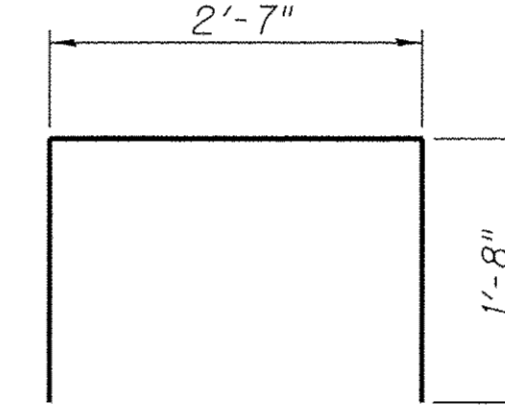
MINIMUM BAR LAP

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

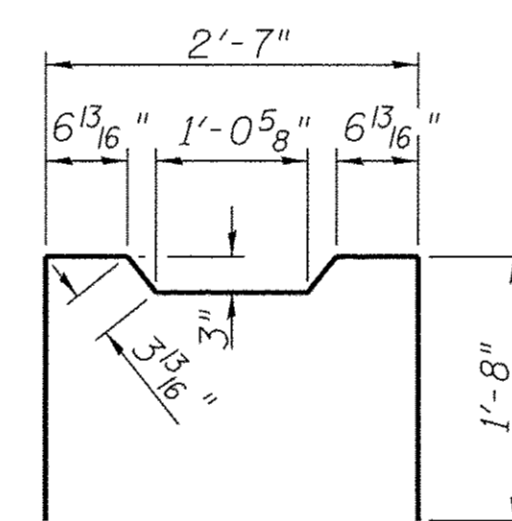
Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



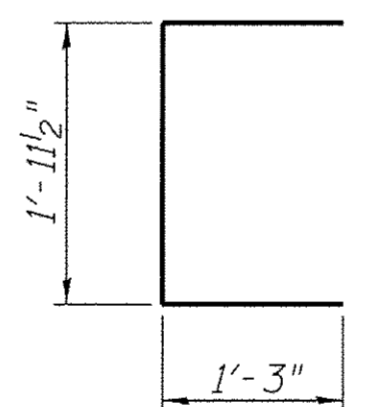
BAR S1(E)



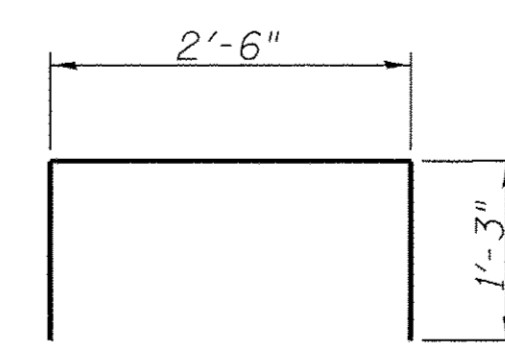
BAR S(E)



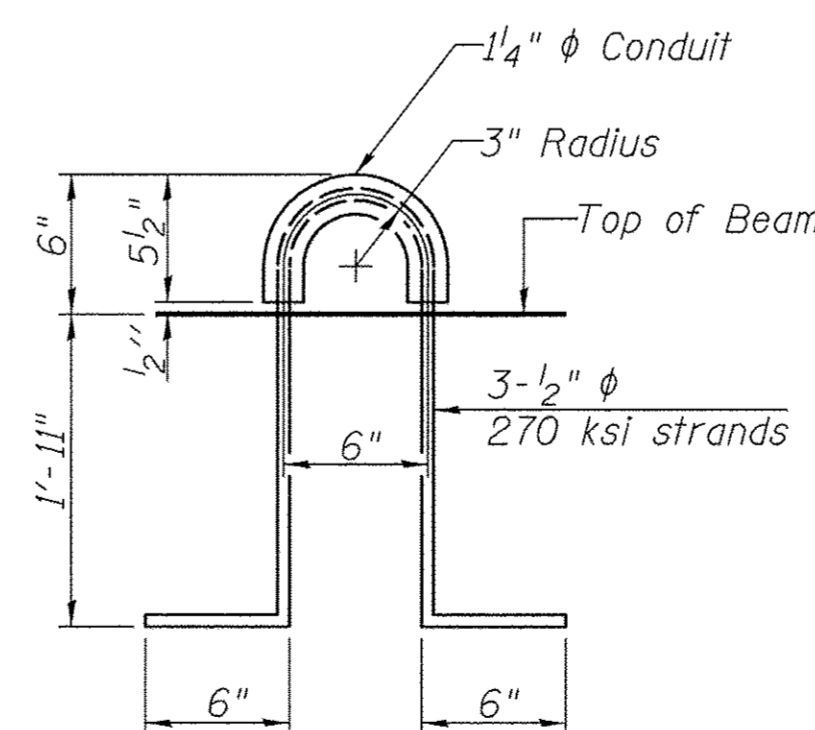
BAR S2(E)



BAR U(E)



BAR U1(E)



LIFTING LOOP DETAIL

BAR LIST-ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	51	#4	2'-7"	—
B(E)	4	#5	*55'-11"	—
B1(E)	3	#4	*55'-11"	—
S(E)	78	#4	6'-5"	U
S1(E)	10	#4	5'-11"	U
S2(E)	68	#4	6'-2"	U
U(E)	8	#5	4'-6"	U
U1(E)	4	#4	5'-0"	U

* Total Length, Lap as necessary

Note: See Sheet 2 of 12 for additional details and Bill of Material.

SUPERSTRUCTURE DETAILS

BUREAU COUNTY

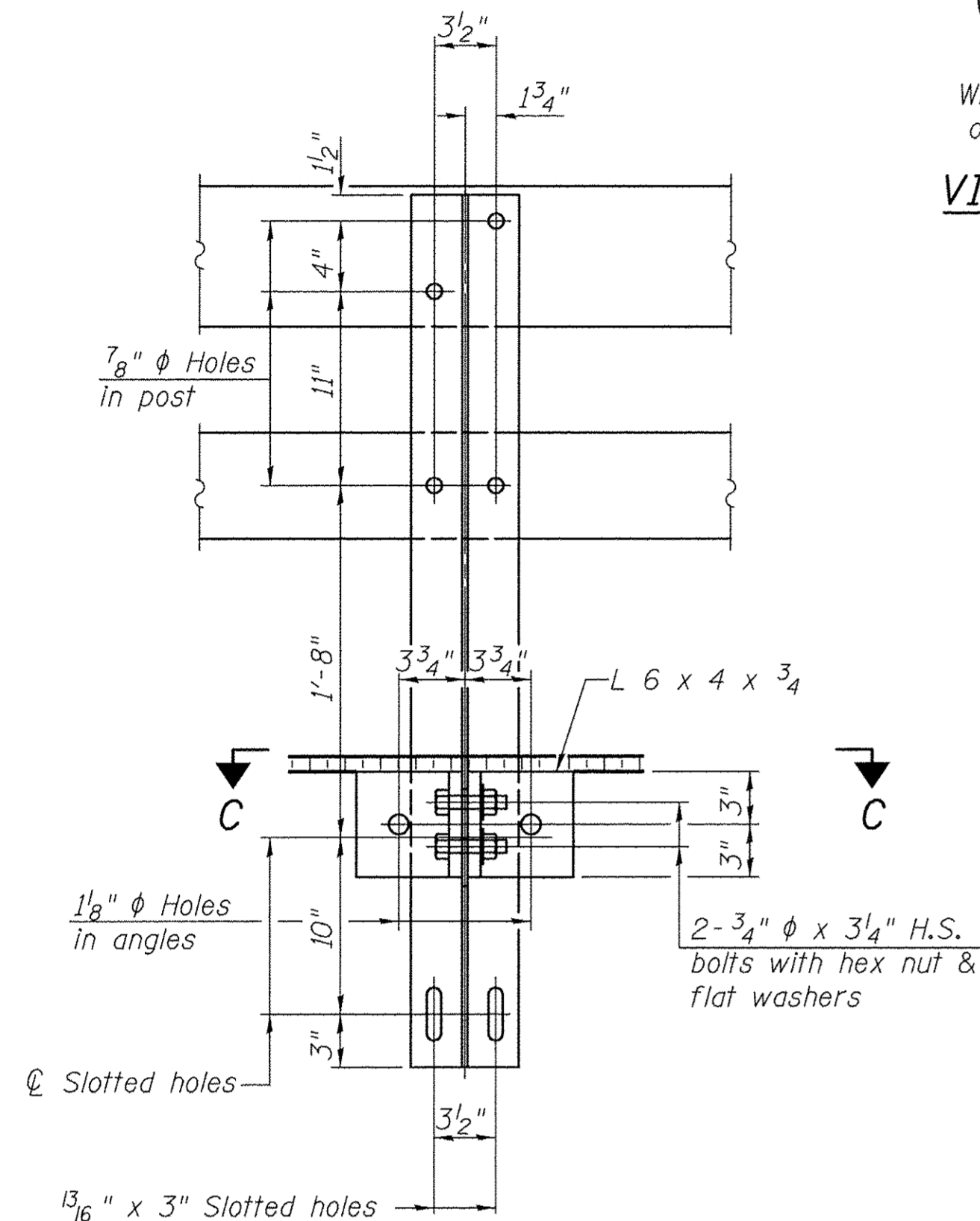
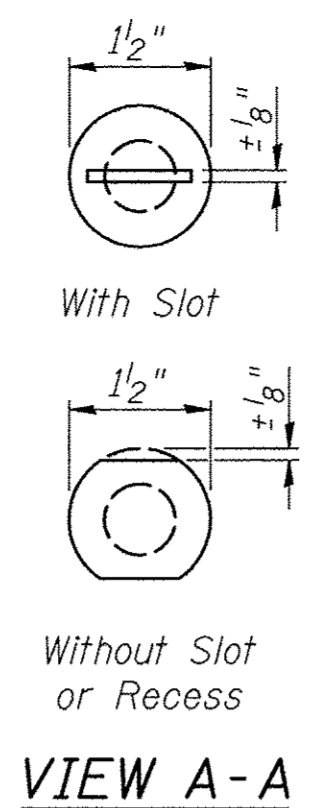
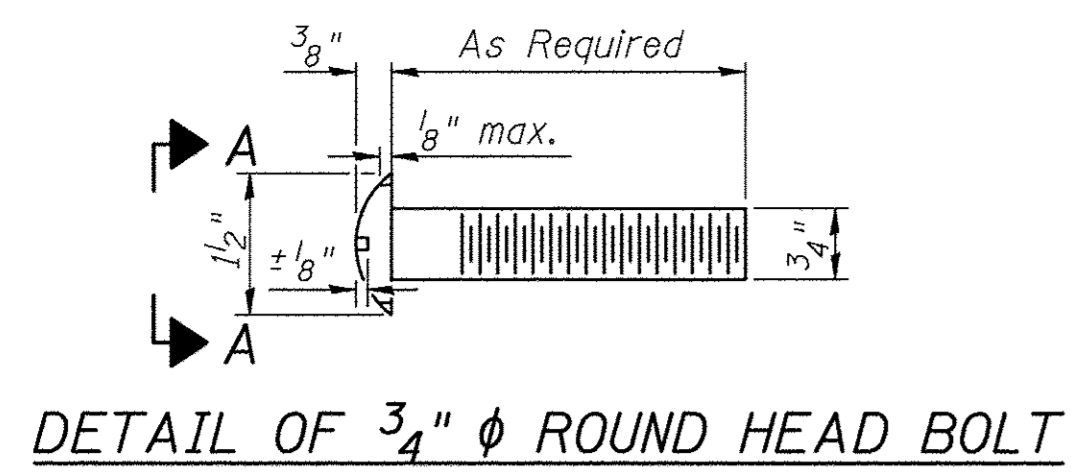
SECTION 08-00215-00-BR

COUNTY HIGHWAY 19 OVER

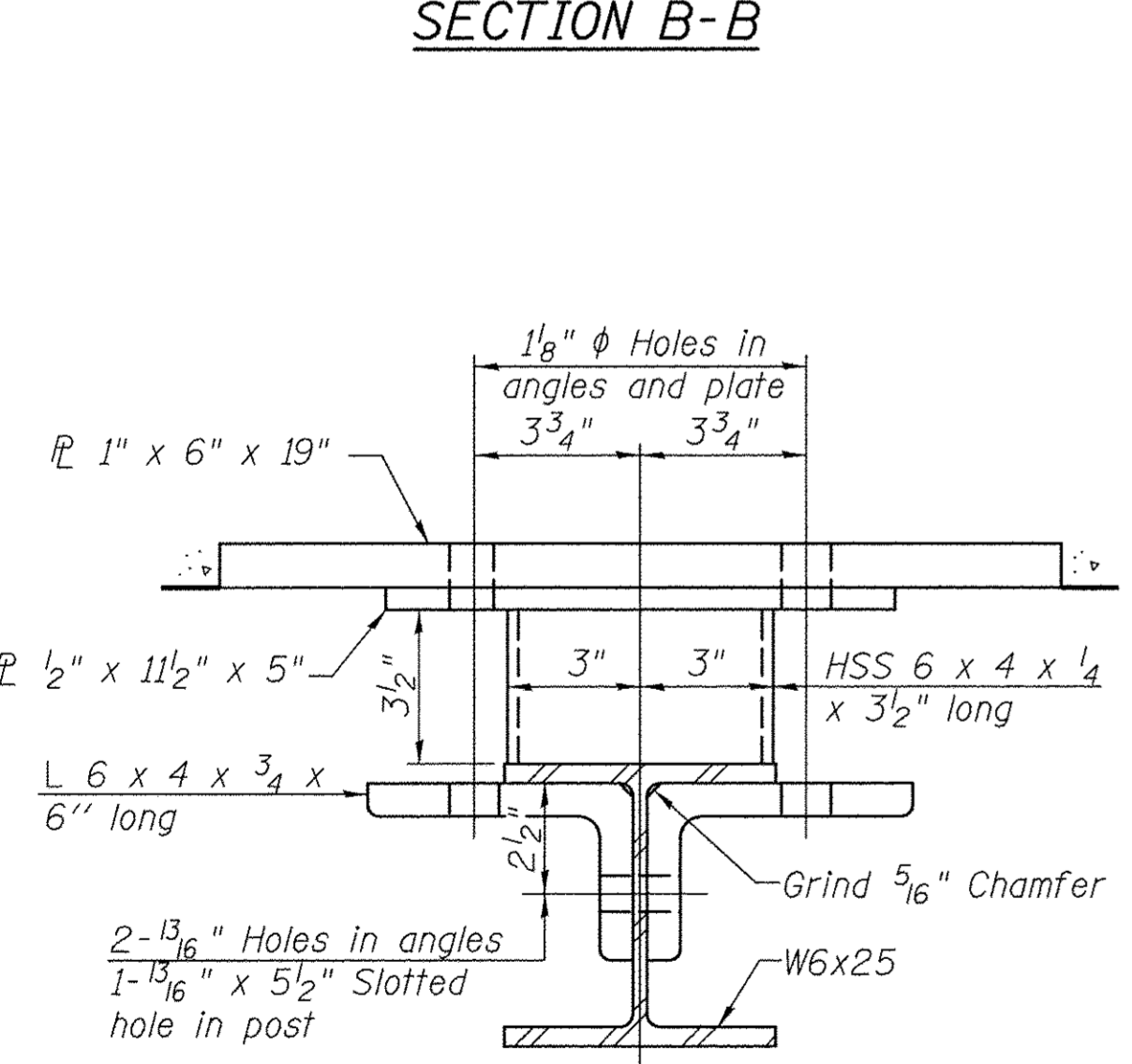
BRANCH OF EAST BUREAU CREEK

SHEET NO. 3 12 SHEETS	F.A.S. RTE. 1235	SECTION 08-00215-00-BR	COUNTY BUREAU	TOTAL SHEETS 23	SHEET NO. 9
	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			

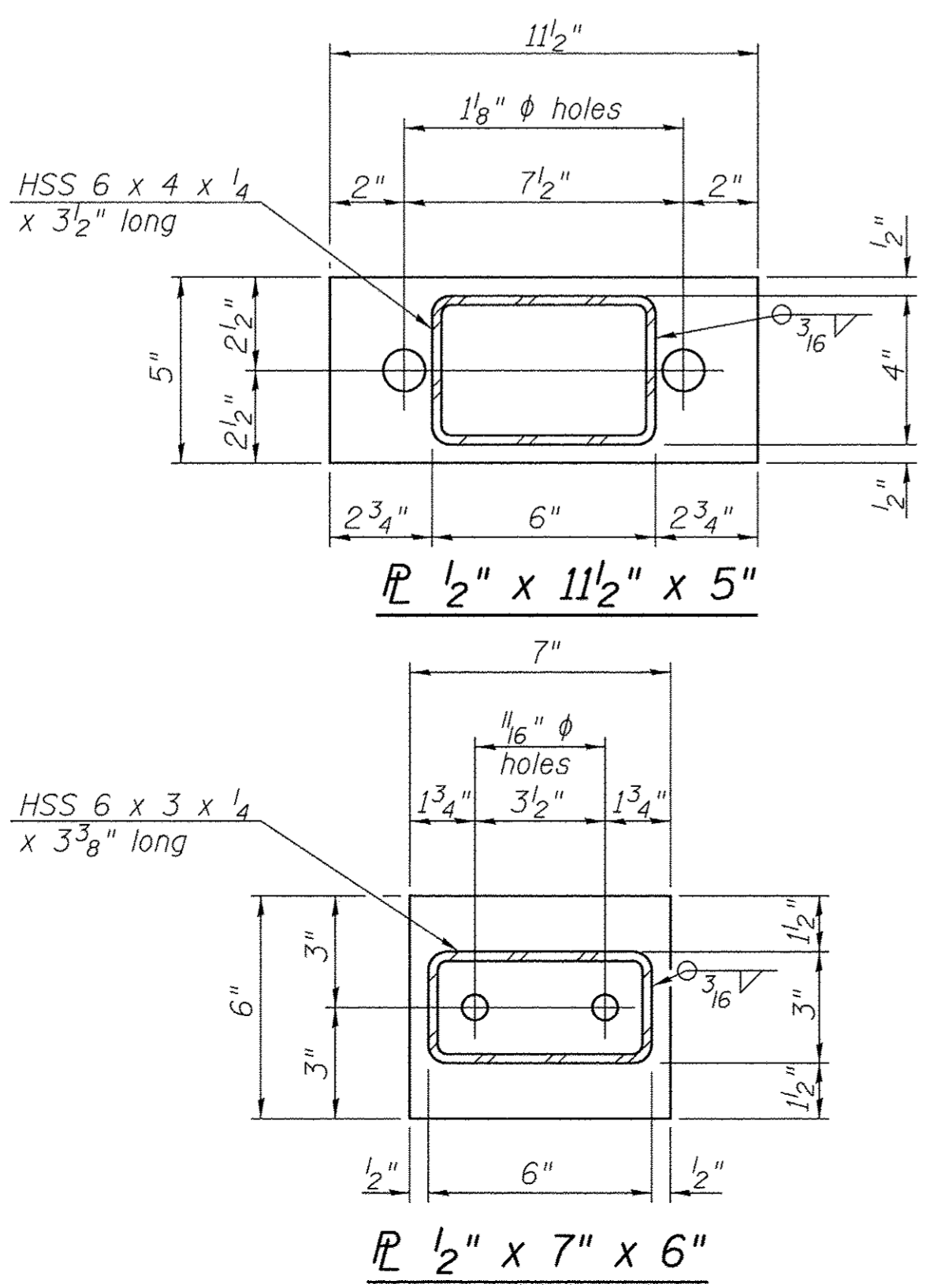
FOR RAIL POST SPACING SEE SH.#6 OF 12



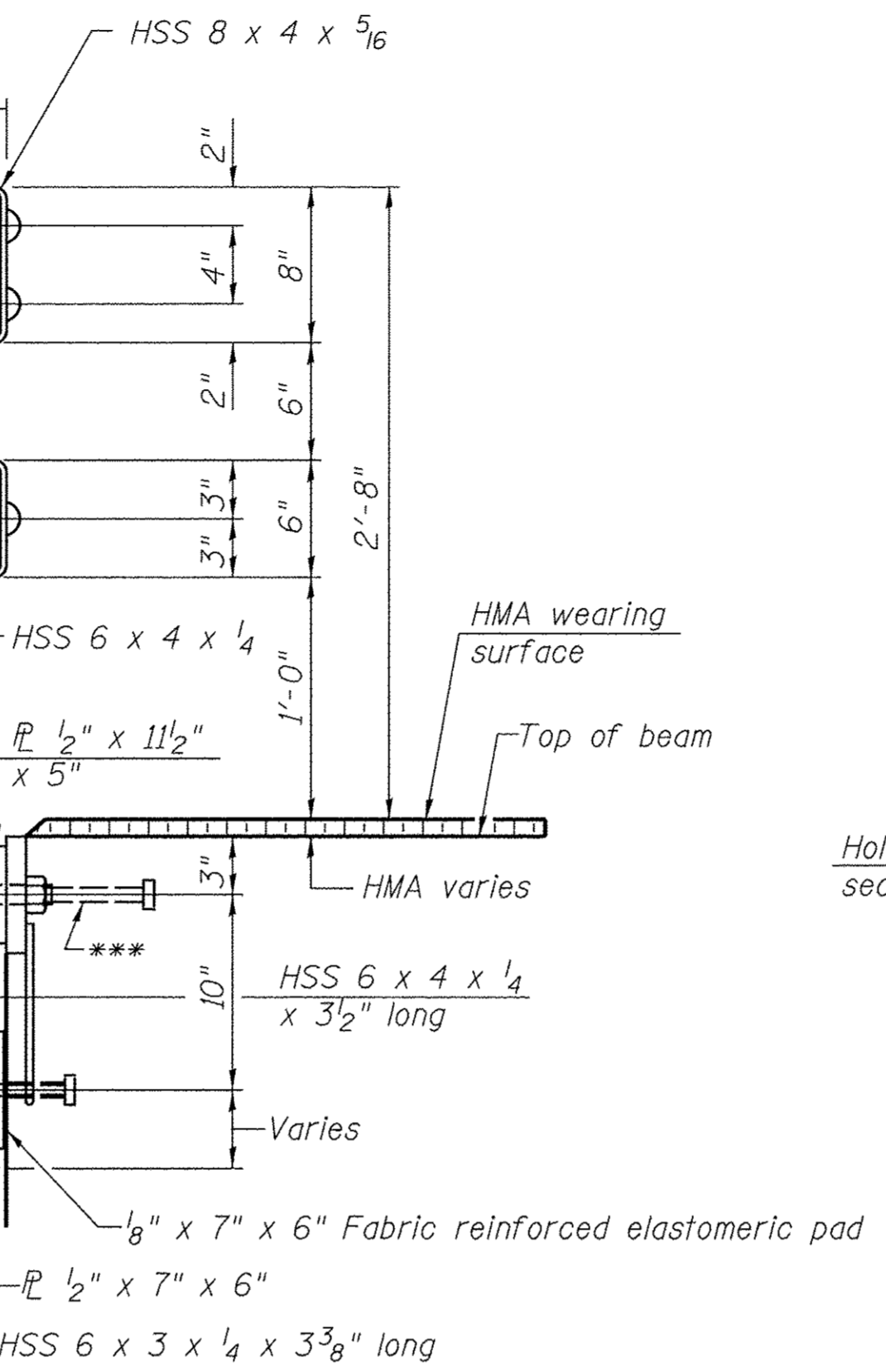
SECTION B-B



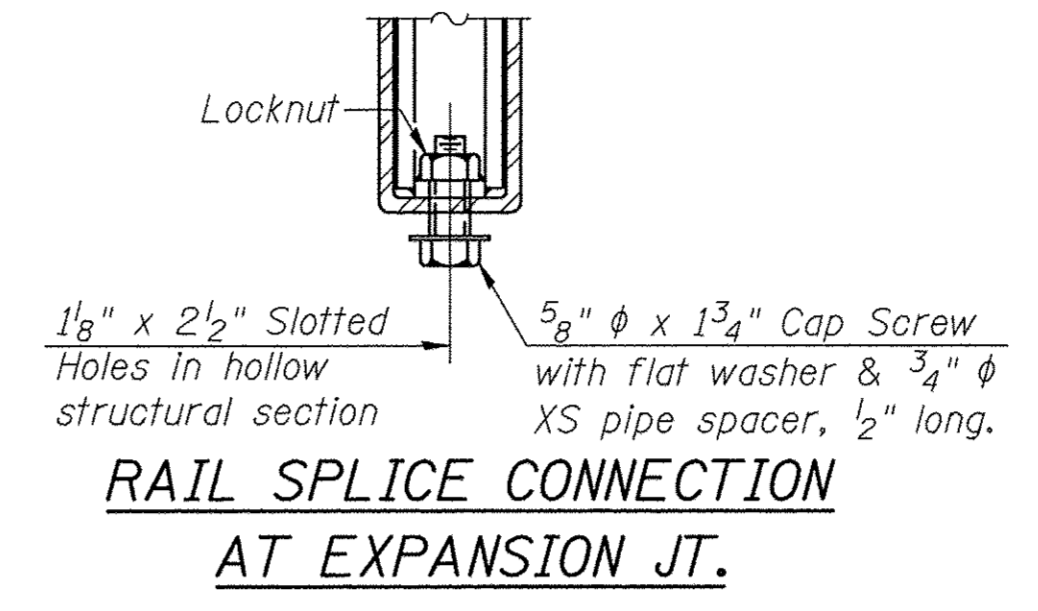
SECTION C-C



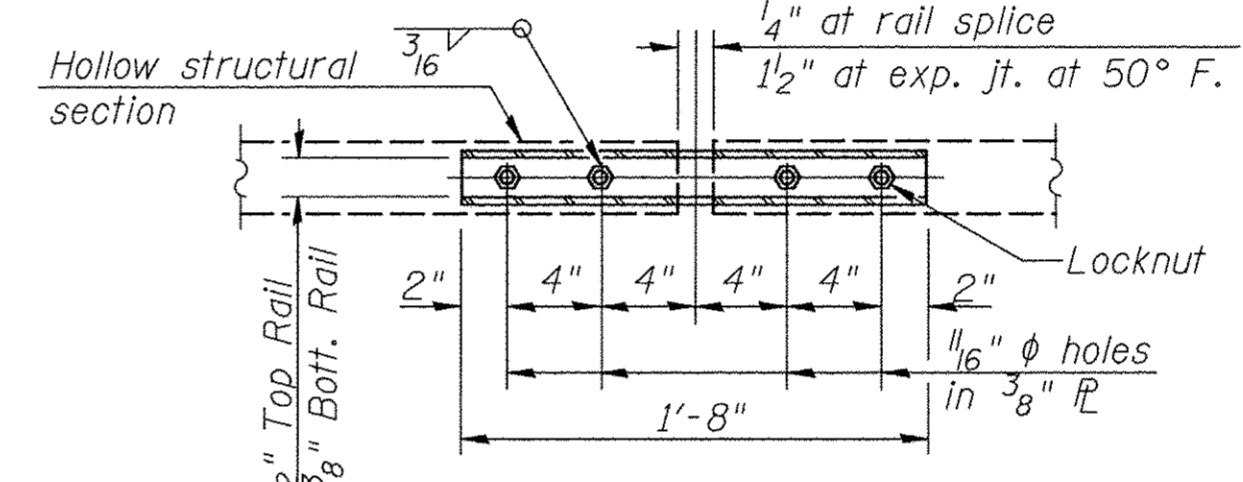
ANCHOR DEVICE



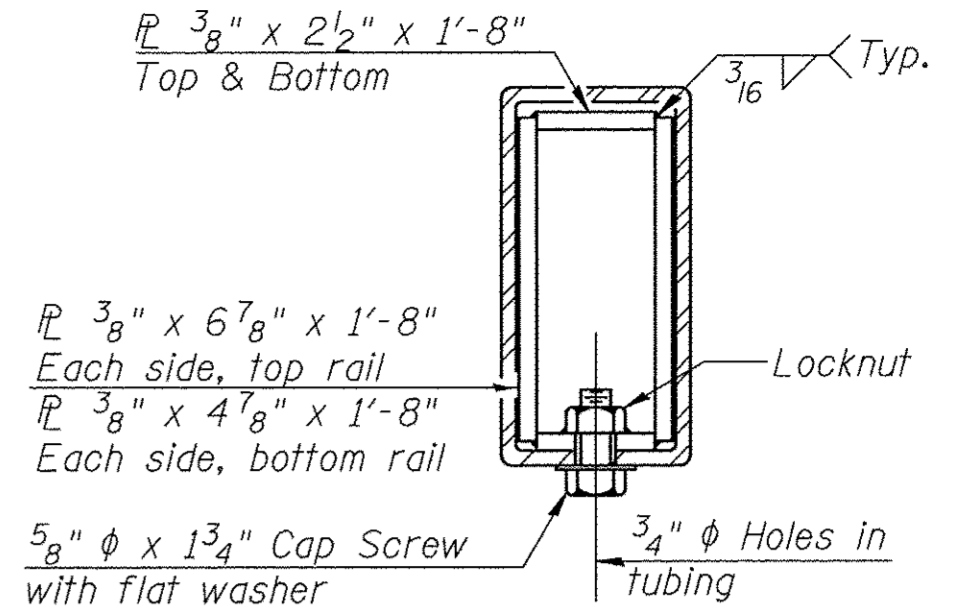
SECTION AT RAIL POST



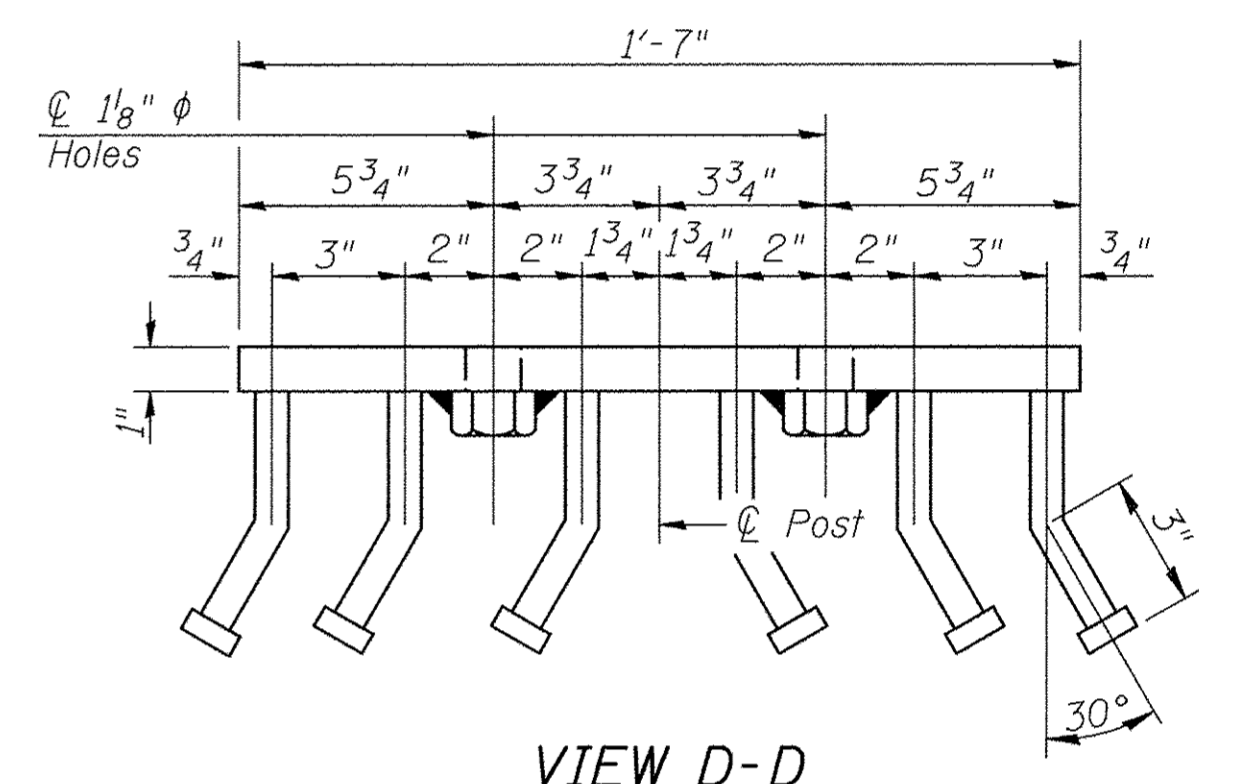
RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE R TYPICAL



SECTION AT RAIL SPLICE



VIEW D-D

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 Bridge Rail, Type SM (Special).
 All steel rail members 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.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Steel Bridge Rail, Type SM (Special)	FOOT	116

STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
 BUREAU COUNTY
 SECTION 08-00215-00-BR
 COUNTY HIGHWAY 19 OVER
 BRANCH OF EAST BUREAU CREEK

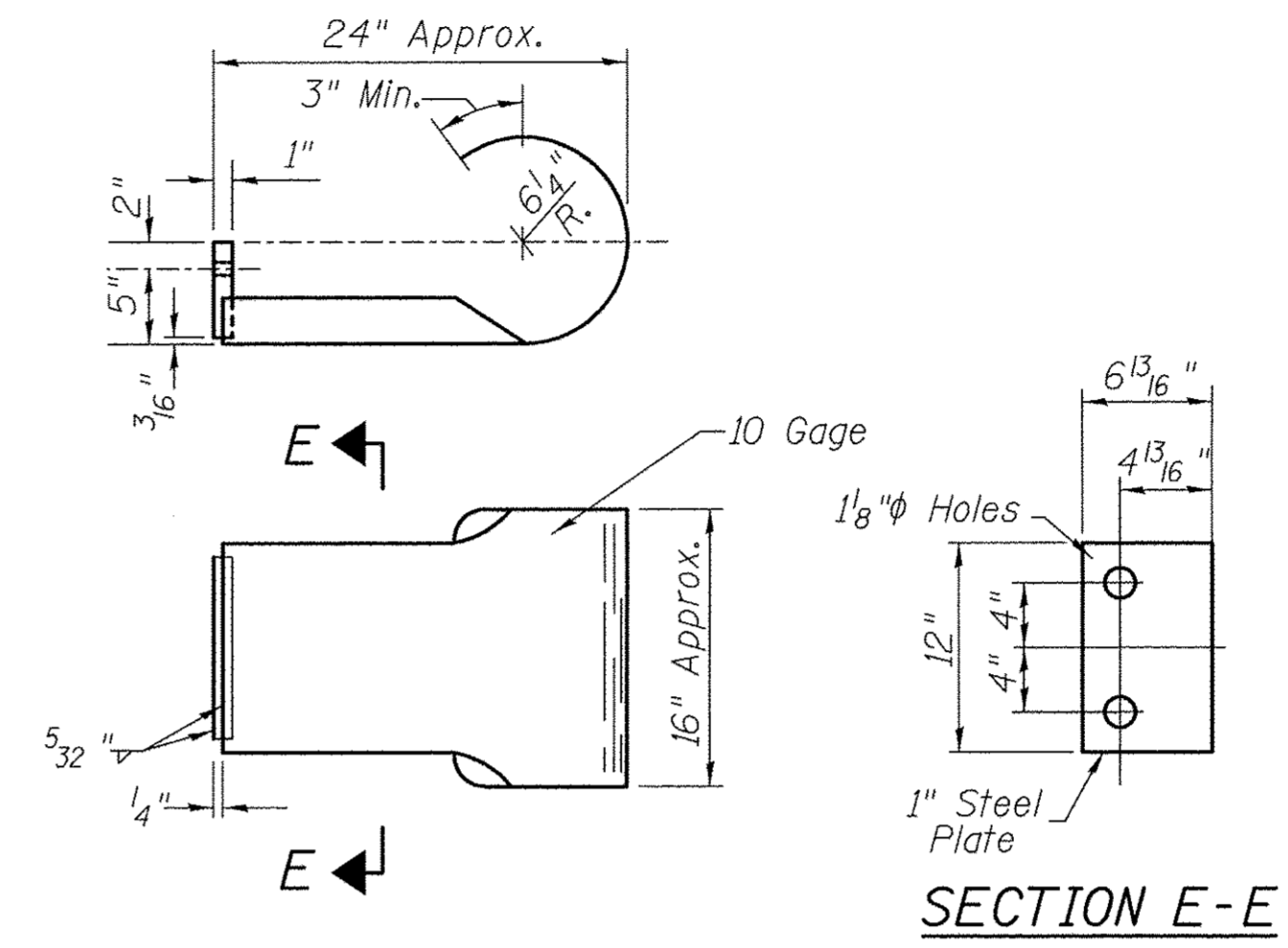
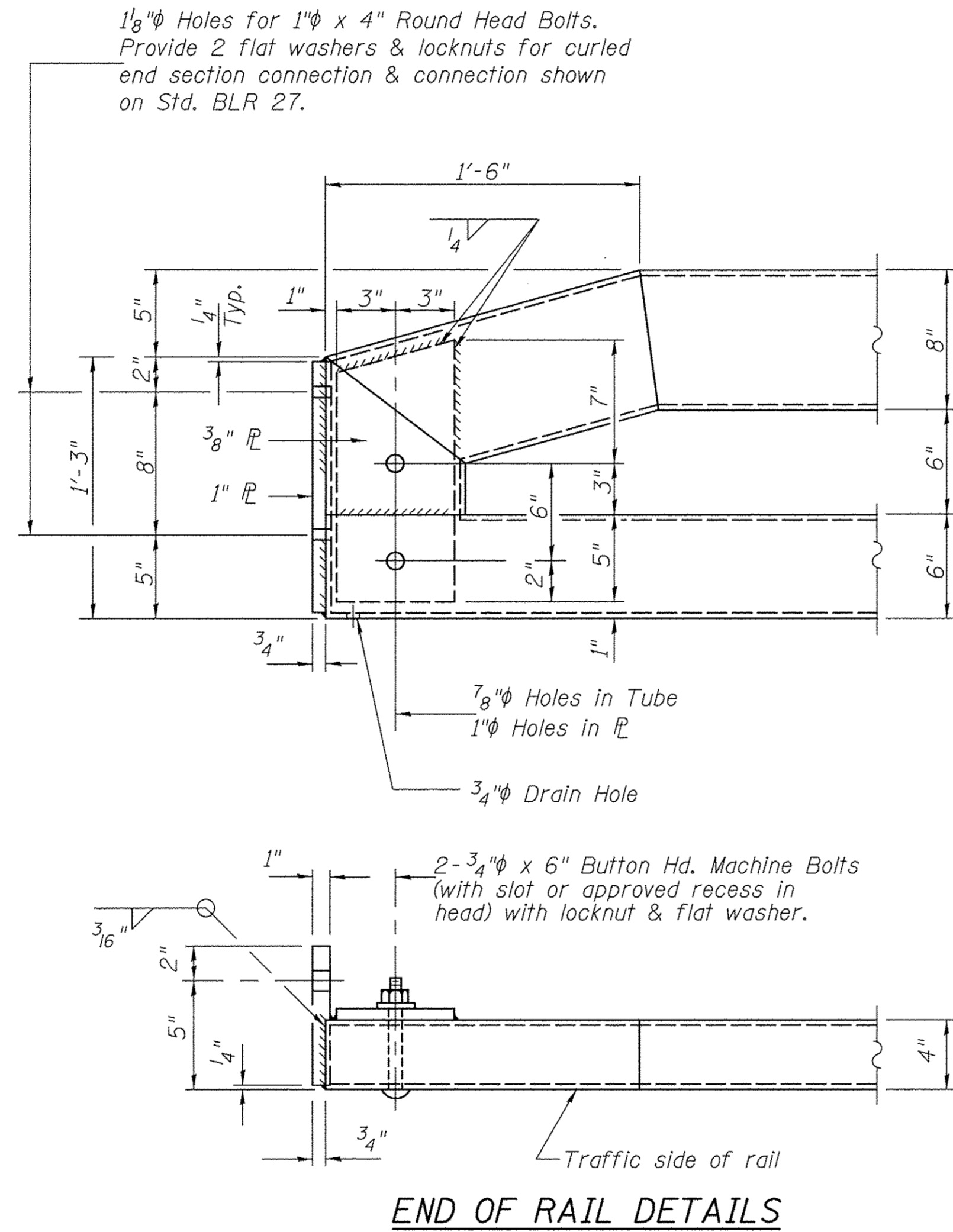
***Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

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

(Sheet 1 of 2)

SHEET NO. 4 12 SHEETS	F.A.S. RTE. 1235	SECTION 08-00215-00-BR	COUNTY BUREAU	TOTAL SHEETS 23	SHEET NO. 10
	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			

FOR RAIL POST SPACING SEE SH.#6 OF 12



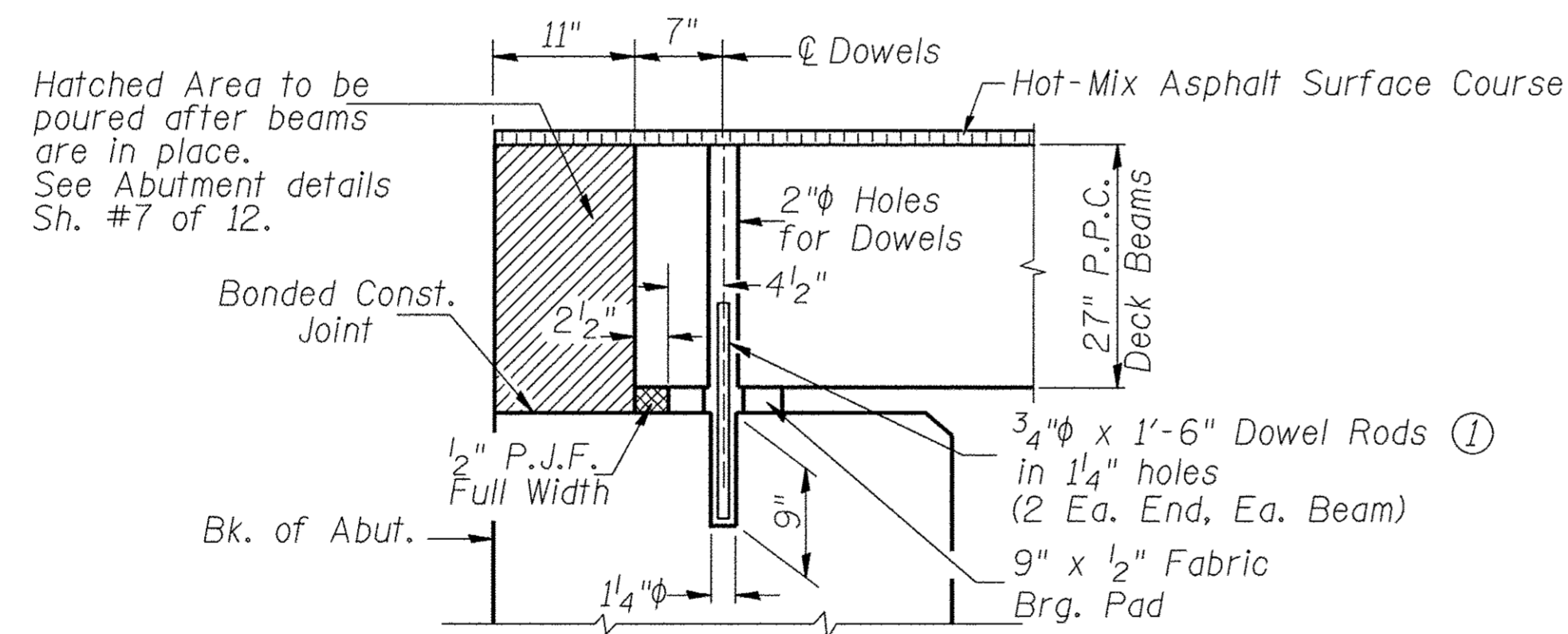
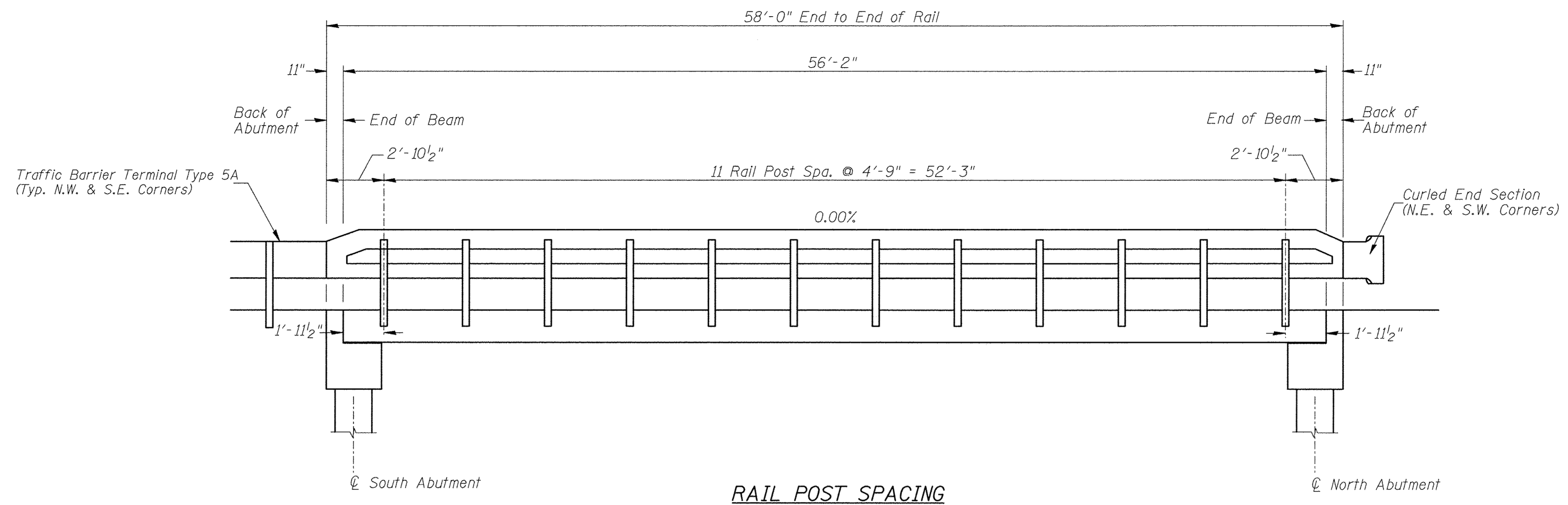
CURLED END SECTION

(2 Req'd) Terminal Markers-Direct Applied shall be placed on end of each Curled End Section. Cost of Curled End Sections and Terminal Markers-Direct Applied included with Steel Bridge Rail, Type SM (Special). (N.E. & S.W. Corners)

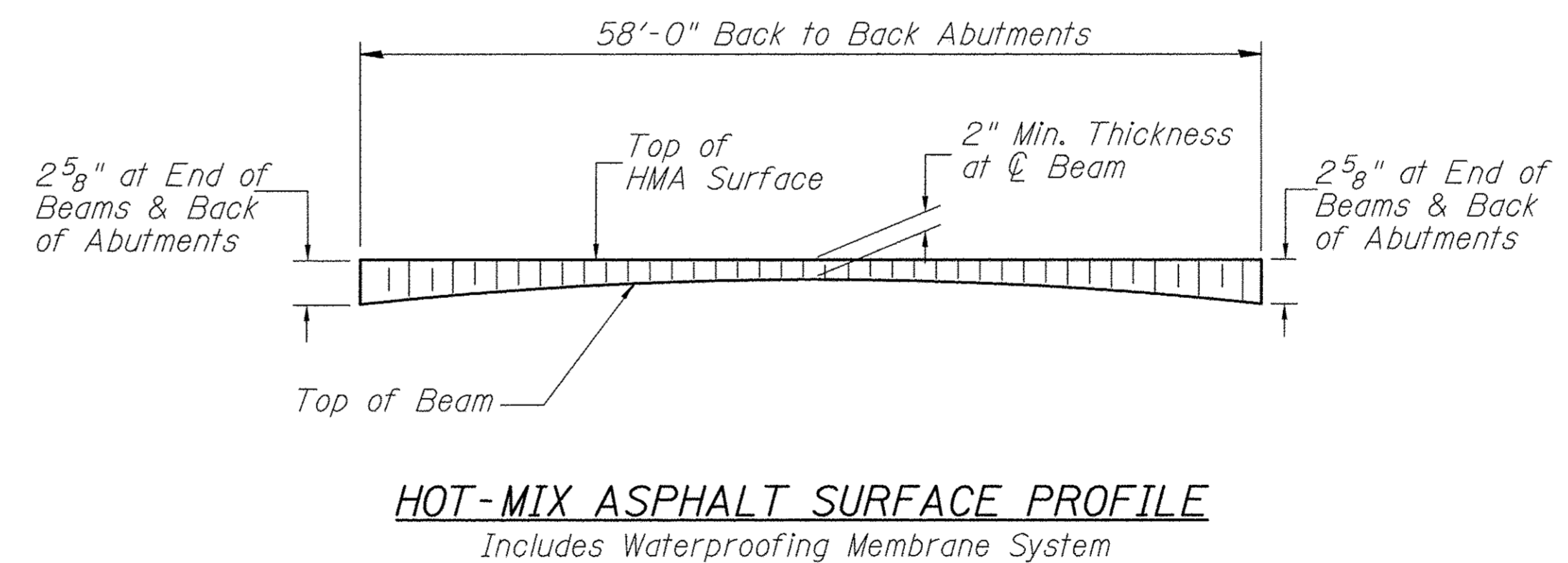
STEEL BRIDGE RAIL, TYPE SM (SPECIAL)
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

(Sheet 2 of 2)

SHEET NO. 5	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	11
12 SHEETS	S.N. 006-3018		CONTRACT NO. 87671		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)		

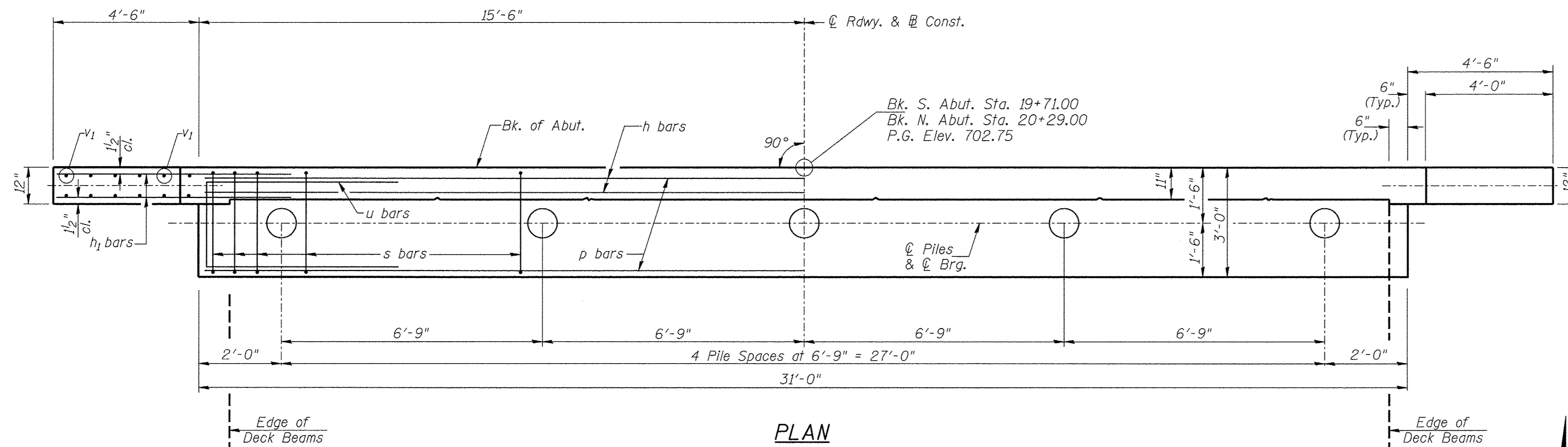


① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

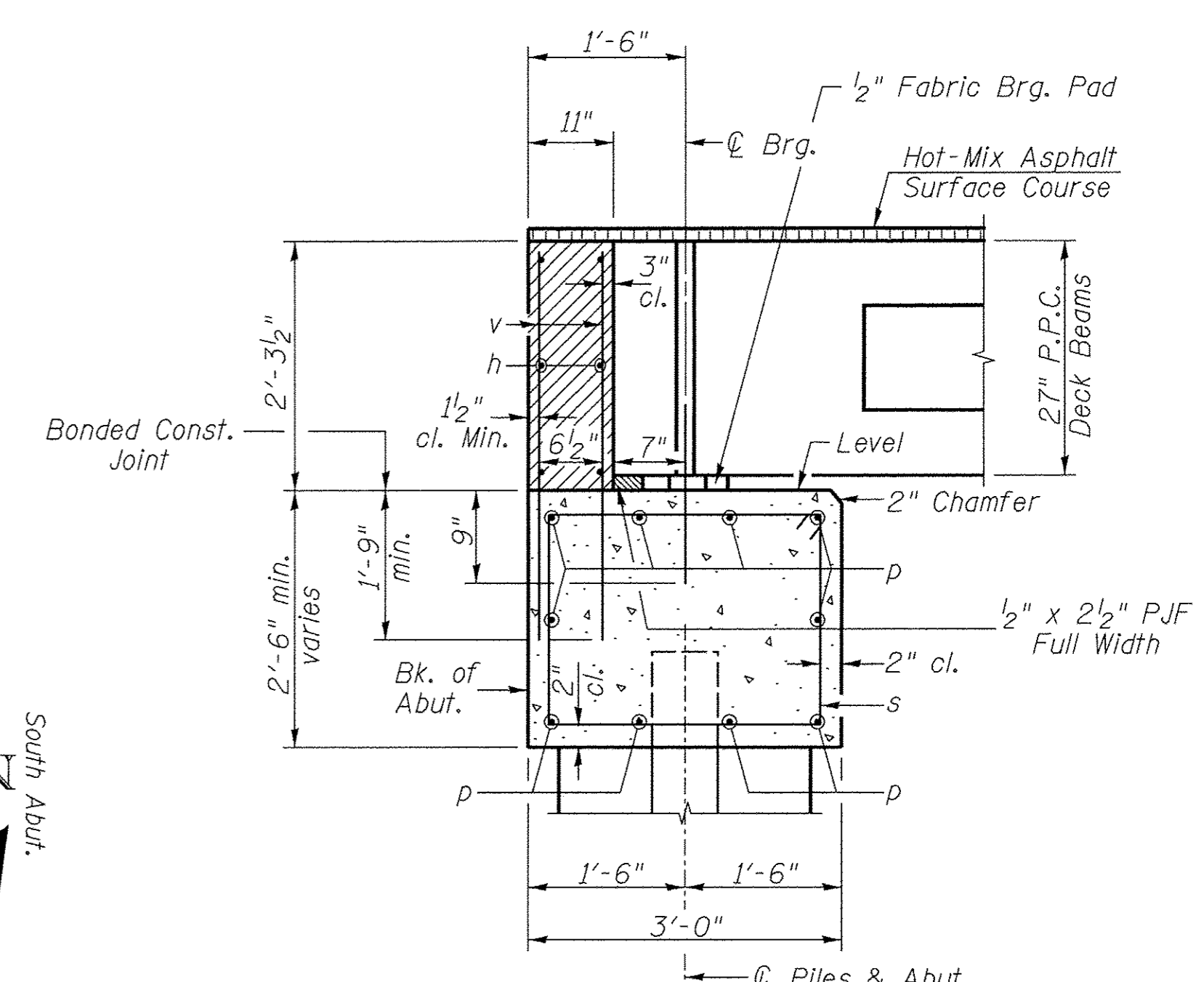


**RAIL POST SPACING AND
SUPERSTRUCTURE DETAILS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK**

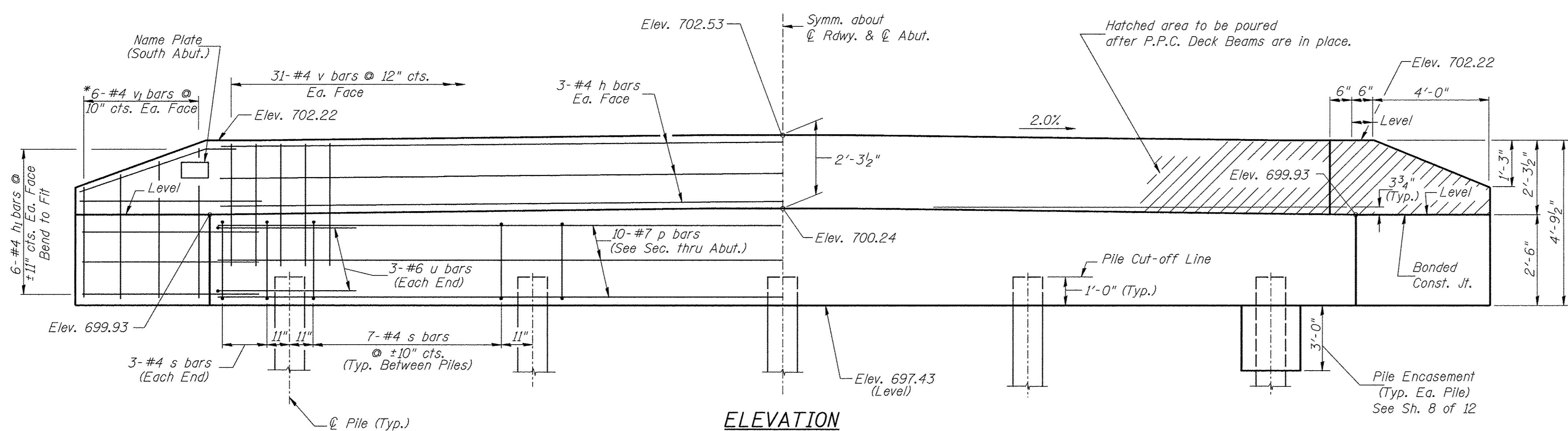
SHEET NO. 6 12 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	12
S.N. 006-3018			CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			



PLAN



SECTION THRU ABUT.



ELEVATION
(Front View of Abutment)

TWO ABUTMENTS
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	30'-9"	—
h ₁	48	#4	6'-6"	—
p	20	#7	30'-9"	—
s	68	#4	10'-5"	□
u	12	#6	11'-7"	□
v	124	#4	4'-0"	—
v ₁	24	#4	7'-9"	—
Concrete Structures		CU YD	25.7	
Reinforcement Bars		POUND	2,850	
Name Plates		EACH	1	
Furnishing Metal Shell Piles 12"x0.250"		FOOT	360	
Driving Piles		FOOT	360	
Test Pile Metal Shells		EACH	2	
Concrete Encasement		CU YD	2.6	

DESIGN STRESSES

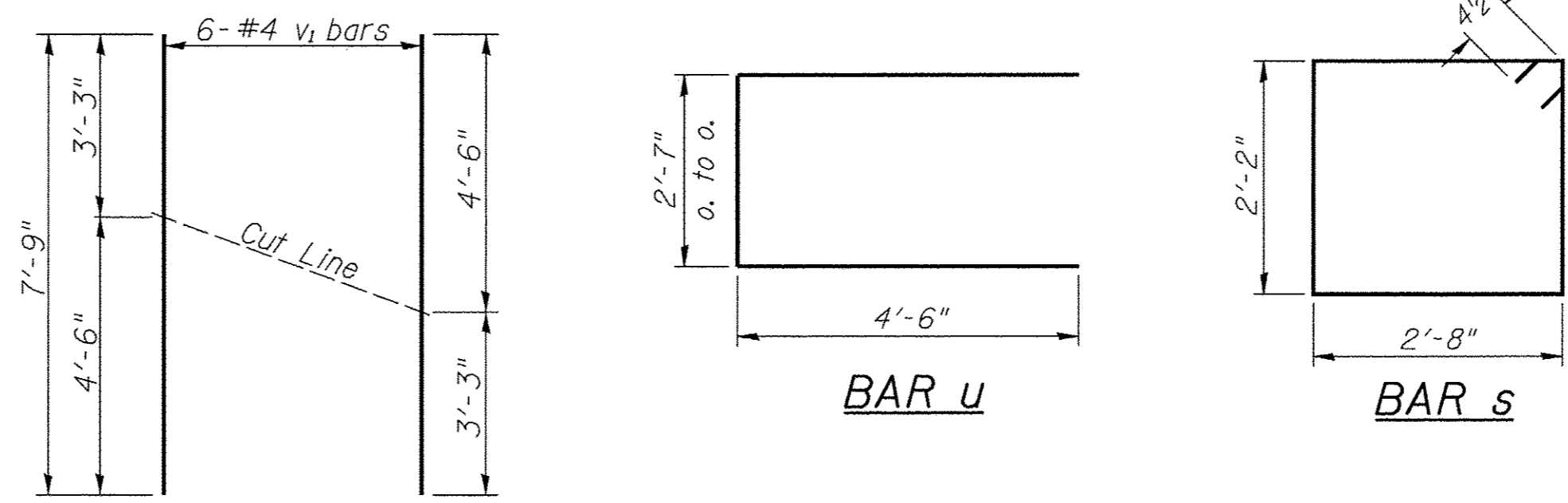
f'_c = 3,500 p.s.i.
f_y = 60,000 p.s.i.

PILE DATA

Type & Size: Metal Shell 12"x0.250" walls
Nominal Required Bearing: 249 kips
Factored Resistance Available: 137 kips
Est. Length: 45' South Abutment
45' North Abutment
No. Req'd.: 10 (Includes 1 Test Pile at Each Abut.)

NOTES

- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to ASTM A706 Grade 60.



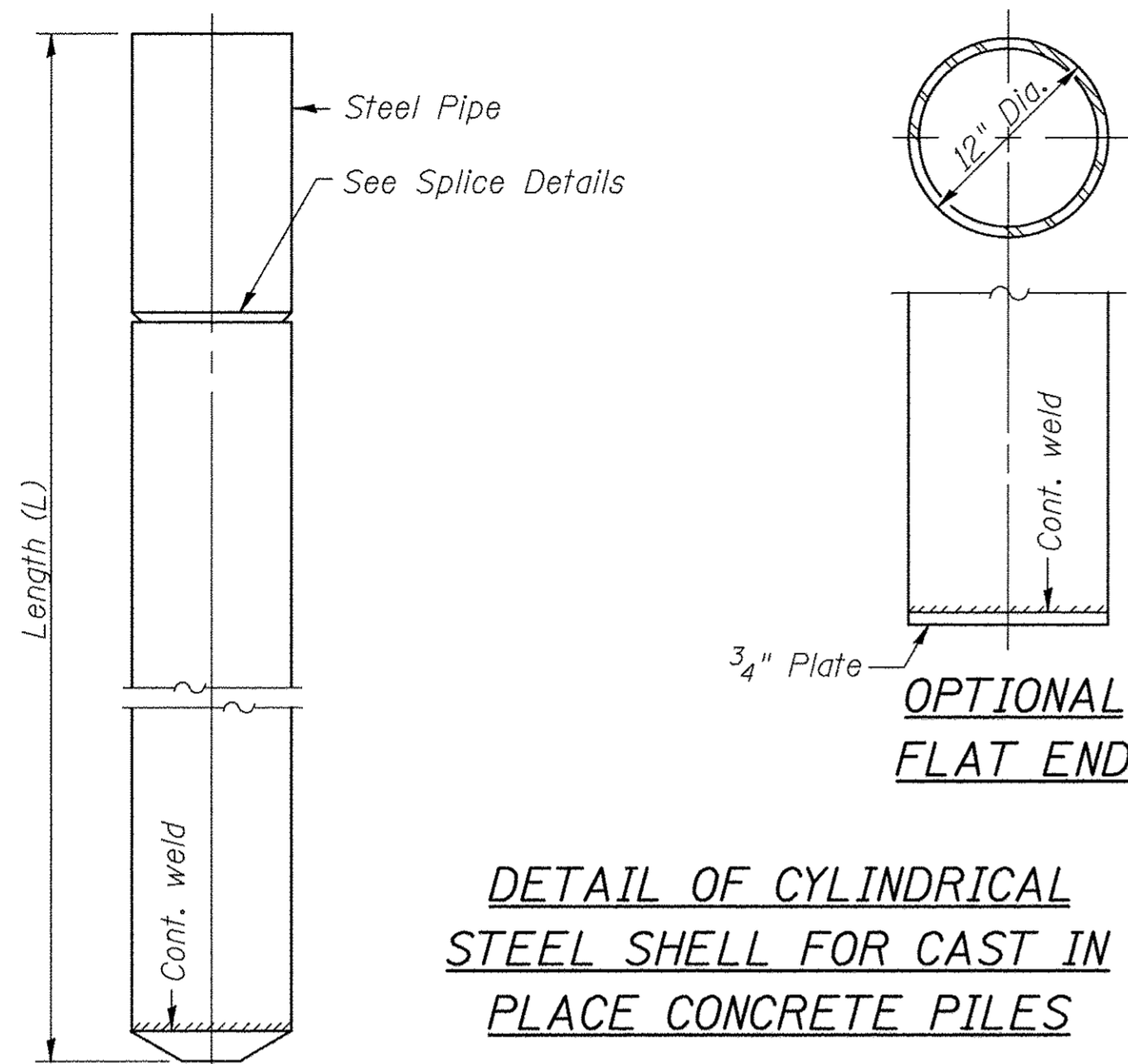
BAR CUTTING DIAGRAM

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

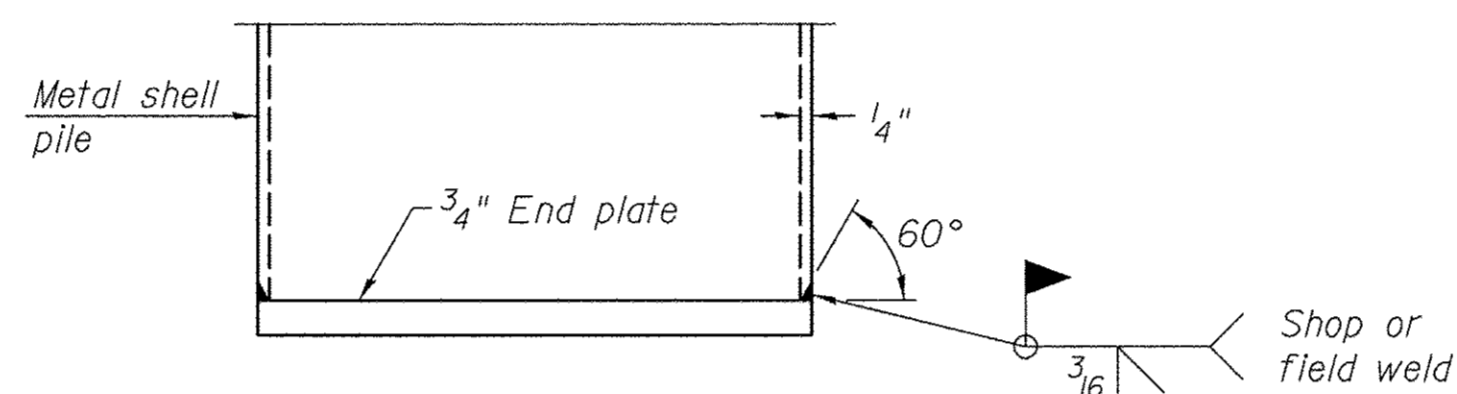
ABUTMENTS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 7 12 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	13
	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			

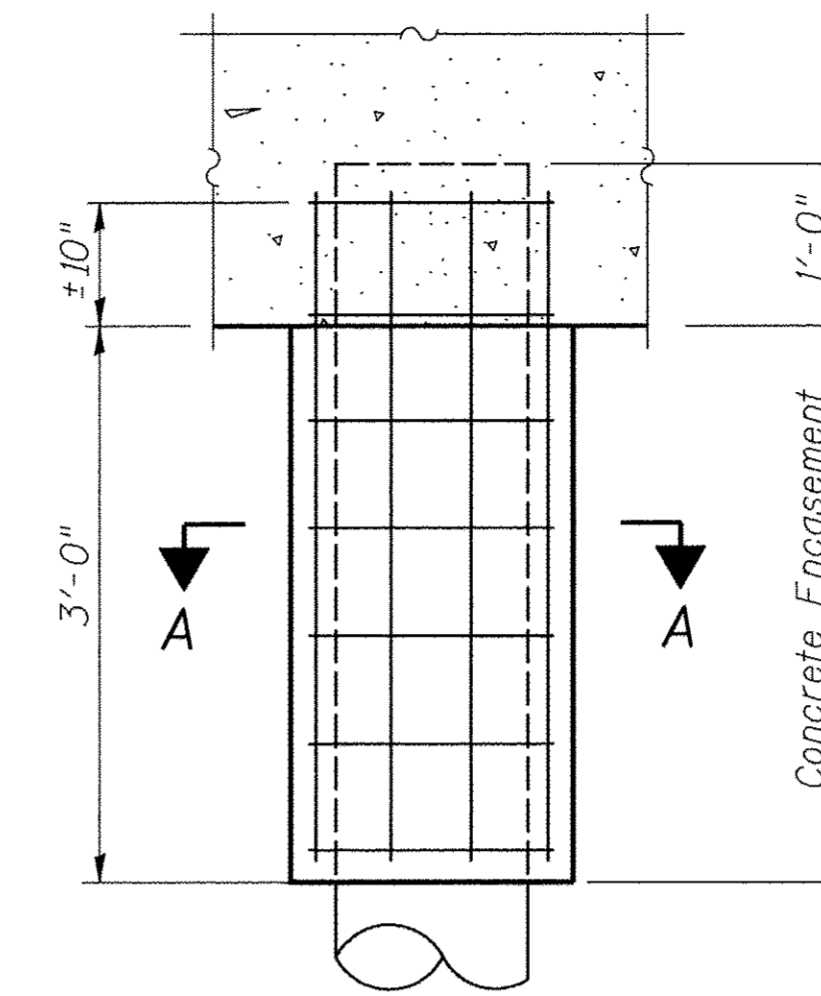
Notes: Driving and bearing ends of pipe shall be cut square. The thickness of the shell shall be 0.25 inches with a tolerance of 5%. The shell shall be according to Article 1006.05(a) of the Standard Specifications, and shall be ASTM A252 Grade 3.



DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

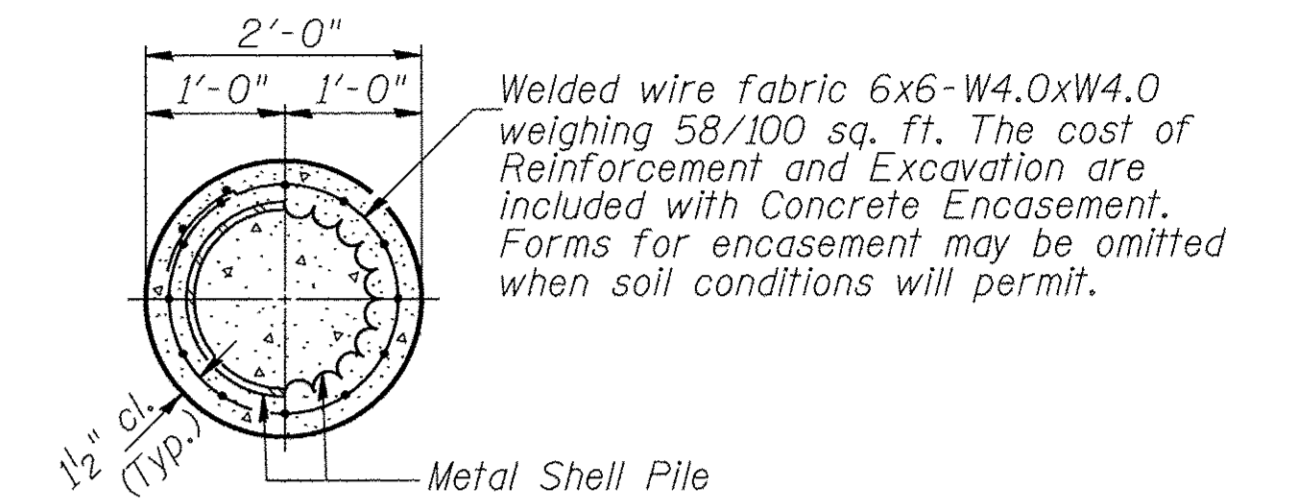


END PLATE ATTACHMENT

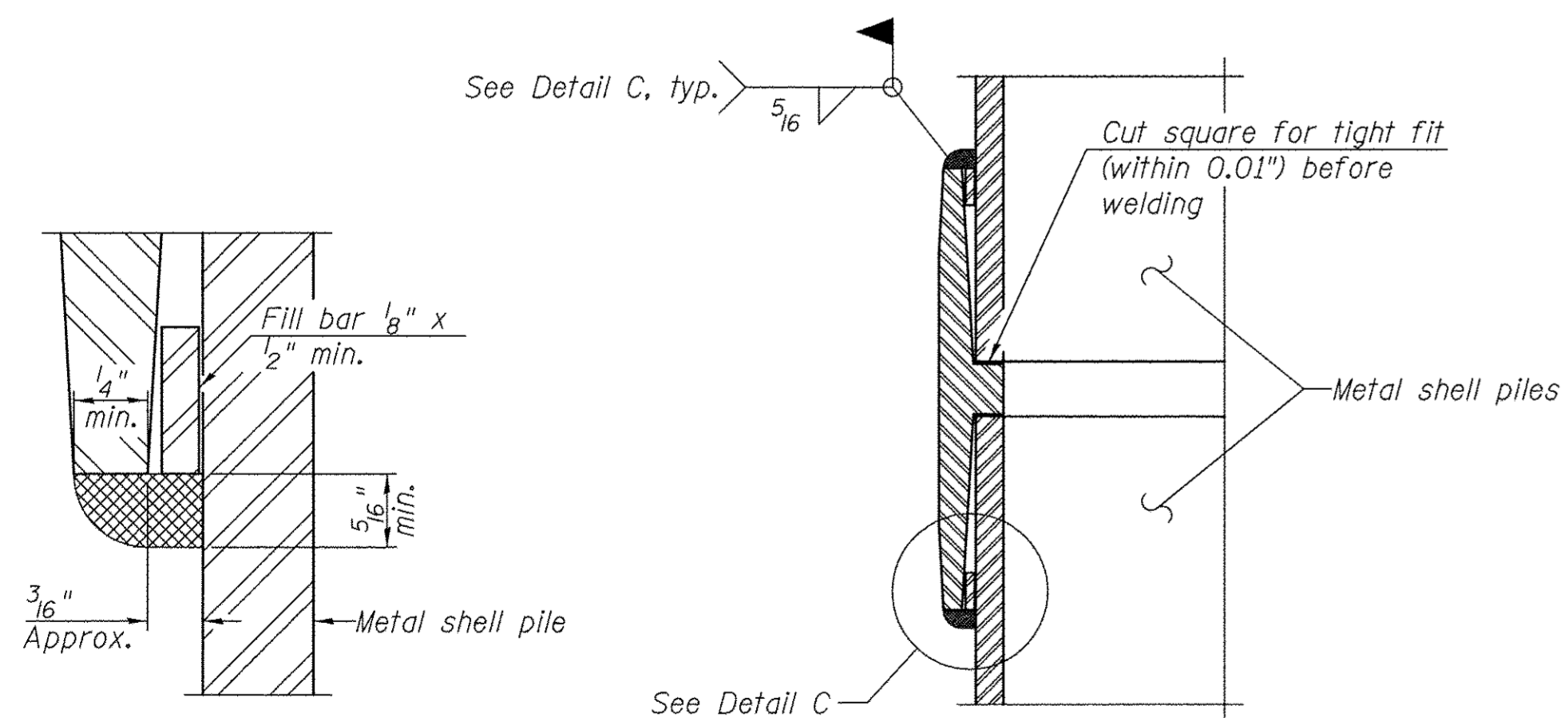


ELEVATION

DETAIL OF METAL SHELL PILE ENCASEMENT AT ABUTMENTS



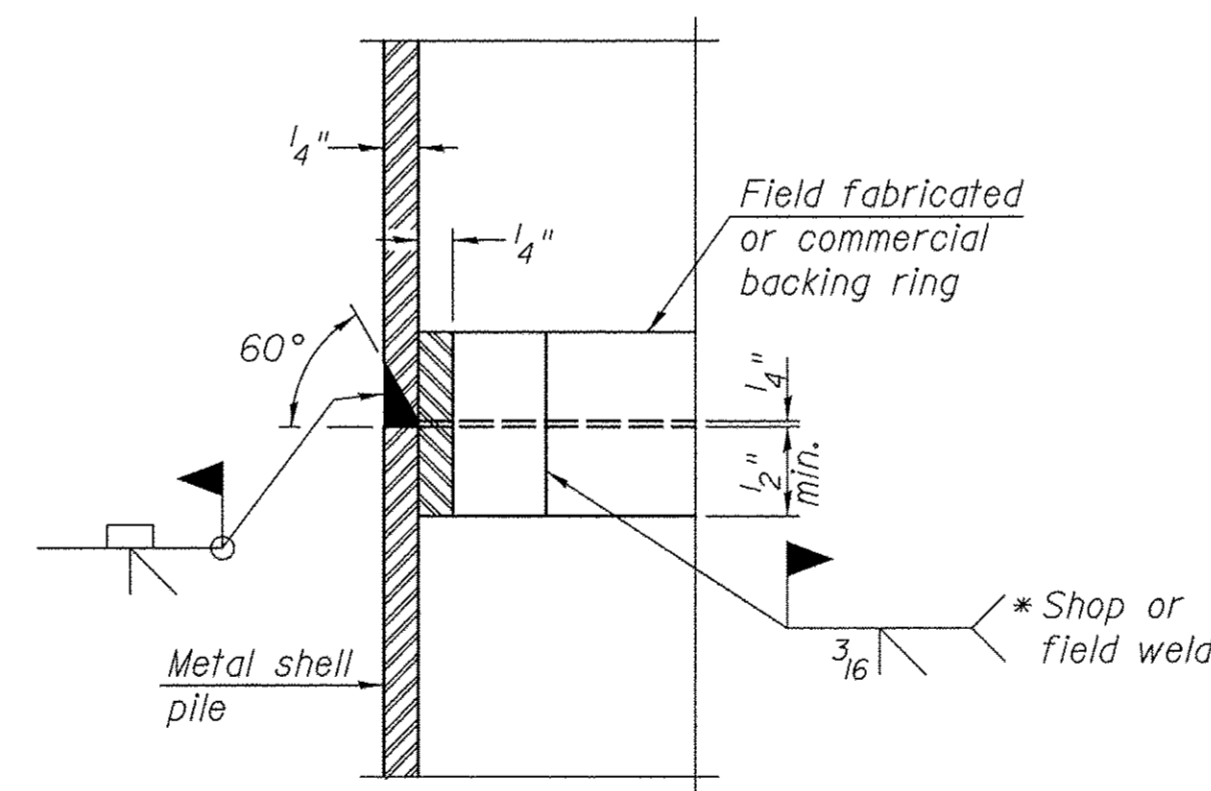
SECTION A-A



DETAIL C

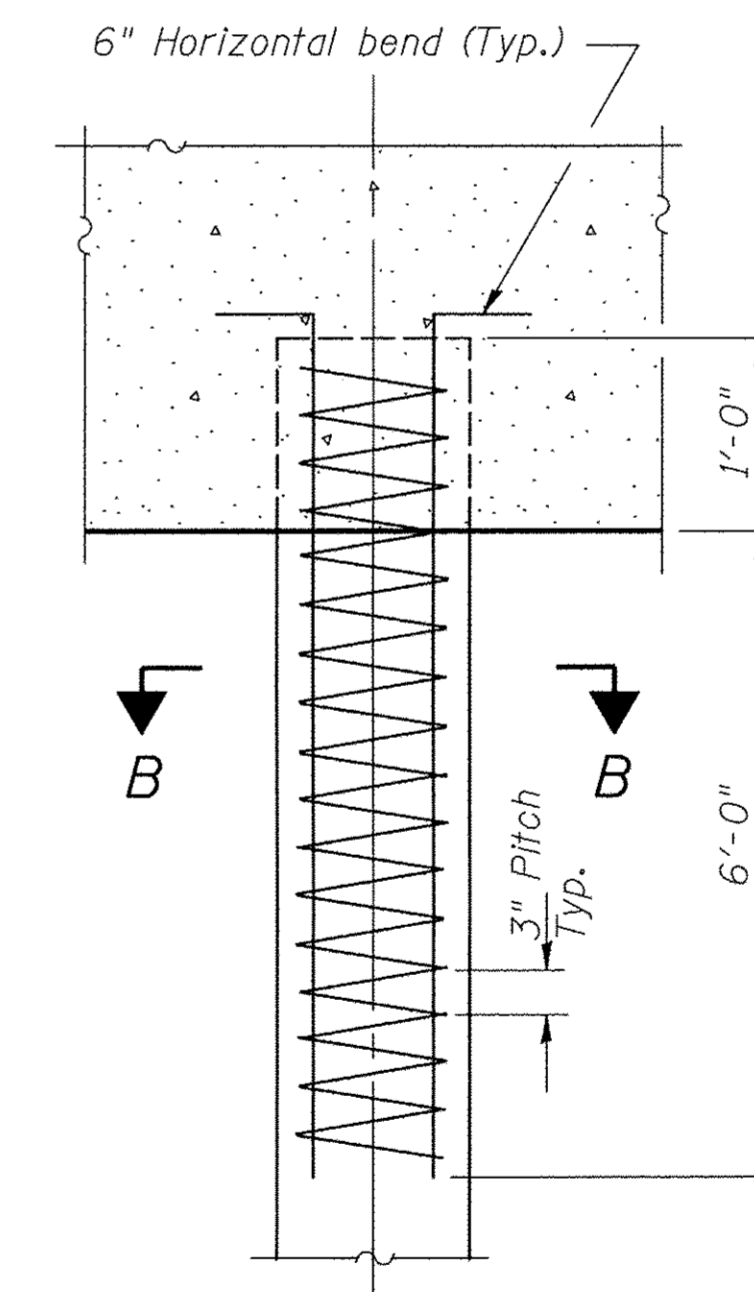
WELDED COMMERCIAL SPLICE

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



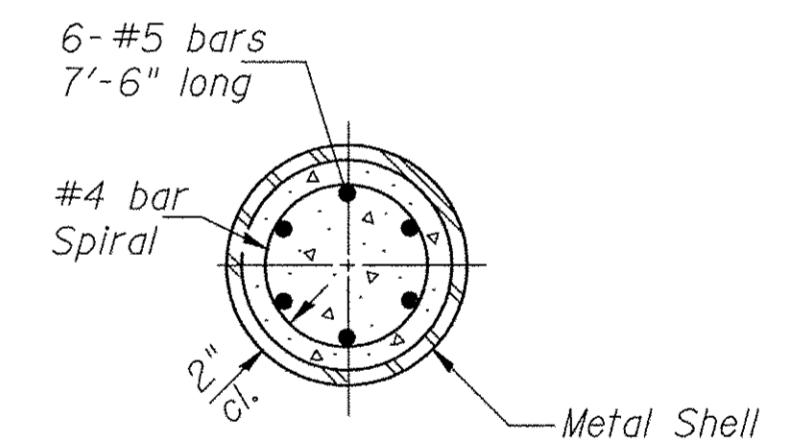
COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS

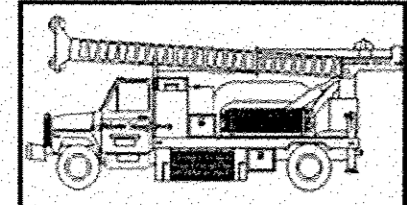


SECTION B-B

The cost of Reinforcement is included with Furnishing Metal Shell Piles 12"x0.250"

**METAL SHELL PILE DETAILS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK**

SHEET NO. 8 12 SHEETS	F.A.S. RTE. 1235	SECTION 08-00215-00-BR	COUNTY BUREAU	TOTAL SHEETS 23	SHEET NO. 14
	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

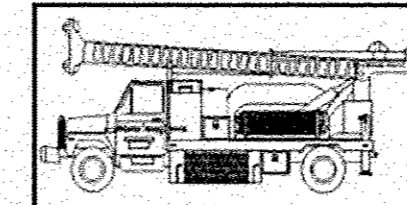
Client: Hutchison Engineering, Inc.
Project Name: CH 19 Section 08-000215-00-BR
Project Site: Bureau County, Illinois

Boring No. B-1
Surface Elev. 703.40
Auger Depth 76' Rotary Depth NA
Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Right of Station 19+65

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
703.40										Randy Safranski Diedrich D-120	
702.40			1								
701.40			2								
700.40	Dense Clay Mixed With Concrete Fragments (Fill)		3	1	SS	---	---	---	---		
699.40			4								
698.40	<i>Had To Move 3 Times To Penetrate Concrete Rubble</i>		5	2	SS	---	---	---	---		
697.40			6								
696.40			7								
695.40			8	3	SS	---	---	---	---		
694.40			9								
693.40	Medium Brown Fine Sand		10	4	SS	---	12	---	---		
692.40			11								
691.40			12								
690.40	Stiff Brownish Gray Clay		13	5	SS	1.5	9	B	15		
689.40			14								
688.40			15								
687.40			16	6	SS	1.4	9	B	15		
686.40			17								
685.40	Stiff Brownish Gray Clay Till		18	7	SS	1.5	10	B	15		
684.40			19								
683.40			20	8	SS	1.9	13	B	13		

Groundwater Data: Static water level after auger removal - Elevation 694.0.
Comments:



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: CH 19 Section 08-000215-00-BR
Project Site: Bureau County, Illinois

Boring No. B-1
Surface Elev. 703.40
Auger Depth 76' Rotary Depth NA
Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Right of Station 19+65

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
682.40										Randy Safranski Diedrich D-120	
681.40	Very Stiff Brownish Gray Clay Till		22								
680.40			23	9	SS	2.0	12	B	14		
679.40			24								
678.40			25								
677.40			26	10	SS	1.8	10	B	15		
676.40			27								
675.40	Stiff Brownish Gray Clay Till		28	11	SS	1.6	8	B	16		
674.40			29								
673.40			30								
672.40			31	12	SS	1.7	9	B	15		
671.40			32								
670.40			33	13	SS	1.9	10	B	15		
669.40			34								
668.40			35								
667.40			36	14	SS	2.3	14	B	14		
666.40	Very Stiff Gray Clay Till		37								
665.40			38								
664.40			39								
663.40			40	15	SS	2.4	13	B	14		
662.40			41								

Groundwater Data: Static water level after auger removal - Elevation 694.0.
Comments:

SOIL BORING LOGS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	15
12 SHEETS	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1235(105)		

	Midwest Testing Services, Inc.	BORING LOG	Phone: 815-223-6696
	3705 Progress Blvd. Peru, IL 61354	Sheet <u>3</u> of <u>4</u>	Fax: 815-223-6659 e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
 Project Name: CH 19 Section 08-000215-00-BR
 Project Site: Bureau County, Illinois

Boring No. B-1
 Surface Elev. 703.40
 Auger Depth 76' Rotary Depth NA
 Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Right of Station 19+65

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
661.40										Randy Safranski Diedrich D-120	
660.40	Very Stiff Gray Clay Till		43								
659.40			44								
658.40	Very Stiff Gray Sandy Loam Till		45	16	SS	3.7	28	S	10		
657.40			46								
656.40			47								
655.40			48								
654.40	Dense Gray Sandy Loam Till		49								
653.40			50	17	SS	4.6	45	S	8		
652.40			51								
651.40			52								
650.40	Very Stiff Gray Clay Till		53								
649.40			54								
648.40			55	18	SS	3.2	22	B	13		
647.40			56								
646.40			57								
645.40			58								
644.40			59								
643.40			60								
642.40			61	19	SS	3.0	20	B	13		
641.40			62								

Groundwater Data: Static water level after auger removal - Elevation 694.0.
 Comments:

	Midwest Testing Services, Inc.	BORING LOG	Phone: 815-223-6696
	3705 Progress Blvd. Peru, IL 61354	Sheet <u>4</u> of <u>4</u>	Fax: 815-223-6659 e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
 Project Name: CH 19 Section 08-000215-00-BR
 Project Site: Bureau County, Illinois

Boring No. B-1
 Surface Elev. 703.40
 Auger Depth 76' Rotary Depth NA
 Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Right of Station 19+65

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
640.40										Randy Safranski Diedrich D-120	
639.40			64								
638.40			65	20	SS	3.9	22	S	11		
637.40	Very Stiff To Hard Gray Clay Till		66								
636.40			67								
635.40			68								
634.40			69								
633.40			70								
632.40			71	21	SS	4.1	12	S	11		
631.40			72								
630.40			73								
629.40			74								
628.40			75								
627.40	Boring Terminated		76	22	SS	4.4	23	S	10		
626.40			77								
625.40			78								
624.40			79								
623.40			80								
622.40			81								
621.40			82								
620.40			83								

Groundwater Data: Static water level after auger removal - Elevation 694.0.
 Comments:

SOIL BORING LOGS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	16
12 SHEETS	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			

	Midwest Testing Services, Inc.	BORING LOG	Phone: 815-223-6696
	3705 Progress Blvd. Peru, IL 61354	Sheet <u>1</u> of <u>4</u>	Fax: 815-223-6659 e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
 Project Name: CH 19 Section 08-000215-00-BR
 Project Site: Bureau County, Illinois

Boring No. B-2
 Surface Elev. 703.50
 Auger Depth 76' Rotary Depth NA
 Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Lt. Of Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu. (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
703.50										Randy Safranski Diedrich D-120	
702.50	Very Stiff Black And Brown Clay (Fill)		1	SS	2.2	14	S	16			
701.50			2								
700.50			3	SS	2.4	12	S	18			
699.50	Stiff Black Clay		4	SS	1.2	6	S	27			
698.50			5								
697.50			6	SS	1.6	7	B	26			
696.50	Stiff Brownish Gray Clay		7	SS	1.6	8	B	13			
695.50			8								
694.50			9	SS	1.2	9	B	15			
693.50	Stiff Brownish Gray Clay Till		10	SS	1.4	11	B	13			
692.50			11								
691.50			12	SS	1.7	12	B	13			
690.50			13								
689.50			14								
688.50			15	SS	2.2	13	B	14			
687.50			16								
686.50			17								
685.50			18	SS	2.3	15	B	13			
684.50			19								
683.50			20								
			21	SS	1.7	12	B	13			

Groundwater Data: Static water level after auger removal - Elevation 693.0.
 Comments:

	Midwest Testing Services, Inc.	BORING LOG	Phone: 815-223-6696
	3705 Progress Blvd. Peru, IL 61354	Sheet <u>2</u> of <u>4</u>	Fax: 815-223-6659 e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
 Project Name: CH 19 Section 08-000215-00-BR
 Project Site: Bureau County, Illinois

Boring No. B-2
 Surface Elev. 703.50
 Auger Depth 76' Rotary Depth NA
 Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Lt. Of Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu. (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
682.50										Randy Safranski Diedrich D-120	
681.50	Stiff Brownish Gray Clay Till		22								
680.50			23	9	SS	1.9	13	B	12		
679.50			24								
678.50			25								
677.50			26	10	SS	1.7	11	B	13		
676.50			27								
675.50	Very Stiff Gray Clay Till		28	11	SS	1.4	9	B	14		
674.50			29								
673.50			30	12	SS	1.6	11	B	12		
672.50			31								
671.50			32								
670.50			33	13	SS	2.2	13	B	14		
669.50			34								
668.50			35								
667.50			36	14	SS	2.3	15	B	13		
666.50			37								
665.50			38								
664.50			39								
663.50			40								
662.50			41	15	SS	2.2	14	B	14		

Groundwater Data: Static water level after auger removal - Elevation 693.0.
 Comments:

SOIL BORING LOGS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 11	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	17
12 SHEETS	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1235(105)		

Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG
Sheet 3 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: CH 19 Section 08-000215-00-BR
Project Site: Bureau County, Illinois

Boring No. B-2
Surface Elev. 703.50
Auger Depth 76' Rotary Depth NA
Start Date 11/27/15 Finish Date 11/27/15

Location: 8' Lt Of Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS		
				Sample No.	Sample Type	Qu. (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)	
661.50													
660.50			43										
659.50			44										
658.50			45										
657.50	Hard Gray Silty Loam Till		46	16	SS	1.2	34	S	9				
656.50			47										
655.50			48										
654.50			49										
653.50			50										
652.50			51	17	SS	4.5	37	S	7				
651.50			52										
650.50	Very Dense Gray Sandy Loam Till		53										
649.50			54										
648.50			55	18	SS	4.3	51	S	5				
647.50			56										
646.50			57										
645.50	Very Stiff Gray Clay Till		58										
644.50			59										
643.50			60										
642.50			61	19	SS	3.6	25	B	12				
641.50			62										

Groundwater Data: Static water level after auger removal - Elevation 693.0.
Comments:

Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG
Sheet 4 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: CH 19 Section 08-000215-00-BR
Project Site: Bureau County, Illinois

Boring No. B-2
Surface Elev. 703.50
Auger Depth 76' Rotary Depth NA
Start Date 11/27/15 Finish Date 11/27/15

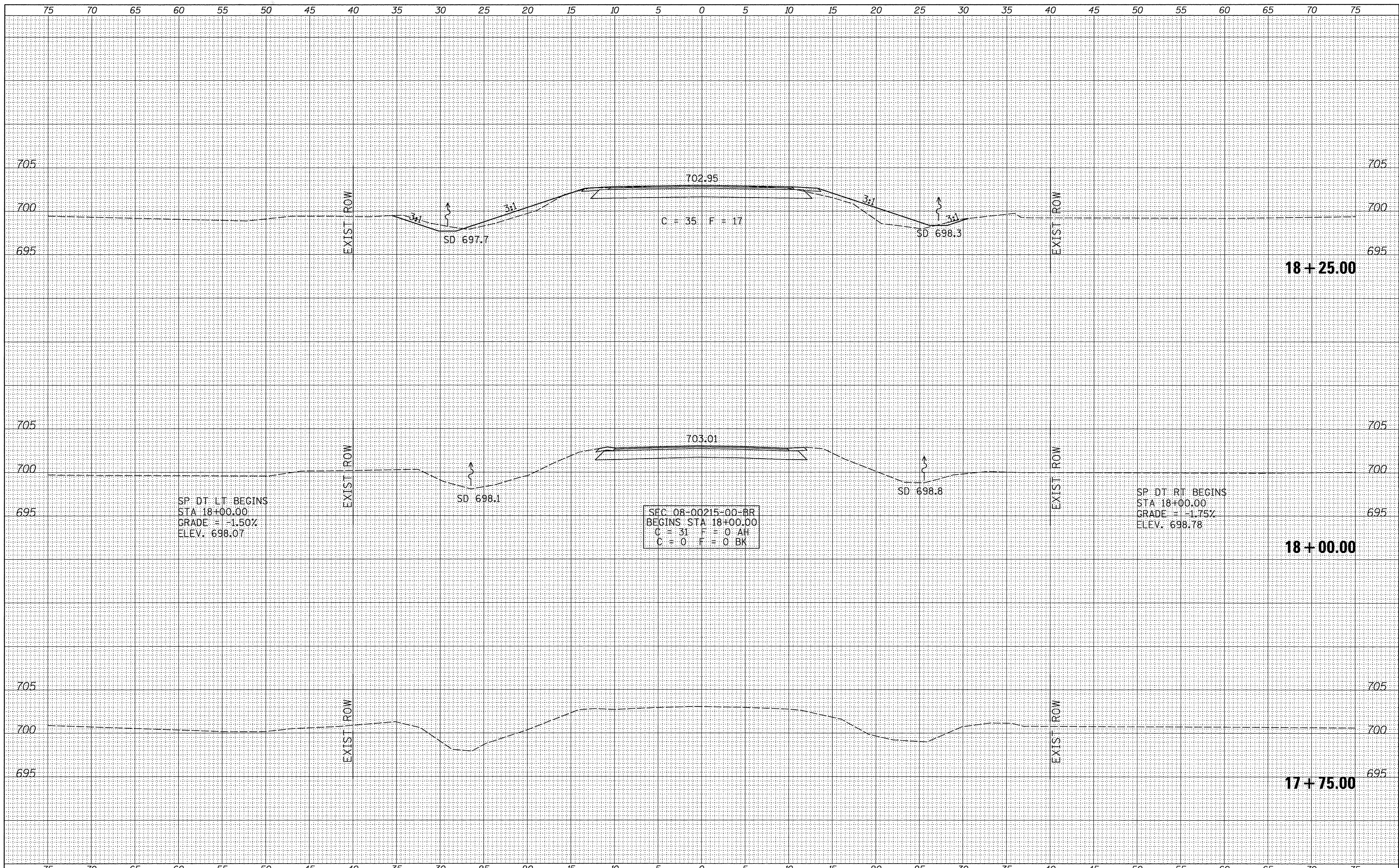
Location: 8' Lt. Of Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS		
				Sample No.	Sample Type	Qu. (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)	
640.50													
639.50			64										
638.50			65										
637.50			66	20	SS	2.5	21	B	12				
636.50			67										
635.50	Very Stiff Gray Clay Till		68										
634.50			69										
633.50			70										
632.50			71	21	SS	3.2	18	B	13				
631.50			72										
630.50			73										
629.50			74										
628.50			75										
627.50			76	22	SS	3.7	25	S	10				
626.50			77										
625.50			78										
624.50			79										
623.50			80										
622.50			81										
621.50			82										
620.50			83										

Groundwater Data: Static water level after auger removal - Elevation 693.0.
Comments:

SOIL BORING LOGS
BUREAU COUNTY
SECTION 08-00215-00-BR
COUNTY HIGHWAY 19 OVER
BRANCH OF EAST BUREAU CREEK

SHEET NO. 12	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1235	08-00215-00-BR	BUREAU	23	18
12 SHEETS	S.N. 006-3018		CONTRACT NO. 87671		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1235(105)			



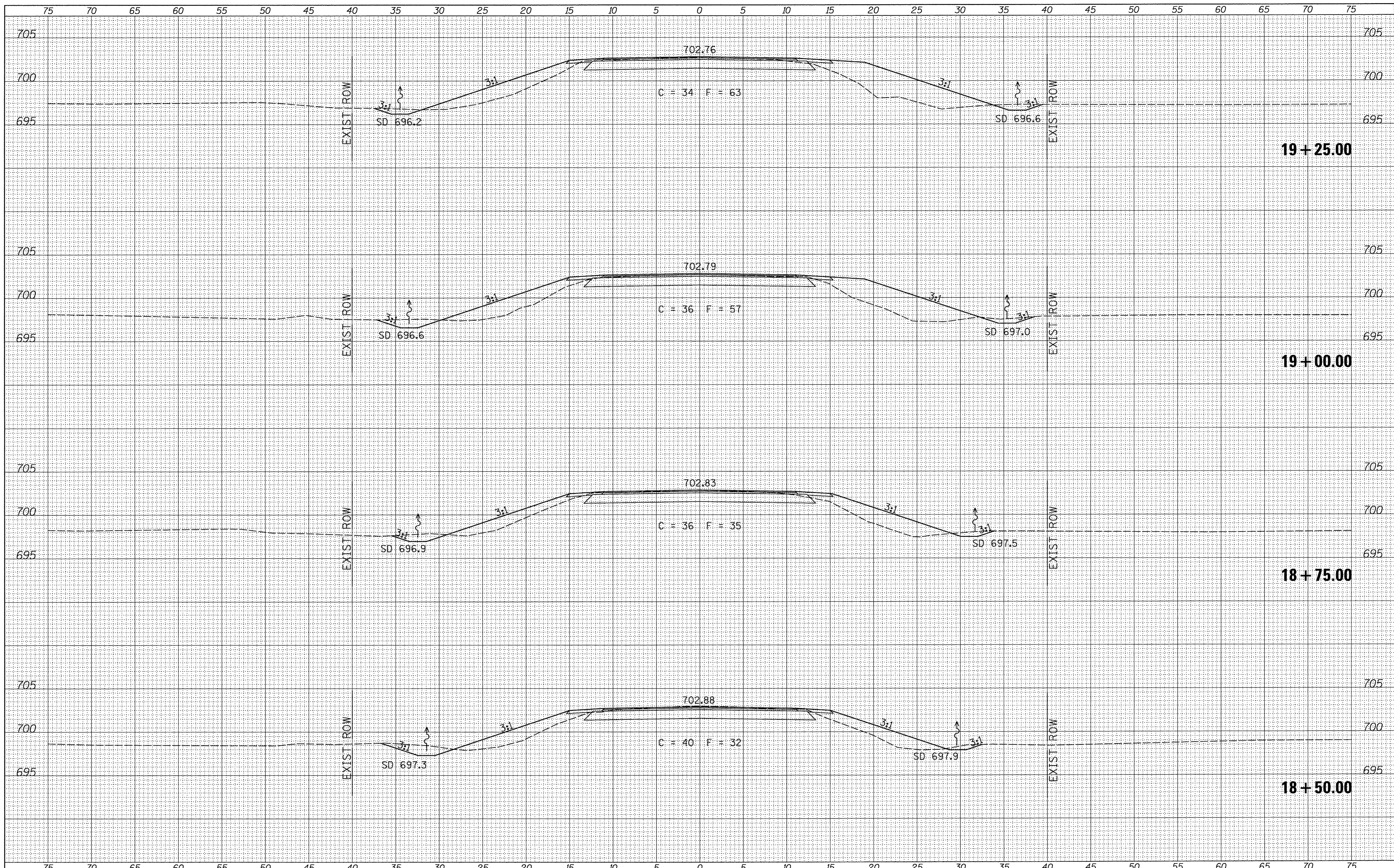
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NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

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

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MODELNAME	PLOT SCALE = 5,0000' / 1" =	DRAWN -	REVISED -		SCALE: 1"=5'	SHEET 1	OF 5	SHEETS	STA. 17+75.00	TO STA. 18+25.00	CONTRACT NO. 87671		
	PLOT DATE = 1/13/2017	CHECKED -	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS								
		DATE -	REVISED -		FED. AID PROJECT BRS-1235(105)								

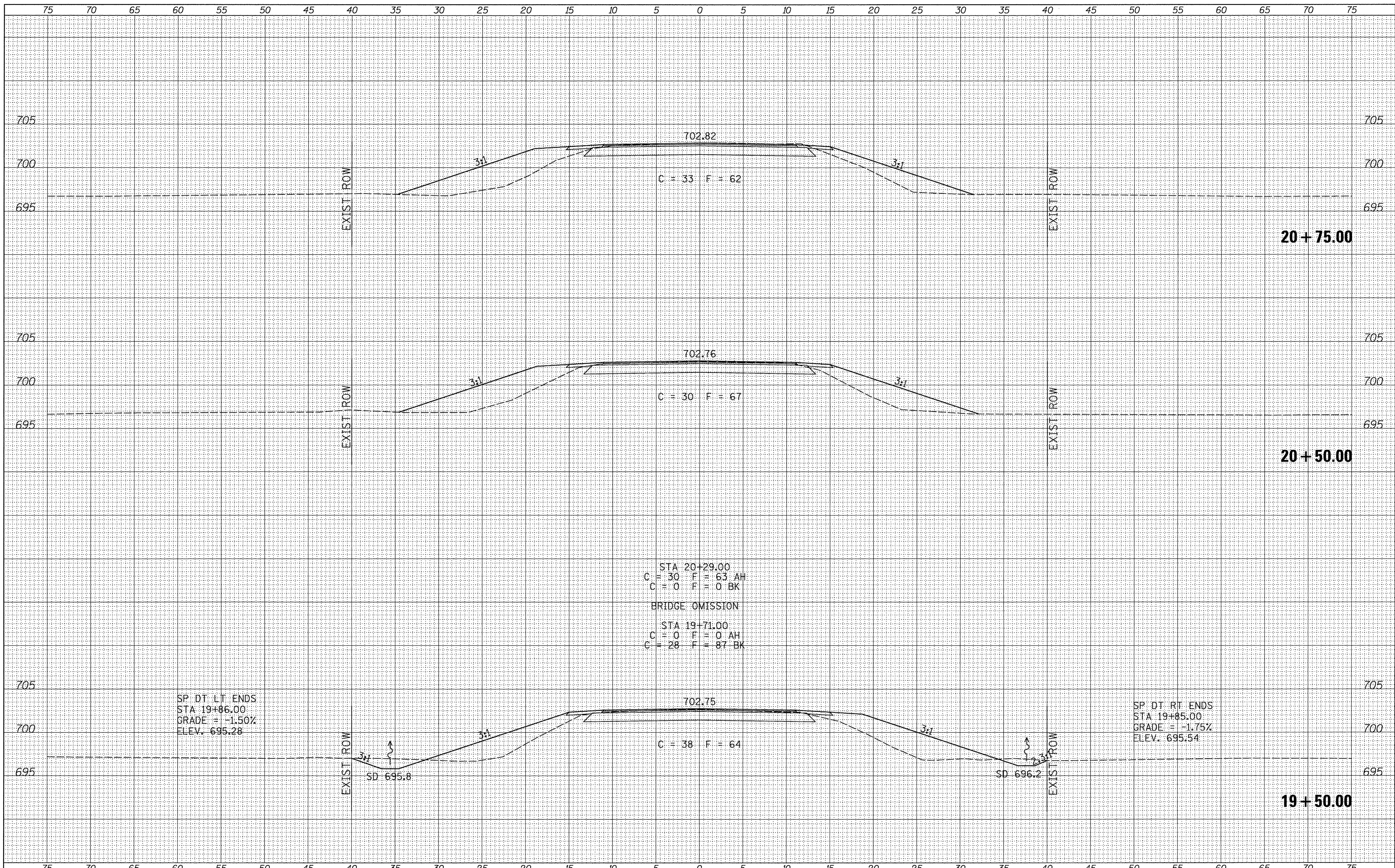
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SURVEYED		
NOTE BOOK		
NO.		
TEMPLATE		
AREAS CHECKED		

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



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

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



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USER NAME = JHutchison
 PLOT SCALE = 5.0000' / 1"
 PLOT DATE = 1/13/2017

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**BUREAU COUNTY
 COUNTY HIGHWAY 19 OVER
 BRANCH OF EAST BUREAU CREEK**

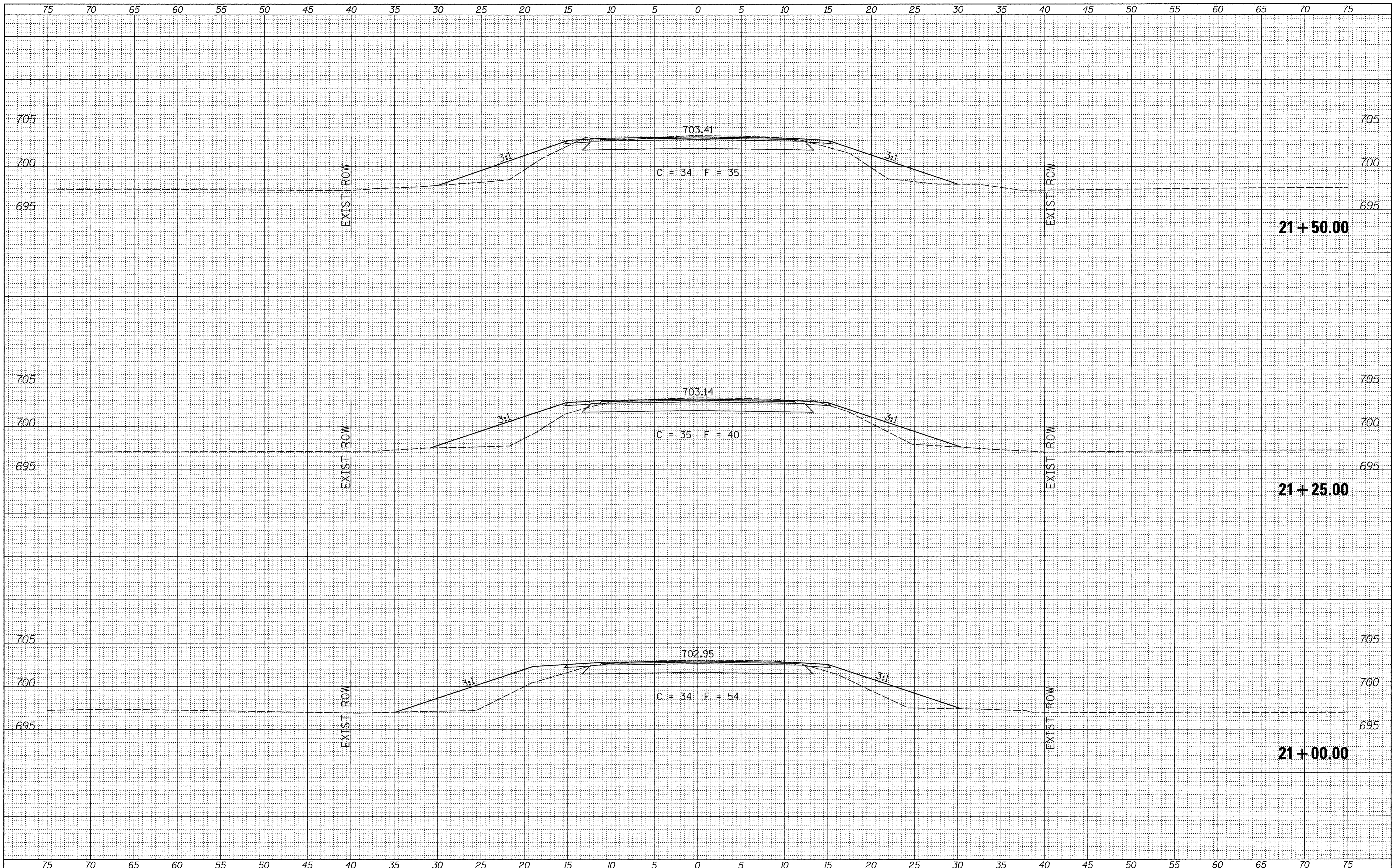
CROSS SECTIONS

SCALE: 1"=5' SHEET 3 OF 5 SHEETS STA. 19+50.00 TO STA. 20+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1235	08-00215-00-BR	BUREAU	23	21
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87671	
FED. AID PROJECT BRS-1235(05)				

FINAL SURVEY	BY	DATE
SURVEY		
NOTE BOOK		
NO.		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEY		
NOTE BOOK		
NO.		
AREAS CHECKED		



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 USER NAME = JHutchison
 PLOT SCALE = 5.0000' / in.
 PLOT DATE = 1/13/2017

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

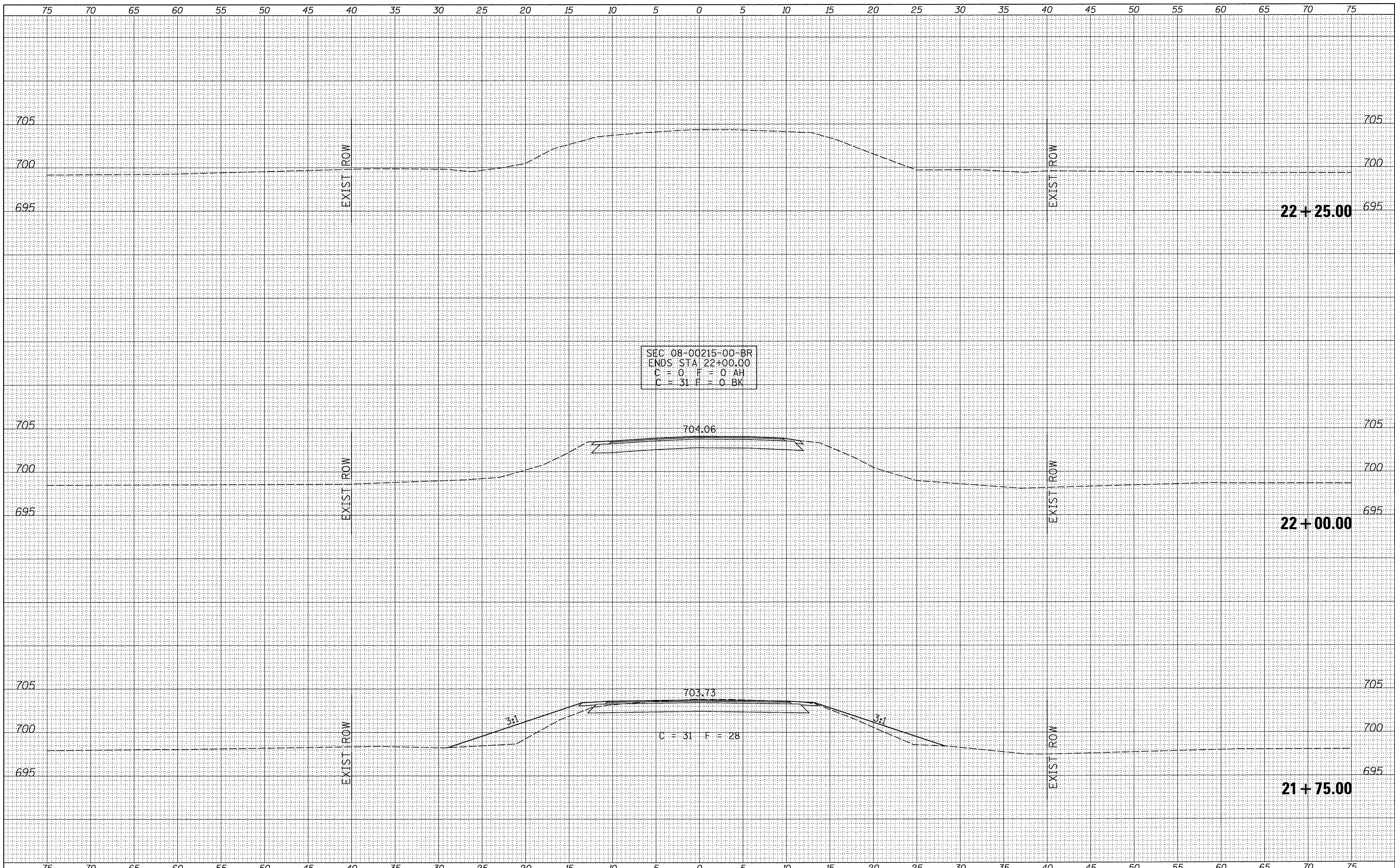
**BUREAU COUNTY
 COUNTY HIGHWAY 19 OVER
 BRANCH OF EAST BUREAU CREEK**

CROSS SECTIONS
 SCALE: 1"=5' SHEET 4 OF 5 SHEETS STA. 21+00.00 TO STA. 21+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1235	08-00215-00-BR	BUREAU	23	22
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87671	
FED. AID PROJECT BRS-1235(105)				

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

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



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USER NAME = JHutchison
 PLOT SCALE = 5.0000' / 1"
 PLOT DATE = 1/13/2017

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**BUREAU COUNTY
 COUNTY HIGHWAY 19 OVER
 BRANCH OF EAST BUREAU CREEK**

CROSS SECTIONS
 SCALE: 1"=5'
 SHEET 5 OF 5 SHEETS
 STA. 21+75.00 TO STA. 22+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1235	08-00215-00-BR	BUREAU	23	23
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87671	
FED. AID PROJECT BRS-1235(105)				