

07-29-2016 LETTING ITEM 073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM-BRIDGE
BUREAU COUNTY
MILO ROAD DISTRICT SECTION 11-16116-00-BR
TOWNSHIP ROAD 154 OVER FOX CREEK
PROJECT NO. BROS-0011(153)
JOB NUMBER C-93-042-16

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 154	11-16116-00-BR	BUREAU	22	1
FED. ROAD DIST. NO. 7		ILLINOIS	CONTRACT NO. 87641	

INDEX OF SHEETS

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

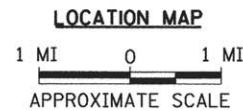
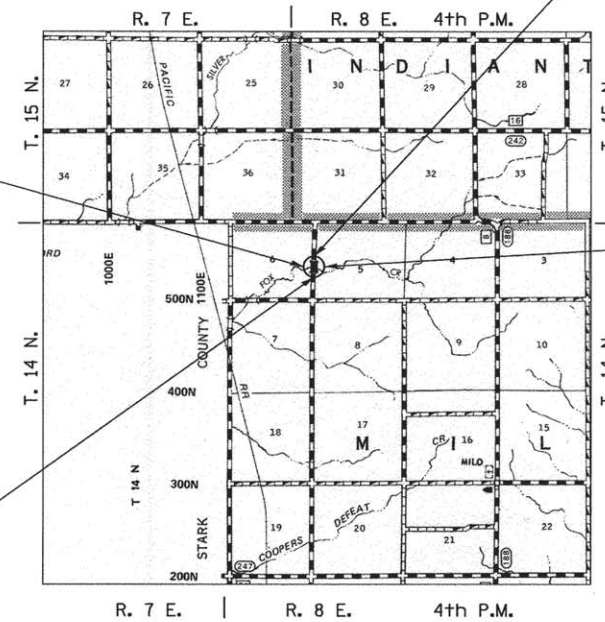
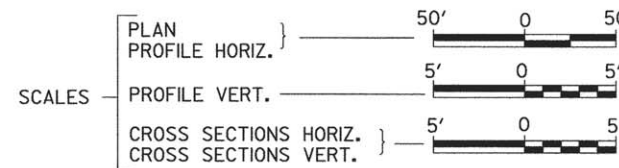
REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-07
- 515001-03
- 701901-05
- 725001
- BLR 21-9

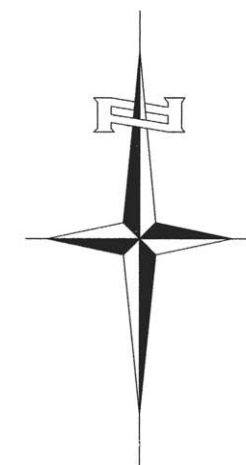
EXISTING STRUCTURE NO. 006-4225
 THREE SPAN PRECAST NELSON BEAM BRIDGE ON TIMBER PILE BENT PIERS WITH CONCRETE CAPS AND TIMBER PILE BENT ABUTMENTS WITH CONCRETE CAPS AND TIMBER LAGGING, ±48'-0" BK TO BK, AND ±22'-0" O TO O DECK, NO SKEW. (TO BE REMOVED)

SECTION 11-16116-00-BR ENDS
 STATION 21+50.00

SECTION 11-16116-00-BR BEGINS
 STATION 18+50.00



PROPOSED STRUCTURE SN 006-4236
 SINGLE SPAN 21" PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE SPILL-THRU PILE BENT ABUTMENTS, 59'-0" BK TO BK, AND 24'-0" O TO O DECK, NO SKEW



NET LENGTH OF PROJECT = 300.00 FEET = 0.057 MILES
 DESIGN CLASSIFICATION: LOCAL ROAD (NON-URBAN)
 DESIGN ADT = 50 (16)
 DESIGN SPEED = 30 MPH



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

APPROVED 5/17 2016

Walter J. ...
 MILO ROAD DISTRICT
 HIGHWAY COMMISSIONER

APPROVED May 17 2016

Julian C. ...
 BUREAU COUNTY ENGINEER

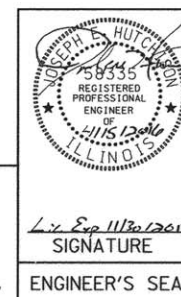
PASSED 5/19 2016

Thomas J. ...
 DISTRICT THREE ENGINEER OF
 LOCAL ROADS & STREETS

Released For Bid Based on Limited Review 5/19 2016

Paul ...
 REGION-TWO ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



Hutchison Engineering, Inc.
 JACKSONVILLE-SHOREWOOD-PEORIA

2015 JOB#3517

UTILITY COMPANIES

AMEREN ILLINOIS
 LASALLE, ILLINOIS

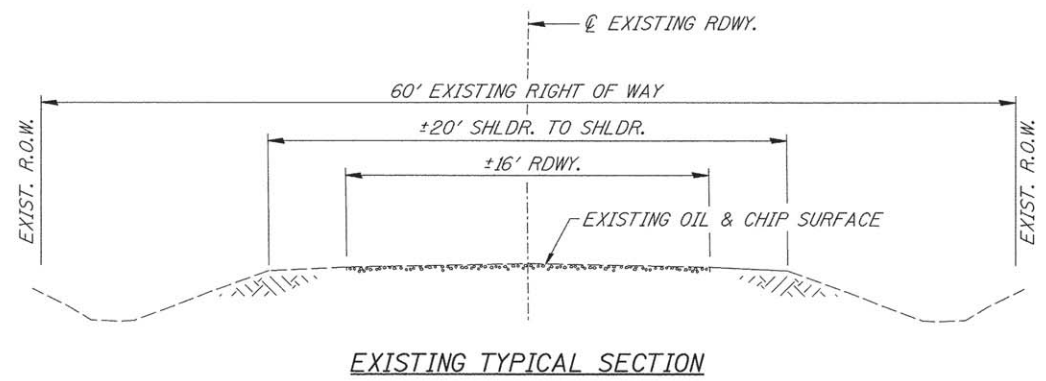
FRONTIER COMMUNICATIONS
 ROSEVILLE, ILLINOIS

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

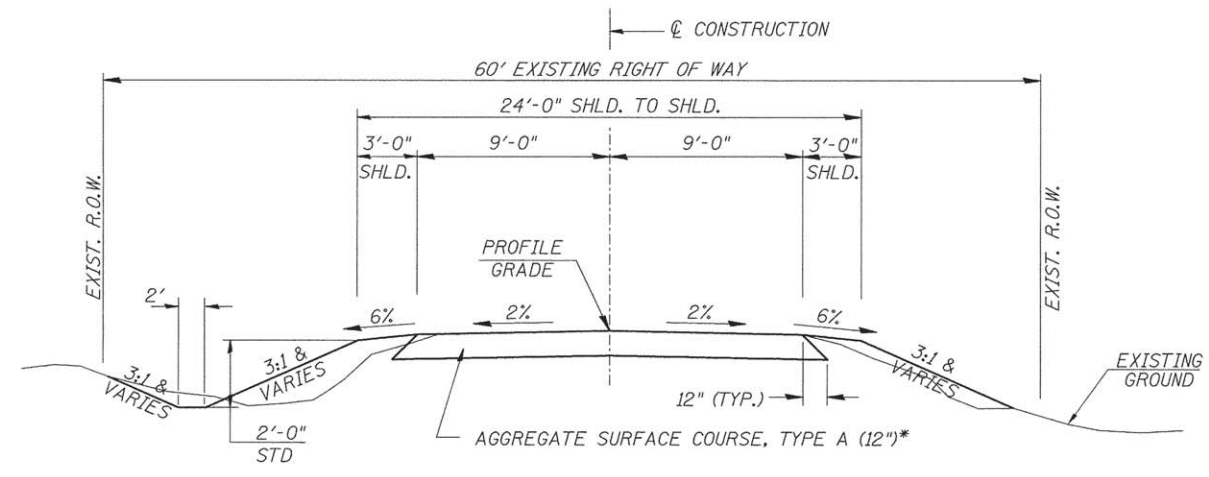
MILO ROAD DISTRICT

CONTRACT NO. 87641

3517E001



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

STA. 18+50.00 TO STA. 19+69.50
 STA. 20+28.50 TO STA. 21+50.00
 EXCEPT TRANSITIONS

BRIDGE OMISSION
 STA. 19+69.50 TO STA. 20+28.50

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

GENERAL NOTES

THE REMOVAL OF EXISTING OIL & CHIP 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

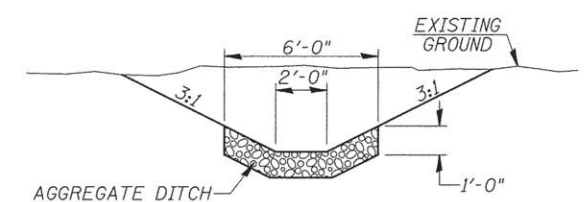
THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES 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.



DETAIL OF AGGREGATE DITCH

FILE NAME = V:\Bridge\3517-Bureau\3517+001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -	BUREAU COUNTY TOWNSHIP ROAD 154 OVER FOX CREEK	GENERAL NOTES, DETAILS, TYPICAL SECTIONS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1,0000' / 1in.	DRAWN -	REVISED -			TR 154	11-16116-00-BR	BUREAU	22	2	
	PLOT DATE = 4/15/2016	CHECKED -	REVISED -			CONTRACT NO. 87641					
		DATE -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT NO. BROS-0011053	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
① 20200100	EARTH EXCAVATION	CU YD	255
20300100	CHANNEL EXCAVATION	CU YD	80
① 20700220	POROUS GRANULAR EMBANKMENT	CU YD	23.7
25100630	EROSION CONTROL BLANKET	SQ YD	989
28000305	TEMPORARY DITCH CHECKS	FOOT	84
28000400	PERIMETER EROSION BARRIER	FOOT	285
① 28300400	AGGREGATE DITCH	TON	76
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	315
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	20.0
50300280	CONCRETE ENCASEMENT	CU YD	2.6
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1,372
50800105	REINFORCEMENT BARS	POUND	2,300
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	118
51200957	FURNISHING METAL SHELL PILES 12"X0.250"	FOOT	392
51202305	DRIVING PILES	FOOT	392
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
67100100	MOBILIZATION	L SUM	1
① X2501100	SEEDING, CLASS 3 (SPECIAL)	ACRE	0.2
① X2810208	STONE RIPRAP, CLASS A4 (SPECIAL)	TON	330
① X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
① Z0013798	CONSTRUCTION LAYOUT	L SUM	1

① SEE SPECIAL PROVISIONS

CONSTRUCTION CODE TYPE: 0011

Δ SPECIALTY ITEMS

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+50.00 - 19+69.50	173			23	107
RDWY 20+28.50 - 21+50.00	83			91	(29)
CHANNEL		80			
STRUCTURE			75		
TOTAL	256	80	75	114	78
USE	255	80	*75	-	78

(* 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+50 - 19+70	LEFT	VARIES	120'	222
18+50 - 19+70	RIGHT	VARIES	120'	196
20+29 - 21+50	LEFT	VARIES	121'	287
20+29 - 21+50	RIGHT	VARIES	121'	284
TOTAL				989

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
18+50 - 18+75	LEFT	25
19+50 - 19+70	RIGHT	35
20+29 - 21+50	LEFT	140
20+29 - 20+50	RIGHT	35
21+00 - 21+50	RIGHT	50
TOTAL		285

TEMPORARY DITCH CHECKS

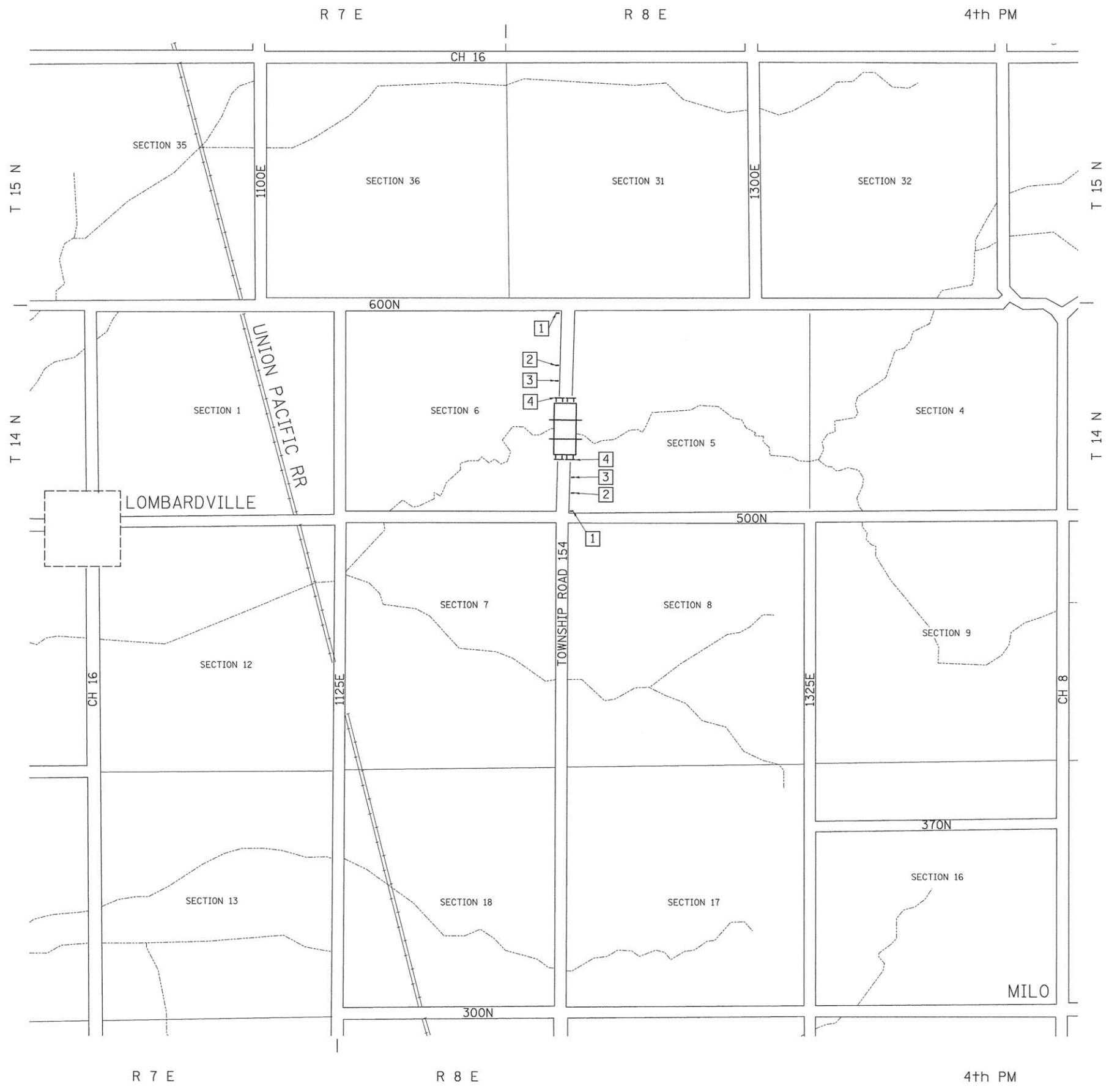
STATION	SIDE	FOOT
19+00	LEFT	12
19+00	RIGHT	12
19+25	LEFT	12
19+50	LEFT	12
19+50	RIGHT	12
19+75	LEFT	12
20+50	RIGHT	12
TOTAL		84

AGGREGATE DITCH

STATION TO STATION	SIDE	WIDTH	TON
18+50 - 19+70	RIGHT	6'	43
18+75 - 19+70	LEFT	6'	33
TOTAL			76

AGGREGATE SURFACE COURSE, TYPE A

STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
18+50.00 - 19+00.00	1.00'	18.18' AVG.	50.00'	64
19+00.00 - 19+69.50	1.00'	19.00'	69.50'	92
20+28.50 - 21+00.00	1.00'	19.00'	71.50'	95
21+00.00 - 21+50.00	1.00'	18.23' AVG.	50.00'	64
TOTAL				315



- 1 ROAD CLOSED
1/2 MILE AHEAD
LOCAL TRAFFIC ONLY
R11-3
- 2 ROAD CLOSED
AHEAD
ROAD CLOSED
AHEAD
W20-3
- 3 ROAD CLOSED
500 FT
ROAD CLOSED
500 FT
W20-3
- 4 TYPE III BARRICADES

SEE STANDARD BLR 21
AND SPECIAL PROVISIONS

FILE NAME = V:\Bridges\3517-Bureau\3517h\001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -	BUREAU COUNTY TOWNSHIP ROAD 154 OVER FOX CREEK	TRAFFIC CONTROL PLAN			RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1.0000" / 1in.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00	TR 154	11-16116-00-BR	BUREAU	22	4
	PLOT DATE = 4/15/2016	CHECKED -	REVISED -					CONTRACT NO. 87641				
		DATE -	REVISED -					FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BROS-0011153				

T 14 N, R 8 E, 4th PM
SECTION 6

PROPOSED STRUCTURE
S.N. 006-4236

CREEK

FOX

T 14 N, R 8 E, 4th PM
SECTION 5






**BUREAU COUNTY
TOWNSHIP ROAD 154
OVER FOX CREEK**

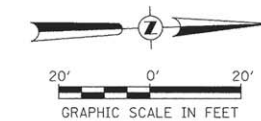
TOWNSHIP ROAD 154

15' CMP

15' CMP

LEGEND

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



FILE NAME = V:\Bridges\3517-Bureau\3517S001.dgn	USER NAME = JHutchison	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20,0000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 4/15/2016	DATE -	REVISED -

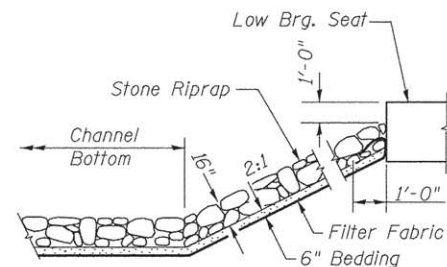
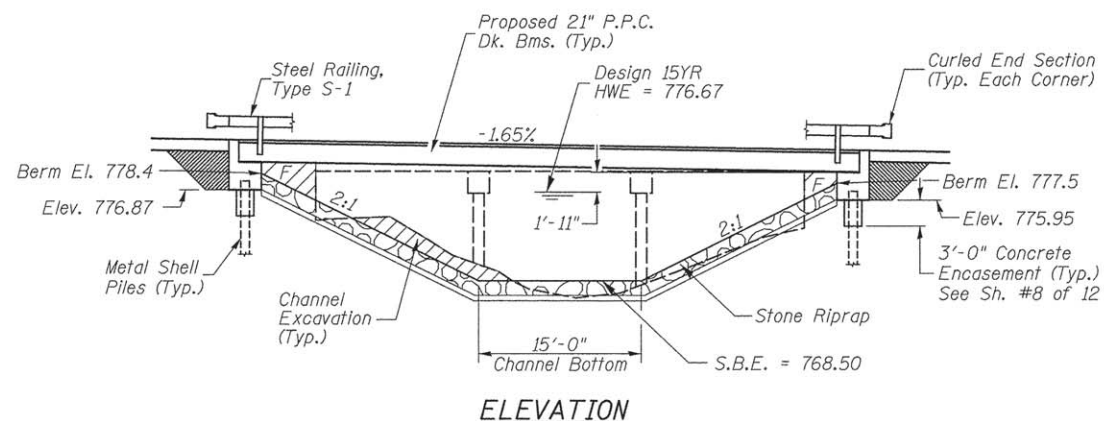
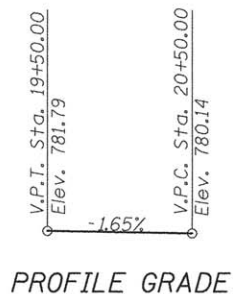
EROSION CONTROL PLAN		
SCALE: 1" = 20'	SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 154	11-16116-00-BR	BUREAU	22	5
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0011153	
CONTRACT NO. 87641				

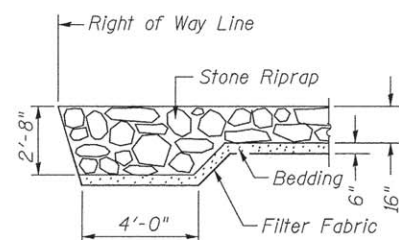
B.M.: RR Spike in Power Pole Sta. 17+44, 29' Rt. Elev. 787.78
 RR Spike in Telephone Pole Sta. 20+74, 27' Rt. Elev. 777.19

Existing Structure:
 Three span precast Nelson beam bridge on timber pile bent piers with concrete caps and timber pile bent abutments with concrete caps and timber lagging. The structure is ±48'-0" back to back of abutments, ±22'-0" out to out deck, and is not skewed. Str. No. 006-4225

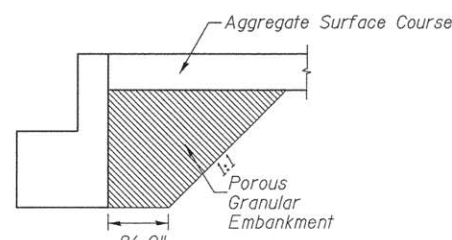
Salvage: None
 Road to be closed to traffic during construction.



STONE RIPRAP DETAIL



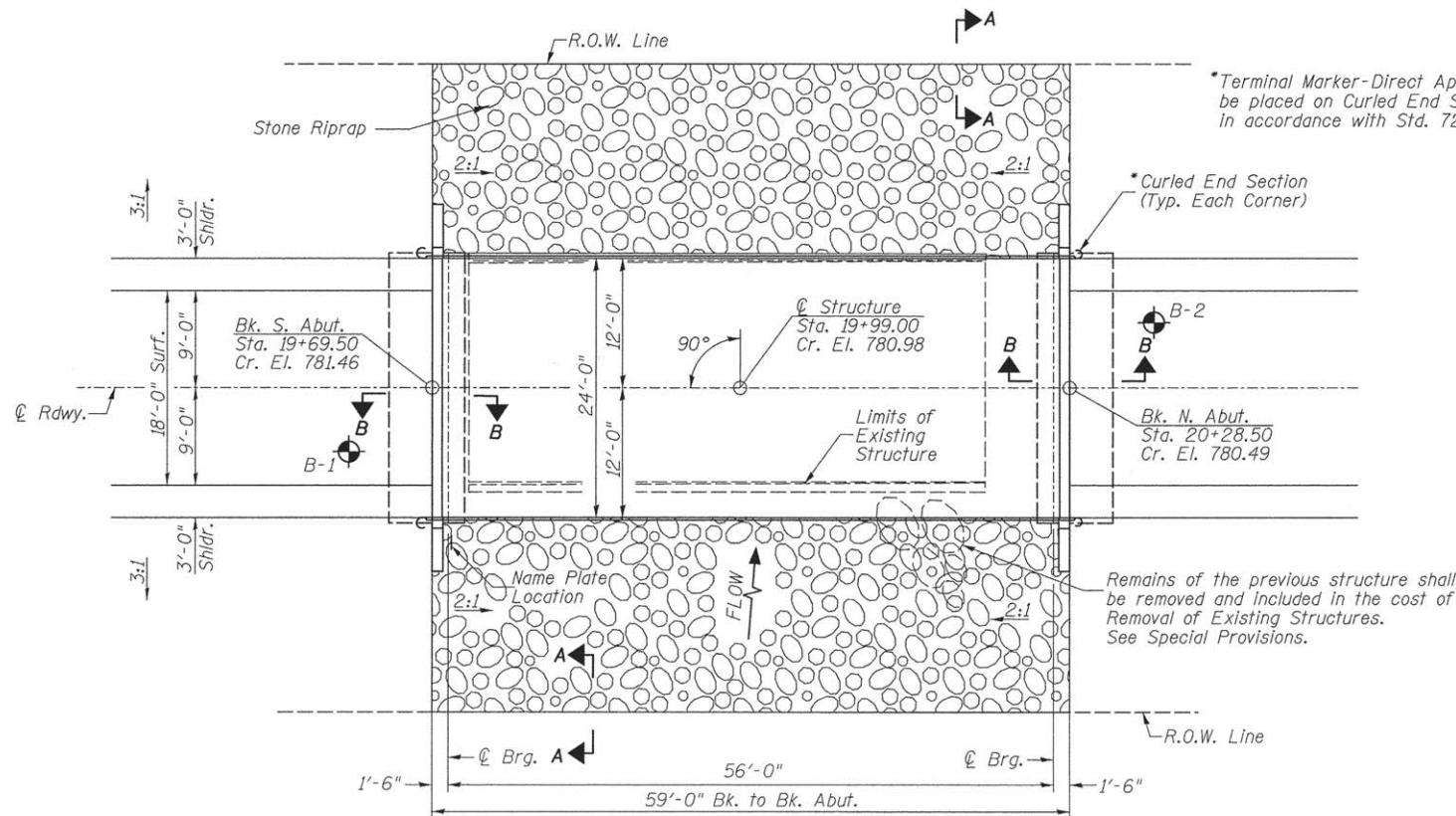
SECTION A-A



SECTION B-B

PROFILE GRADE

ELEVATION



PLAN

DESIGN SCOUR TABLE

Location	S. Abut.	N. Abut.
Design Scour Elevation	776.87	775.95

WATERWAY INFORMATION

Drainage Area = 4.67 Sq. Mi.		Low Grade Elev. = 778.88 @ Sta. 22+00.00						
Flood Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. Head - Ft.	Headwater El.				
Design	15	1,611	257	776.67	0.55	0.48	777.22	777.15
Base	100	2,660	303	777.79	1.52	1.31	779.31	779.10

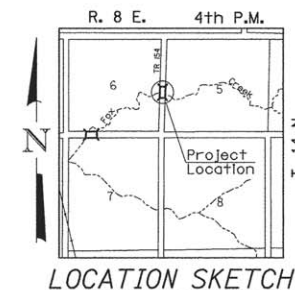
DESIGN SPECIFICATIONS
 2014 AASHTO LRFD Bridge Design Specifications
 7th Edition with 2015 Interims

DESIGN STRESSES

(FIELD UNITS) f'c = 3,500 p.s.i. fy = 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'sl = 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. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

FOX CREEK
 BUILT 20L BY
 MILO ROAD DISTRICT
 BUREAU COUNTY
 SEC. 11-16116-00-BR
 T.R. 154 STATION 19+99.00
 F.A. PROJ. BR05-001(153)
 STR. NO. 006-4236 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	—	80	80
Stone Riprap, Class A4 (Special)	TON	—	330	330
Removal of Existing Structures	EACH	—	—	1
Concrete Structures	CU YD	—	20.0	20.0
Precast Prestressed Concrete Deck Beams (21" Depth)	SQ FT	1,372	—	1,372
Reinforcement Bars	POUND	—	2,300	2,300
Steel Railing, Type S-1	FOOT	118	—	118
Furnishing Metal Shell Piles 12"x0.250"	FOOT	—	392	392
Driving Piles	FOOT	—	392	392
Test Pile Metal Shells	EACH	—	2	2
Concrete Encasement	CU YD	—	2.6	2.6
Name Plates	EACH	—	1	1
Porous Granular Embankment	CU YD	—	23.7	23.7

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.

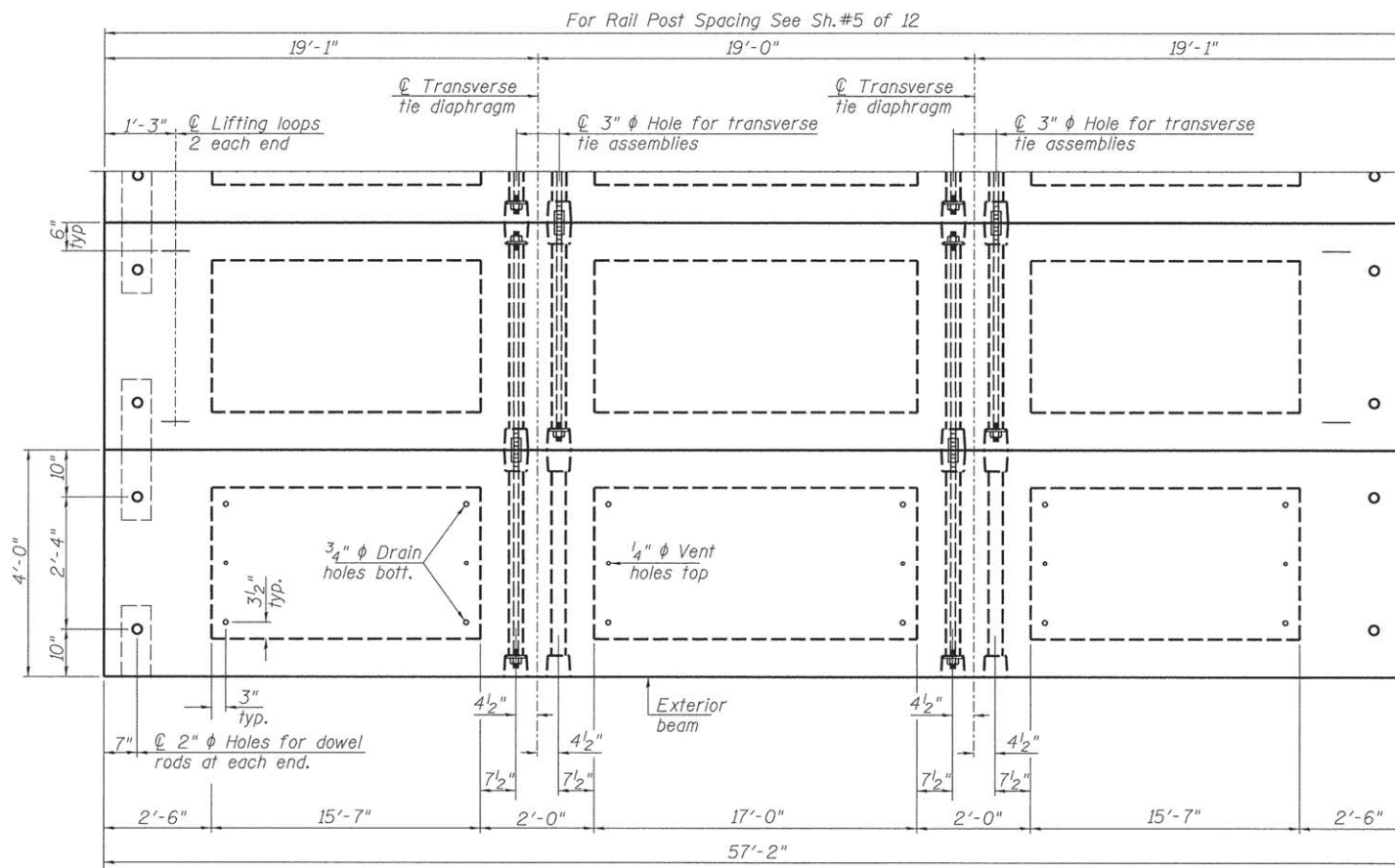
[Signature] 4/15/2016
 Illinois Structural No. 6440
 Expires 11/30/2016



GENERAL PLAN & ELEVATION
 BUREAU COUNTY
 SECTION 11-16116-00-BR
 T.R. 154 OVER FOX CREEK

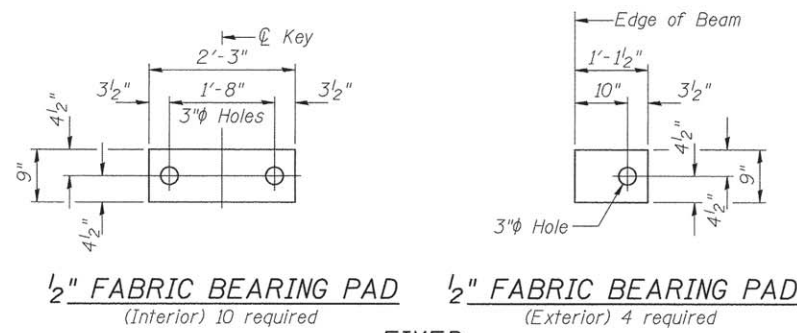
DESIGNED	S.T.M.
CHECKED	C.T.M./J.E.H.
DRAWN	S.T.M.
CHECKED	C.T.M./J.E.H.

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	TR 154	11-16116-00-BR	BUREAU	22	7
S.N. 006-4236			CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-001(153)		



PLAN VIEW

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



1/2" FABRIC BEARING PAD (Interior) 10 required
1/2" FABRIC BEARING PAD (Exterior) 4 required
FIXED

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" ϕ 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.

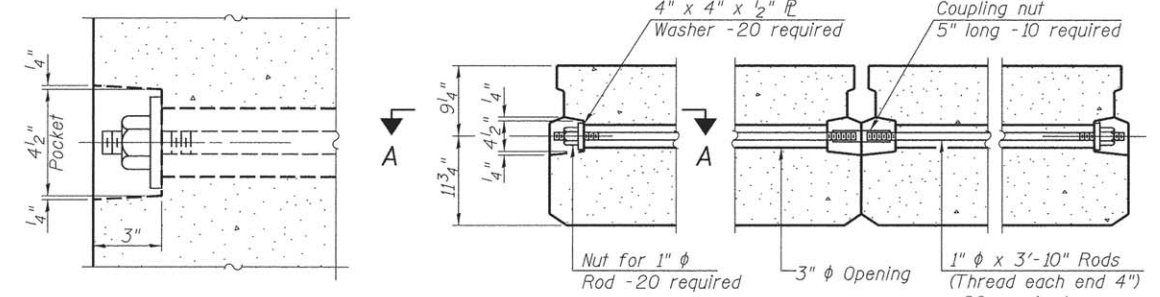
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 1/2" ϕ 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.

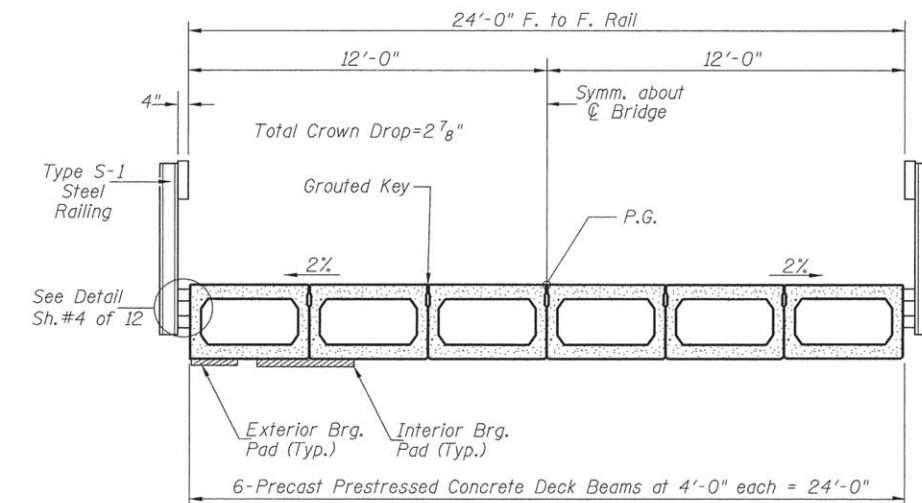
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

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



SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY



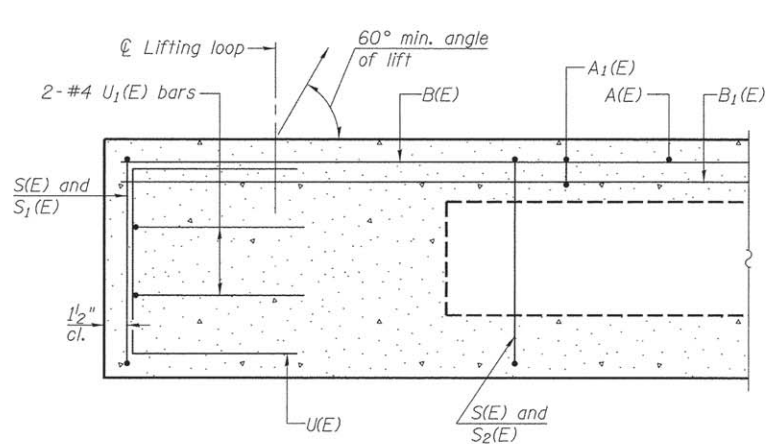
CROSS SECTION

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (21" Depth)	SQ FT	1,372

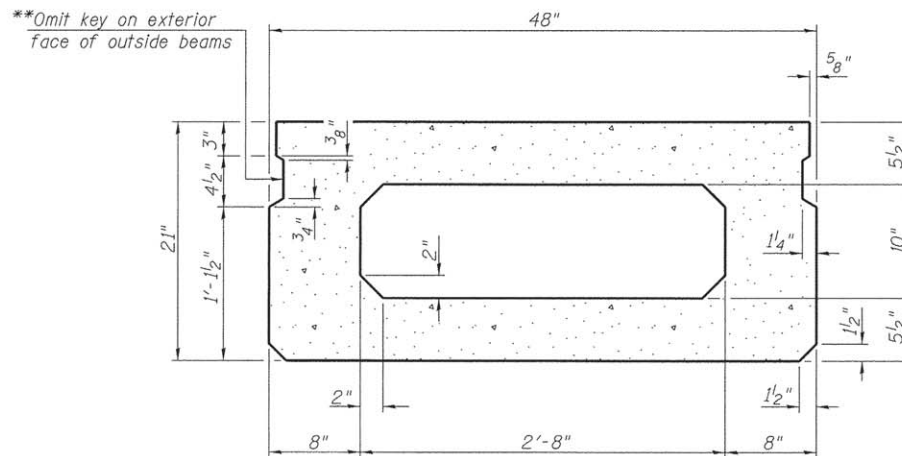
SUPERSTRUCTURE
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 2 12 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	8
S.N. 006-4236			CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BR05-0011(153)			

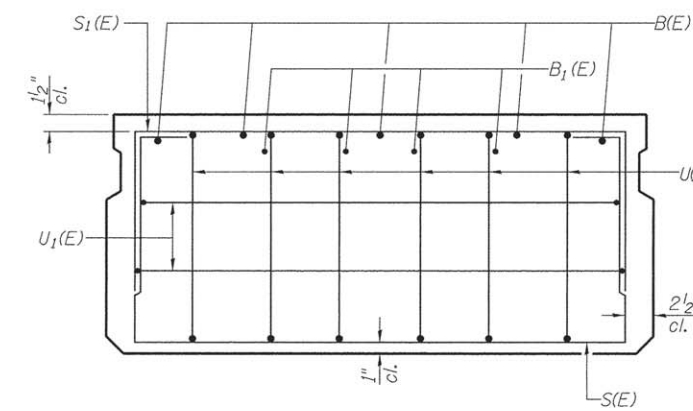


SECTION C-C

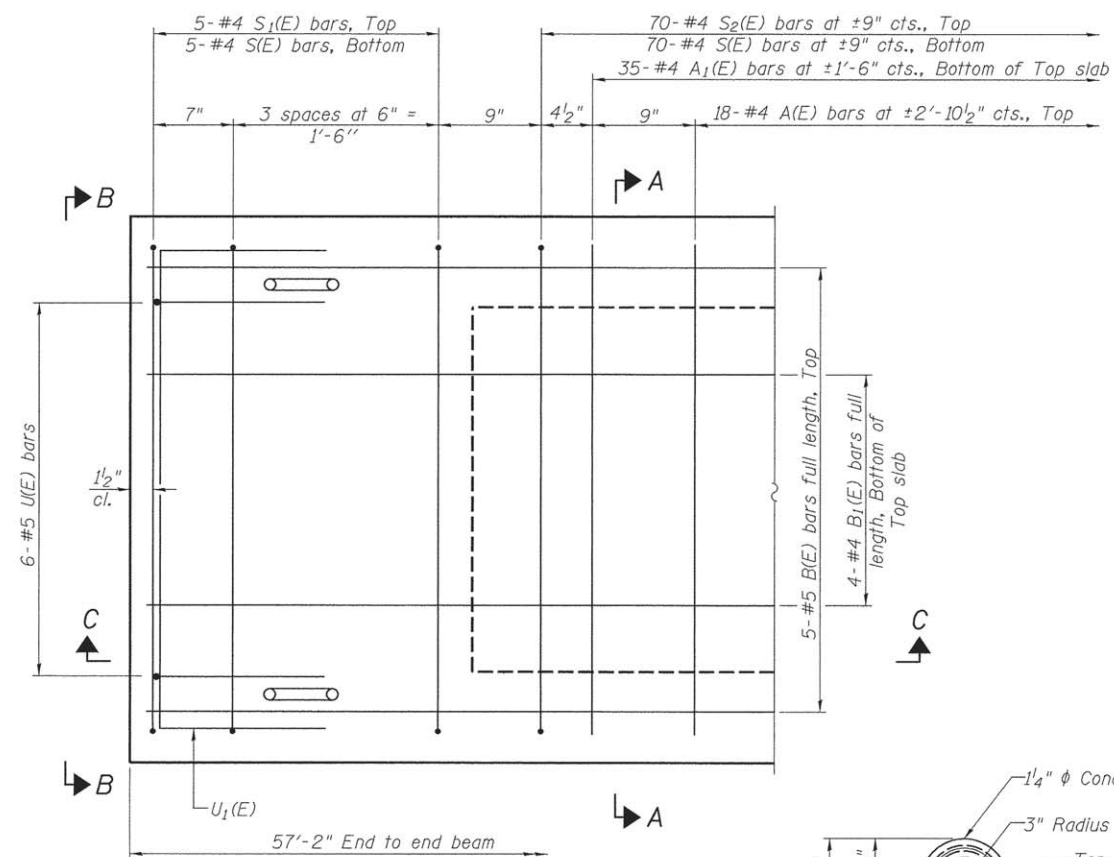
**Rail post anchor devices (Sheet 4 of 12) to be cast into exterior face of outside beams.



SECTION A-A
(Showing dimensions)

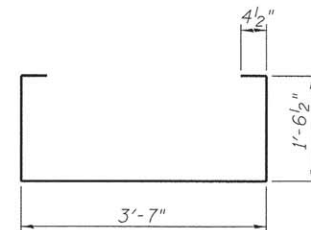


VIEW B-B

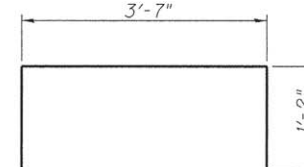


PLAN VIEW

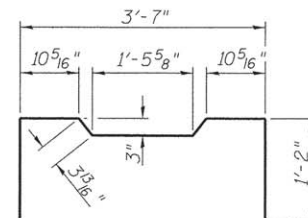
Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



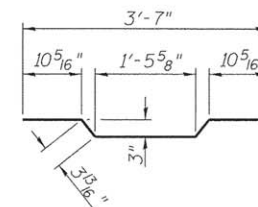
BAR S(E)



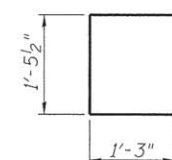
BAR S1(E)



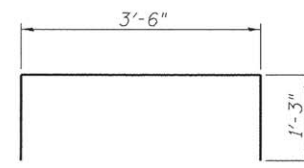
BAR S2(E)



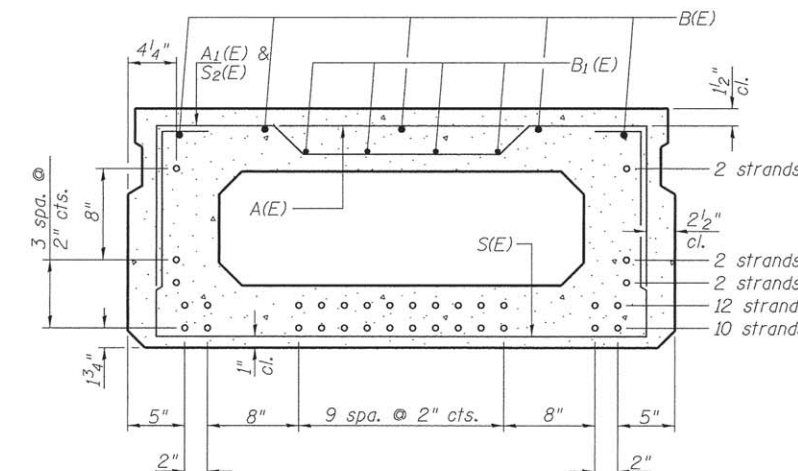
BAR A1(E)



BAR U(E)



BAR U1(E)



SECTION A-A

28-1/2" Strands Each Strand Stressed to 30,900 Lbs.
10-Strands 1 3/4" up, 12-Strands 3 3/4" up, 2-Strands 5 3/4"
2-Strands 7 3/4" up, 2-Strands 1'-3 3/4"

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)	18	#4	3'-7"	—
A1(E)	35	#4	3'-10"	~
B(E)	5	#5	*56'-11"	—
B1(E)	4	#4	*56'-11"	—
S(E)	80	#4	7'-5"	⌋
S1(E)	10	#4	5'-11"	⌋
S2(E)	70	#4	6'-2"	⌋
U(E)	12	#5	4'-0"	⌋
U1(E)	4	#4	6'-0"	⌋

MIN. BAR LAP

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

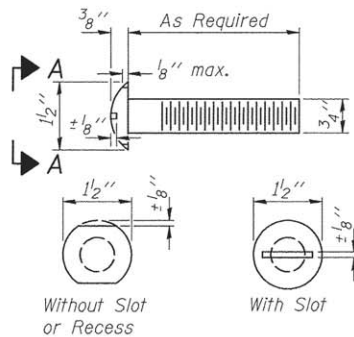
* Total Length.
Lap as necessary

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

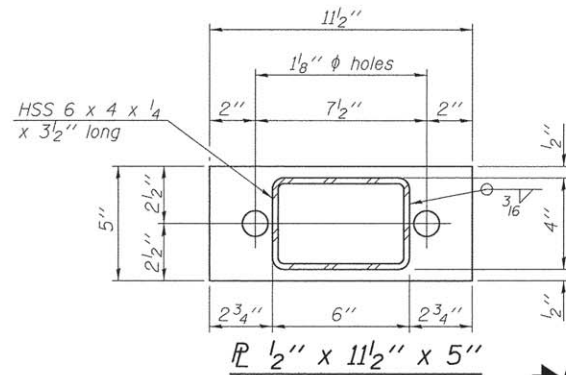
SUPERSTRUCTURE DETAILS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 3 12 SHEETS	ROUTE NO. TR 154	SECTION 11-16116-00-BR	COUNTY BUREAU	TOTAL SHEETS 22	SHEET NO. 9
	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR0S-0011(153)		

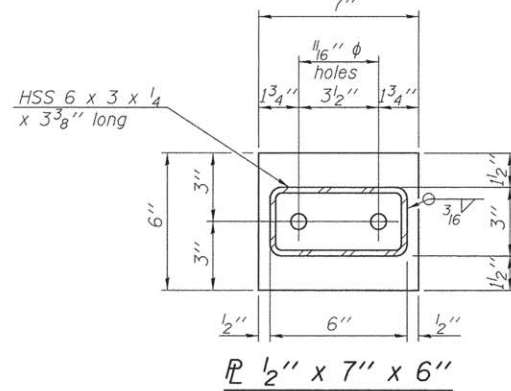
FOR RAIL POST SPACING SEE SH.#5 OF 12



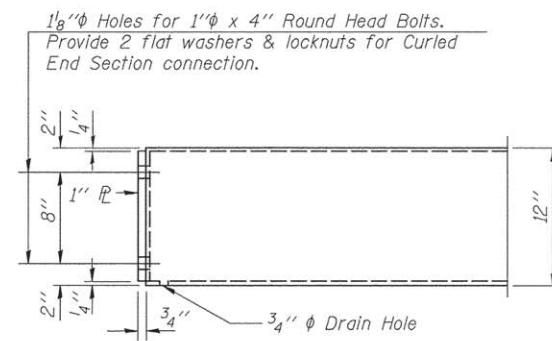
VIEW A-A
ROUND HEAD BOLT



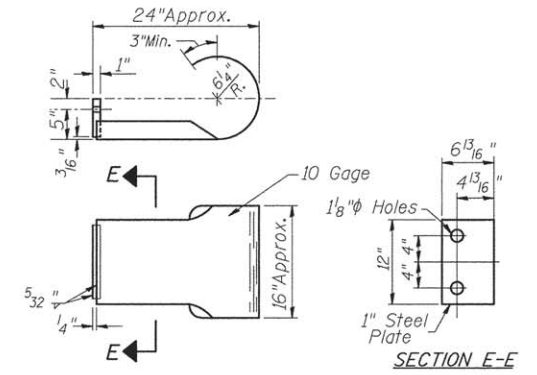
SECTION B-B
R 1/2" x 11 1/2" x 5"



SECTION C-C
R 1/2" x 7" x 6"



END OF RAIL DETAILS



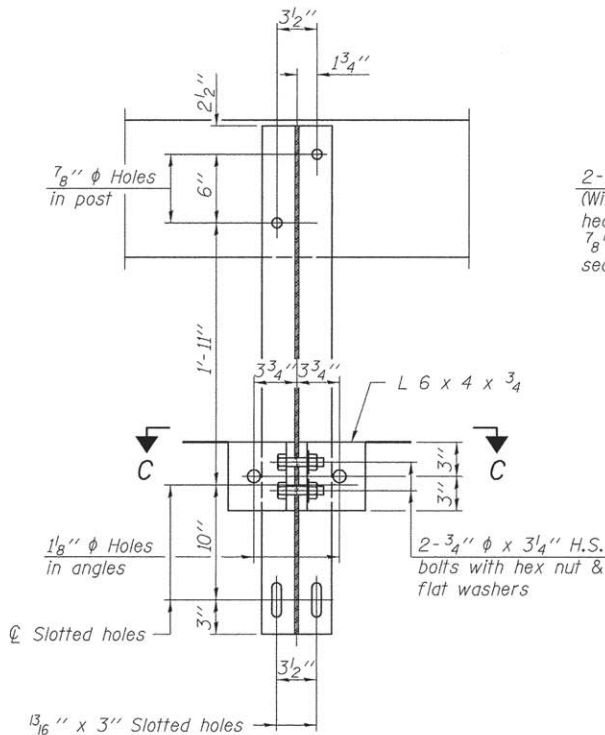
CURLED END SECTION

(Each Corner-4 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 Railing, Type S-1.

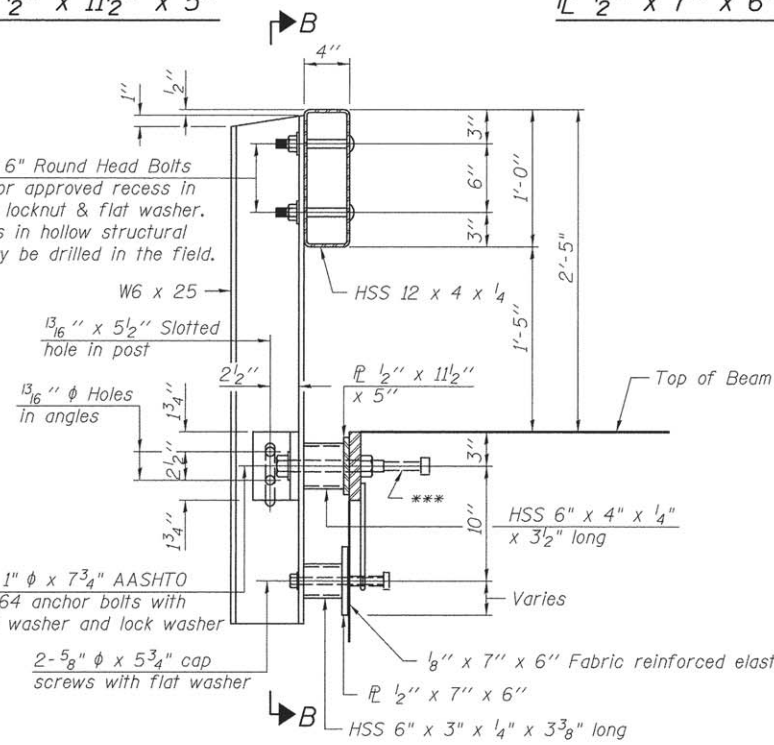
NOTES

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

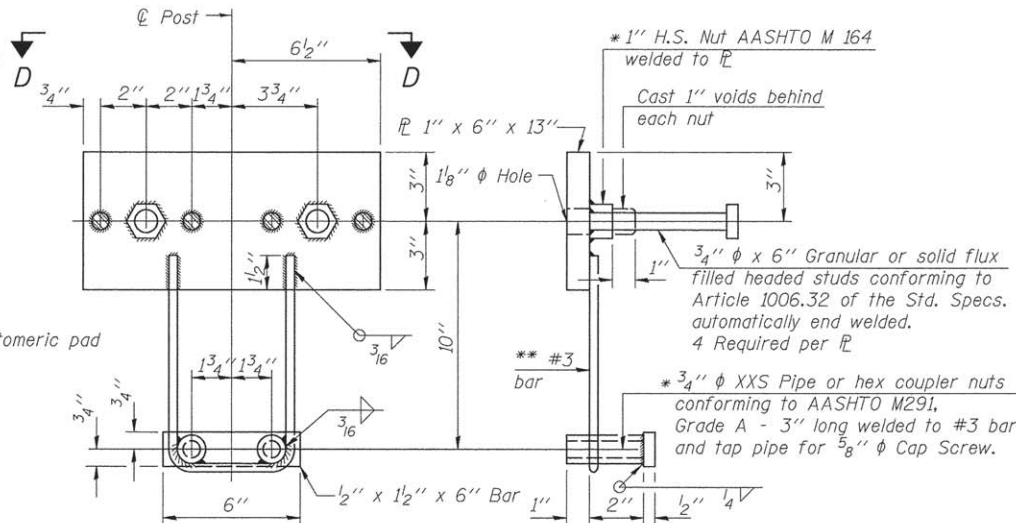
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



SECTION B-B

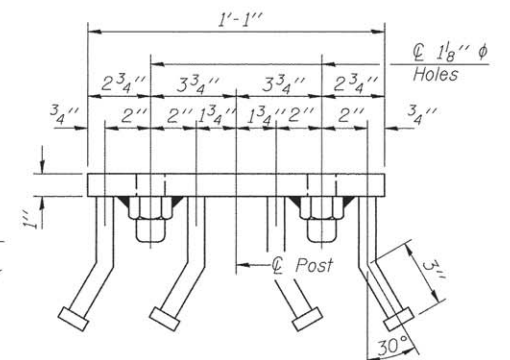


SECTION AT RAILING POST

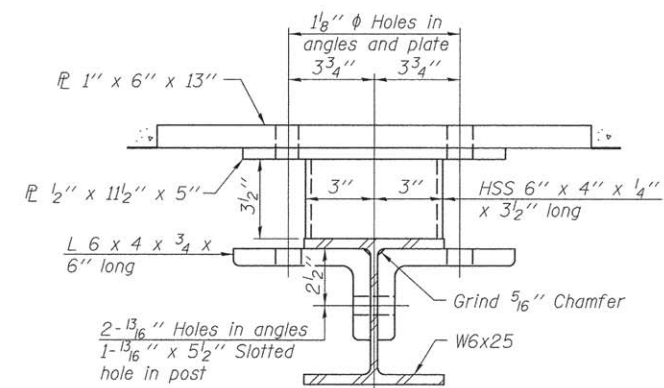


ANCHOR DEVICE

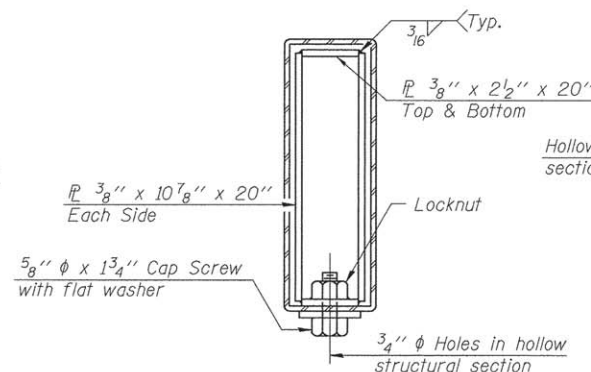
* Threaded areas shall be plugged or blocked off during casting of beam.



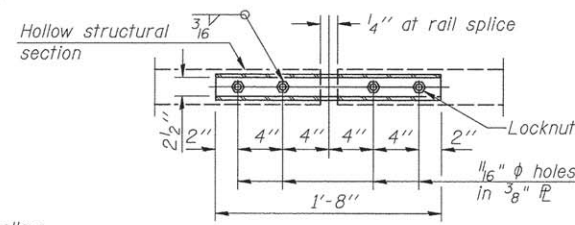
VIEW D-D



SECTION C-C



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL

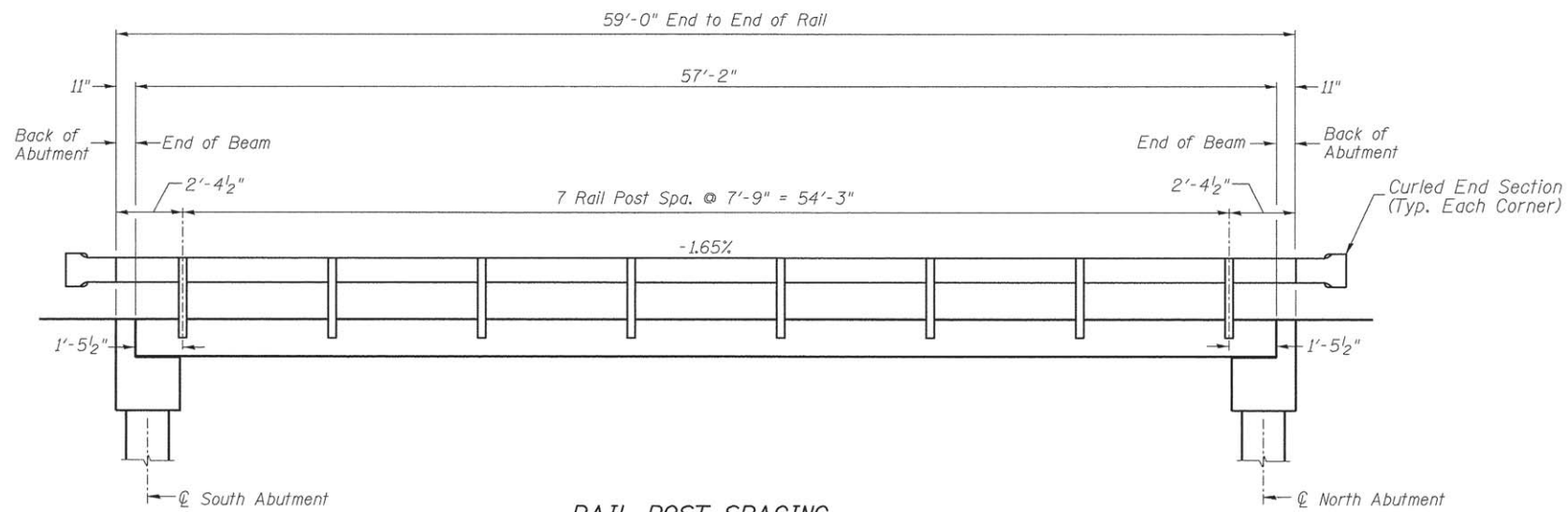
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.

BILL OF MATERIAL

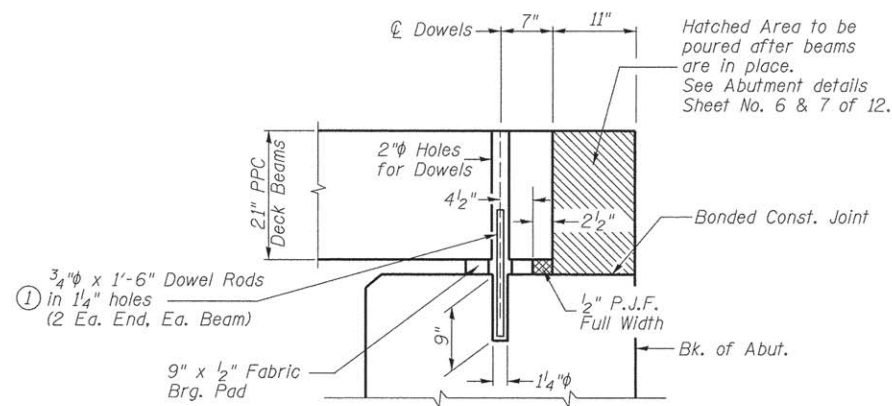
ITEM	UNIT	QUANTITY
Steel Railing, Type S-1	FOOT	118

STEEL RAILING, TYPE S-1
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 4	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	TR 154	11-16116-00-BR	BUREAU	22	10
		S.N. 006-4236		CONTRACT NO. 87641	
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BROS-0011(153)		



RAIL POST SPACING

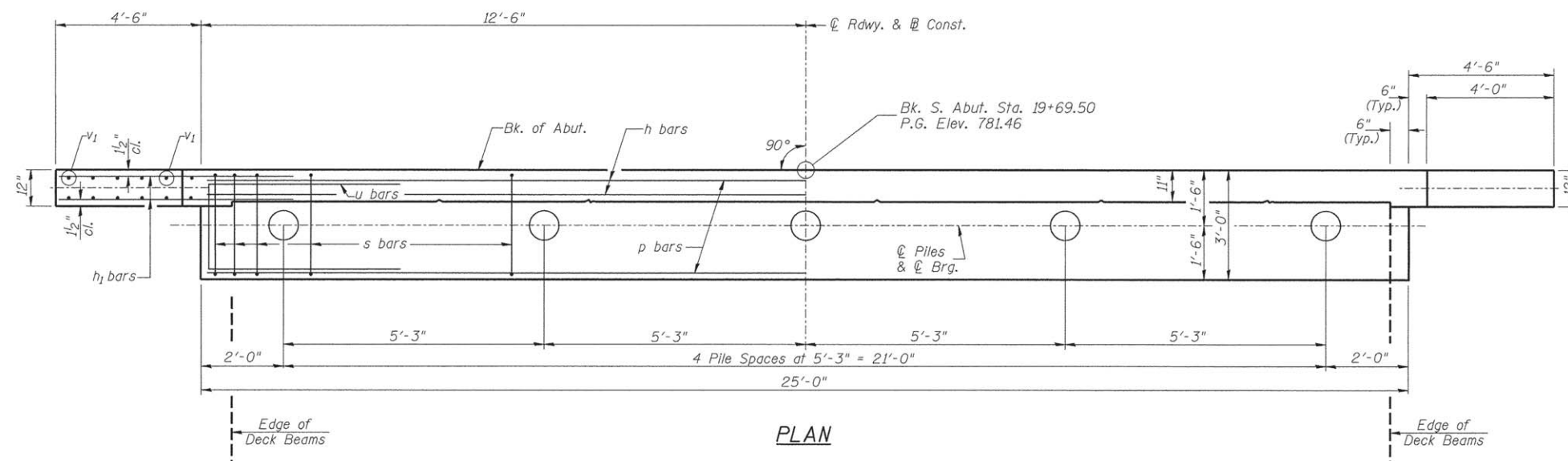


SECTION THRU ABUTMENTS

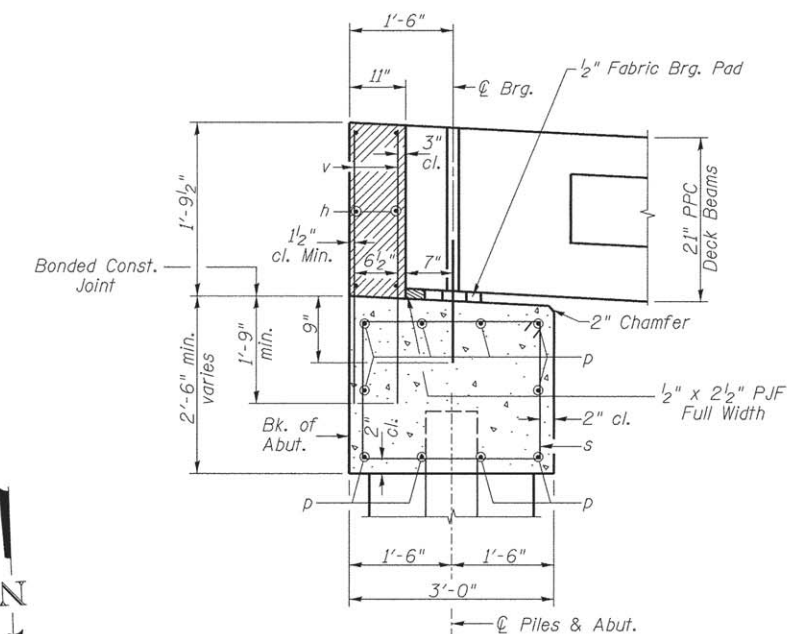
① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

**RAIL POST SPACING AND
SUPERSTRUCTURE DETAILS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK**

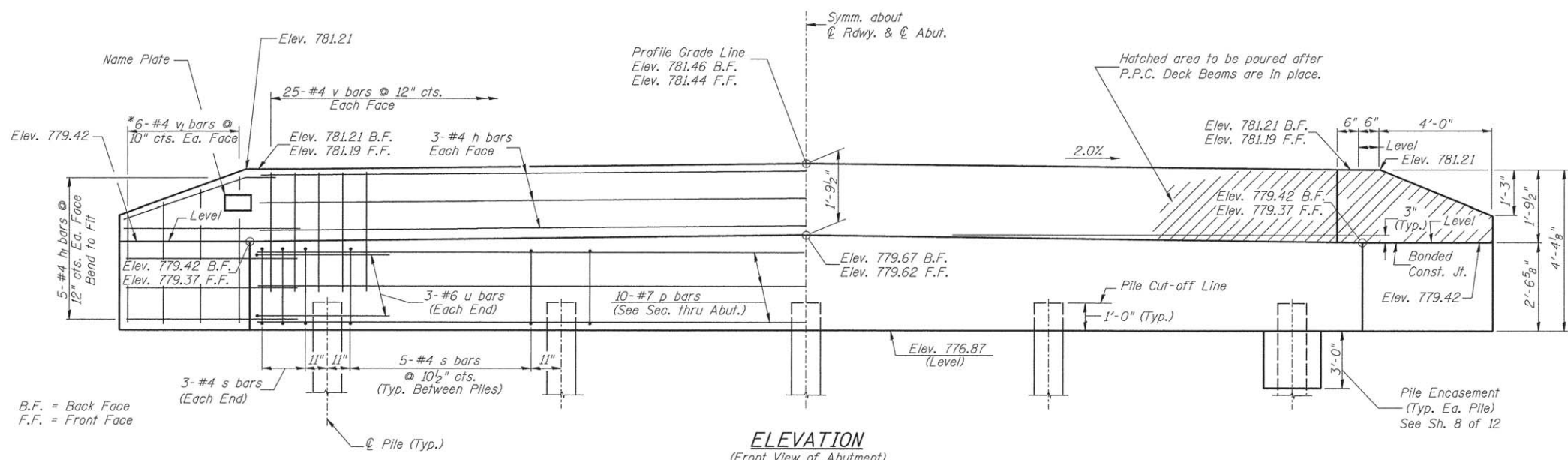
SHEET NO. 5 12 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	11
	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BROS-0011(153)		



PLAN



SECTION THRU ABUT.



ELEVATION
(Front View of Abutment)

**SOUTH ABUTMENT
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	6	#4	24'-9"	—
h ₁	20	#4	6'-6"	—
p	10	#7	24'-9"	—
s	26	#4	10'-5"	□
u	6	#6	11'-7"	□
v	50	#4	3'-6"	—
v ₁	12	#4	6'-9"	—
Concrete Structures		CU YD	10.0	
Reinforcement Bars		POUND	1,150	
Name Plates		EACH	1	
Furnishing Metal Shell Piles 12"x0.250"		FOOT	196	
Driving Piles		FOOT	196	
Test Pile Metal Shells		EACH	1	
Concrete Encasement		CU YD	1.3	

DESIGN STRESSES

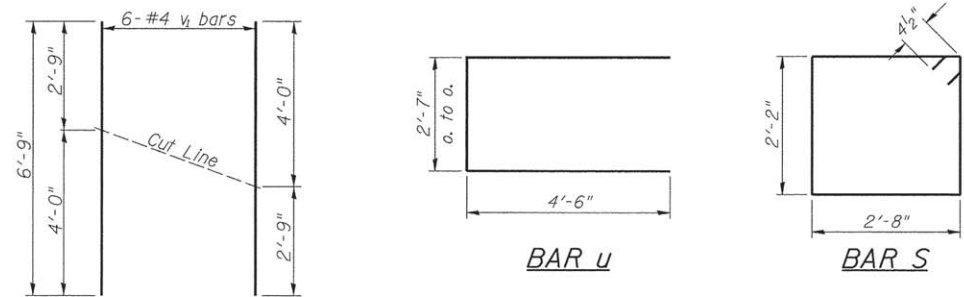
f'_c = 3,500 p.s.i.
f_y = 60,000 p.s.i.

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.

PILE DATA

Type & Size: Metal Shell 12"x0.250" walls
Nominal Required Bearing: 200 kips
Factored Resistance Available: 110 kips
Est. Length: 49'
No. Req'd.: 5 (Includes 1 Test Pile)

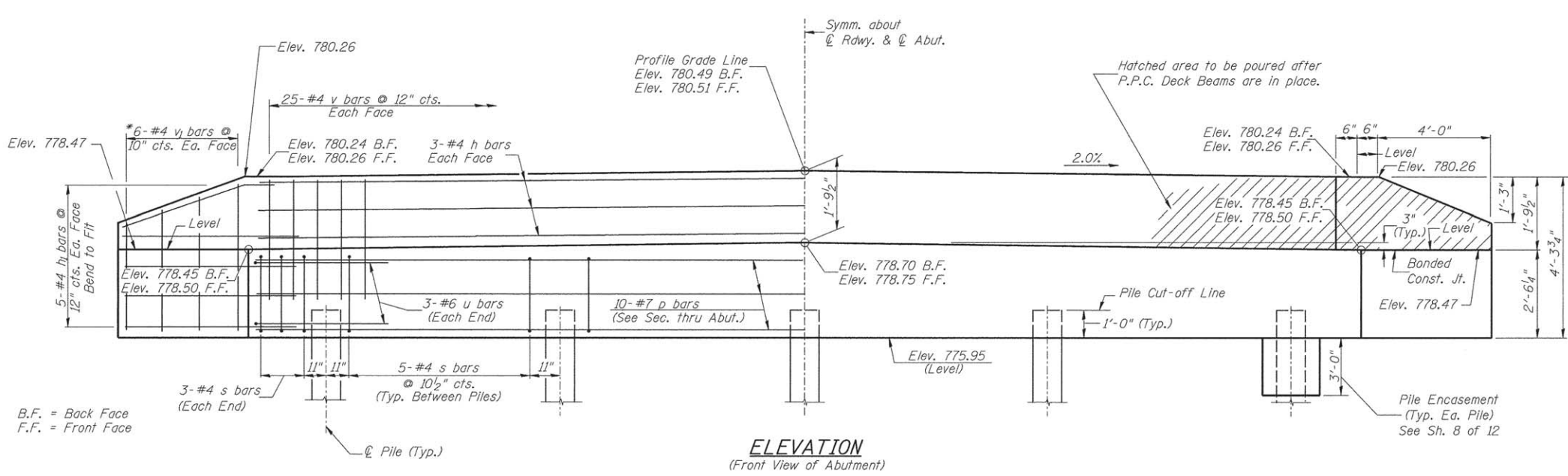
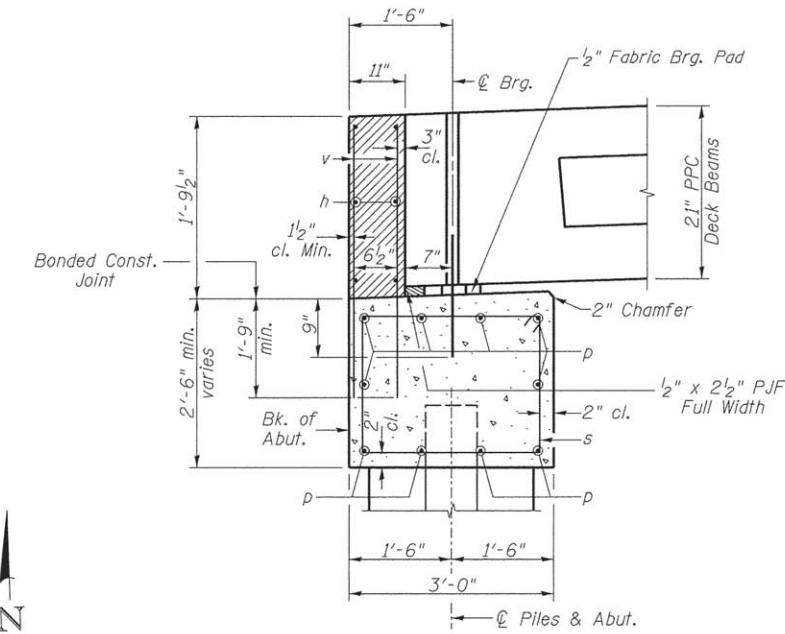
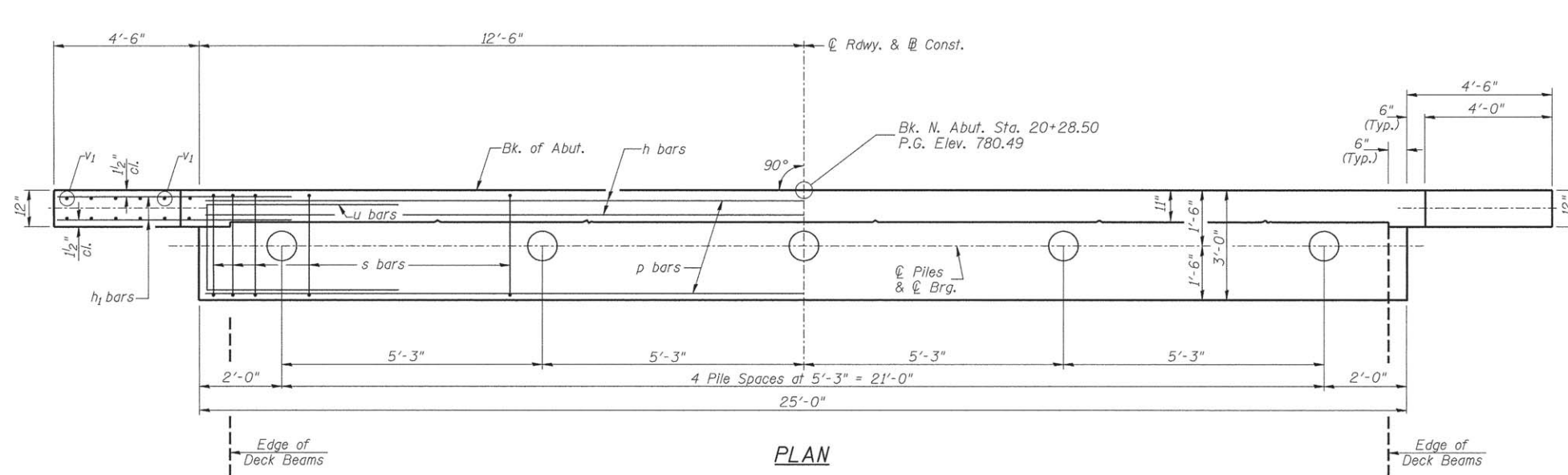


BAR CUTTING DIAGRAM

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

**SOUTH ABUTMENT
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK**

SHEET NO. 6 12 SHEETS	ROUTE NO. TR 154	SECTION 11-16116-00-BR	COUNTY BUREAU	TOTAL SHEETS 22	SHEET NO. 12
	S.N. 006-4236		CONTRACT NO. 87641		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0011(153)		



**NORTH ABUTMENT
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	6	#4	24'-9"	—
h ₁	20	#4	6'-6"	—
p	10	#7	24'-9"	—
s	26	#4	10'-5"	□
u	6	#6	11'-7"	□
v	50	#4	3'-6"	—
v ₁	12	#4	6'-9"	—
Concrete Structures		CU YD	10.0	
Reinforcement Bars		POUND	1,150	
Furnishing Metal Shell Piles 12"x0.250"		FOOT	196	
Driving Piles		FOOT	196	
Test Pile Metal Shells		EACH	1	
Concrete Encasement		CU YD	1.3	

DESIGN STRESSES

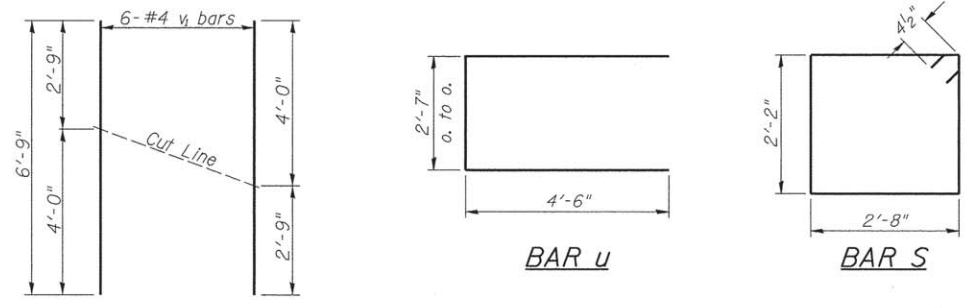
$f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

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.

PILE DATA

Type & Size: Metal Shell 12"x0.250" walls
Nominal Required Bearing: 200 kips
Factored Resistance Available: 110 kips
Est. Length: 49'
No. Req'd.: 5 (Includes 1 Test Pile)



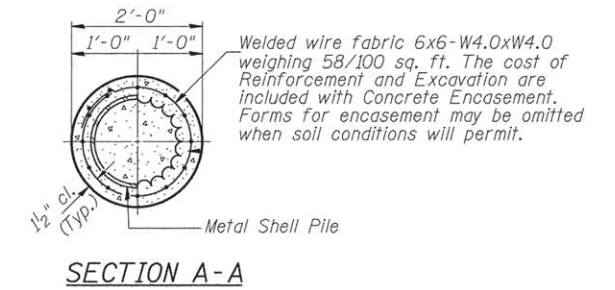
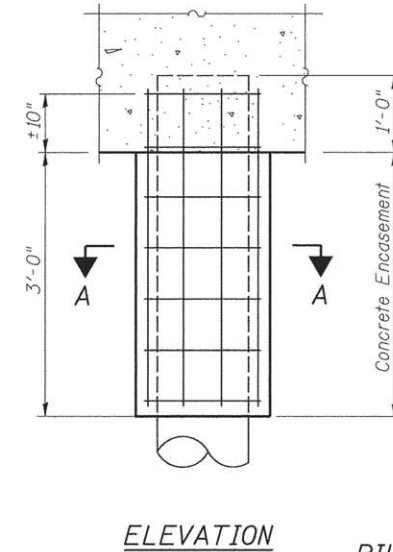
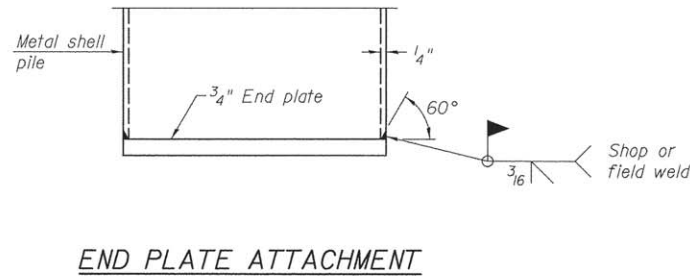
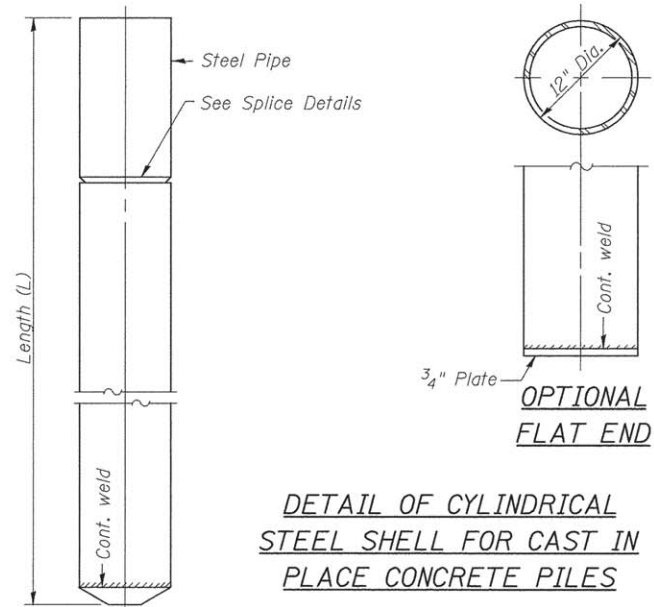
BAR CUTTING DIAGRAM

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

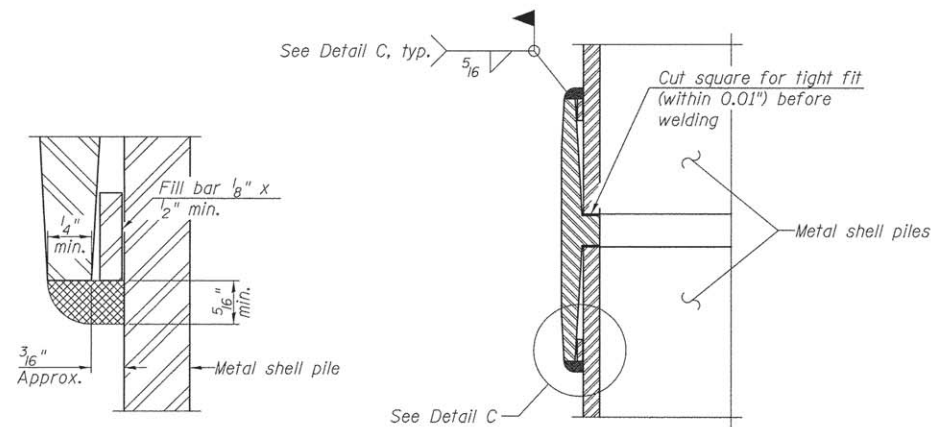
**NORTH ABUTMENT
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK**

SHEET NO. 7 12 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	13
	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BR05-0011(153)			

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.

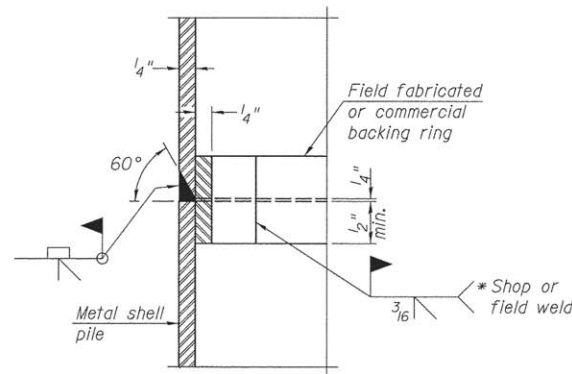


DETAIL OF METAL SHELL PILE ENCASEMENT AT ABUTMENTS

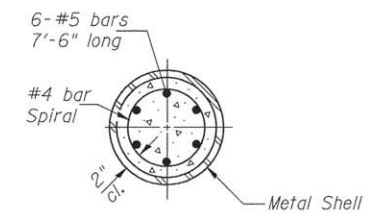
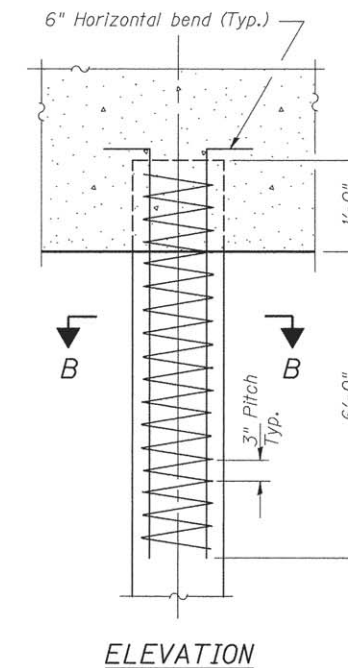


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



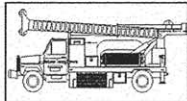
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS

METAL SHELL PILE DETAILS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 8 12 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	14
	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BR05-0011(153)			



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

BORING LOG

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

Sheet 1 of 4

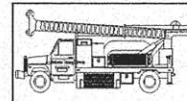
Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-1
Surface Elev. 781.0
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

Location: 6' East of centerline of roadway and 37'
South of center of existing bridge

(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 (%)		
781.00										Randy Safranski Diedrich D-120	
780.00	Stiff Black And Brown Clay (Fill)		1								
779.00			2								
778.00			3	1	SS	1.4	8	S	14		
777.00	Stiff Brownish Gray Clay Till		4								
776.00			5								
775.00			6	2	SS	1.6	9	B	18		
774.00			7								
773.00			8	3	SS	1.6	8	B	23		
772.00	Stiff Gray Clay Till		9								
771.00			10	4	SS	1.4	7	B	24		
770.00			11								
769.00	Stiff Gray Clay Till		12								
768.00			13	5	SS	1.8	9	B	22		
767.00			14								
766.00			15	6	SS	1.2	5	B	25		
765.00			16								
764.00			17								
763.00			18	7	SS	1.4	6	B	23		
762.00	Medium Brownish Gray Silty Sand		19								
761.00			20	8	SS	1.2	6	B	24		

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:



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

BORING LOG

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

Sheet 2 of 4

Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-1
Surface Elev. 781.0
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

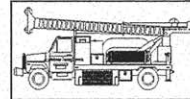
Location: 6' East of centerline of roadway and 37'
South of center of existing bridge

(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 (%)		
760.00										Randy Safranski Diedrich D-120	
759.00	Stiff Gray Clay Till		22								
758.00			23	9	SS	1.2	5	B	25		
757.00			24								
756.00	Loose Gray Silt		25								
755.00			26	10	SS	1.9	10	B	22		
754.00			27								
753.00			28								
752.00			29								
751.00	Medium Brownish Gray Silty Sand		30	11	SS	---	9	---	20		
750.00			31								
749.00			32								
748.00	Medium Brownish Gray Silty Sand		33								
747.00			34								
746.00			35	12	SS	---	11	---	---		
745.00			36								
744.00			37								
743.00			38								
742.00			39								
741.00	Medium Brownish Gray Silty Sand		40								
740.00			41	13	SS	---	10	---	---		

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:

SOIL BORINGS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 9 12 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	15
S.N. 006-4236			CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BROS-0011(153)		



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

BORING LOG

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

Sheet 3 of 4

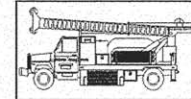
Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-1
Surface Elev. 781.0
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

Location: 6' East of centerline of roadway and 37'
South of center of existing bridge

(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 (%)		
739.00											
738.00			43								
737.00	Medium Brownish Gray Silty Sand		44								
736.00			45	14	SS	---	10	---	---		
735.00			46								
734.00			47								
733.00			48								
732.00	Very Stiff Brownish Gray Silty Clay Loam Till		49								
731.00			50								
730.00			51	15	SS	3.4	22	B	16		
729.00			52								
728.00			53								
727.00			54								
726.00			55								
725.00	Hard Brownish Gray And Pink Silty Clay Loam Till		56	16	SS	4.5	41	S	9		
724.00			57								
723.00			58								
722.00			59								
721.00			60								
720.00			61	17	SS	---	65	---	8		
719.00			62								

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:



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

BORING LOG

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

Sheet 4 of 4

Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-1
Surface Elev. 781.0
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

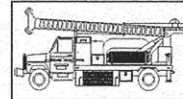
Location: 6' East of centerline of roadway and 37'
South of center of existing bridge

(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 (%)		
718.00											
717.00			64								
716.00			65								
715.00			66	18	SS	---	62	---	8		
714.00			67								
713.00			68								
712.00	Hard Brownish Gray And Pink Silty Clay Loam Till		69								
711.00			70								
710.00			71	19	SS	---	67	---	8		
709.00			72								
708.00			73								
707.00			74								
706.00			75								
705.00			76	20	SS	---	74	---	9		
704.00			77								
703.00			78								
702.00			79								
701.00			80								
700.00			81								
699.00			82								
698.00			83								

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:

SOIL BORINGS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 10 12 SHEETS	ROUTE NO. TR 154	SECTION 11-16116-00-BR	COUNTY BUREAU	TOTAL SHEETS 22	SHEET NO. 16
	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-0011(153)		



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

BORING LOG

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

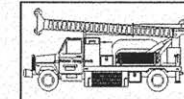
Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-2
Surface Elev. 780.4
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

Location: 6' West of centerline of roadway and 37'
North of center of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear		
780.40										
779.40	Medium Brown Gravely Loam (Fill)		1							
778.40			2							
777.40			3	1	SS	---	11	---	12	
776.40	Stiff Black And Brown Clay (Fill)		4							
775.40			5							
774.40			6	2	SS	1.5	9	S	15	
773.40			7							
772.40			8	3	SS	1.7	10	B	18	
771.40	Stiff Brownish Gray Clay Till		9							
770.40			10							
769.40			11	4	SS	1.3	8	B	24	
768.40			12							
767.40			13	5	SS	1.6	10	B	22	
766.40	Stiff Gray Clay Till		14							
765.40			15							
764.40			16	6	SS	1.3	6	B	25	
763.40			17							
762.40			18	7	SS	1.2	6	B	24	
761.40			19							
760.40			20	8	SS	1.7	7	B	22	

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:



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

BORING LOG

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

Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-2
Surface Elev. 780.4
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

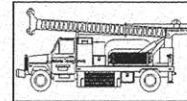
Location: 6' West of centerline of roadway and 37'
North of center of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear		
759.40										
758.40	Stiff Gray Clay Till		22							
757.40			23	9	SS	1.7	8	B	23	
756.40			24							
755.40			25							
754.40			26	10	SS	1.5	9	B	22	
753.40	Loose Gray Silt		27							
752.40			28							
751.40			29							
750.40			30	11	SS	---	8	---	---	
749.40			31							
748.40			32							
747.40			33							
746.40			34							
745.40			35							
744.40			36	12	SS	---	8	---	---	
743.40	Medium Brownish Gray Silty Sand		37							
742.40			38							
741.40			39							
740.40			40							
739.40			41							

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:

SOIL BORINGS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 11	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	17
12 SHEETS	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BR05-0011(153)		



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

BORING LOG

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

Sheet 3 of 4

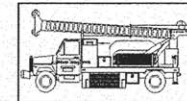
Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-2
Surface Elev. 780.4
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

Location: 6' West of centerline of roadway and 37'
North of center of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					Dry Density (PCF)	DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear			
738.40									Randy Safranski Diedrich D-120		
737.40			43								
736.40	Medium Brownish Gray Silty Sand		44								
735.40			45	14	SS	---	11	---			
734.40			46								
733.40			47								
732.40			48								
731.40	Very Stiff Brownish Gray Silty Clay Loam Till		49								
730.40			50	15	SS	3.1	20	S	15		
729.40			51								
728.40			52								
727.40			53								
726.40			54								
725.40			55	16	SS	5.2	53	S	10		
724.40	Hard Brownish Gray And Pink Silty Clay Loam Till		56								
723.40			57								
722.40			58								
721.40			59								
720.40			60								
719.40			61	17	SS	5.6	61	S	10		
718.40			62								

Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:



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

BORING LOG

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

Sheet 4 of 4

Client: Hutchison Engineering, Inc.
Project Name: Section 11-16116-00-BR
Project Site: Twp. Road 154 Over Fox Creek
Bureau, County, IL.

Boring No. B-2
Surface Elev. 780.4
Auger Depth 76' Rotary Depth NA
Start Date 11/29/12 Finish Date 11/29/12

Location: 6' West of centerline of roadway and 37'
North of center of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					Dry Density (PCF)	DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear			
717.40									Randy Safranski Diedrich D-120		
716.40			64								
715.40			65	18	SS	---	71	---	8		
714.40			66								
713.40	Hard Brownish Gray And Pink Silty Clay Loam Till		67								
712.40			68								
711.40			69								
710.40			70	19	SS	6.0	72	S	7		
709.40			71								
708.40			72								
707.40			73								
706.40			74								
705.40			75	20	SS	---	67	---	8		
704.40			76								
703.40	Boring Terminated		77								
702.40			78								
701.40			79								
700.40			80								
699.40			81	21	SS						
698.40			82								
697.40			83								

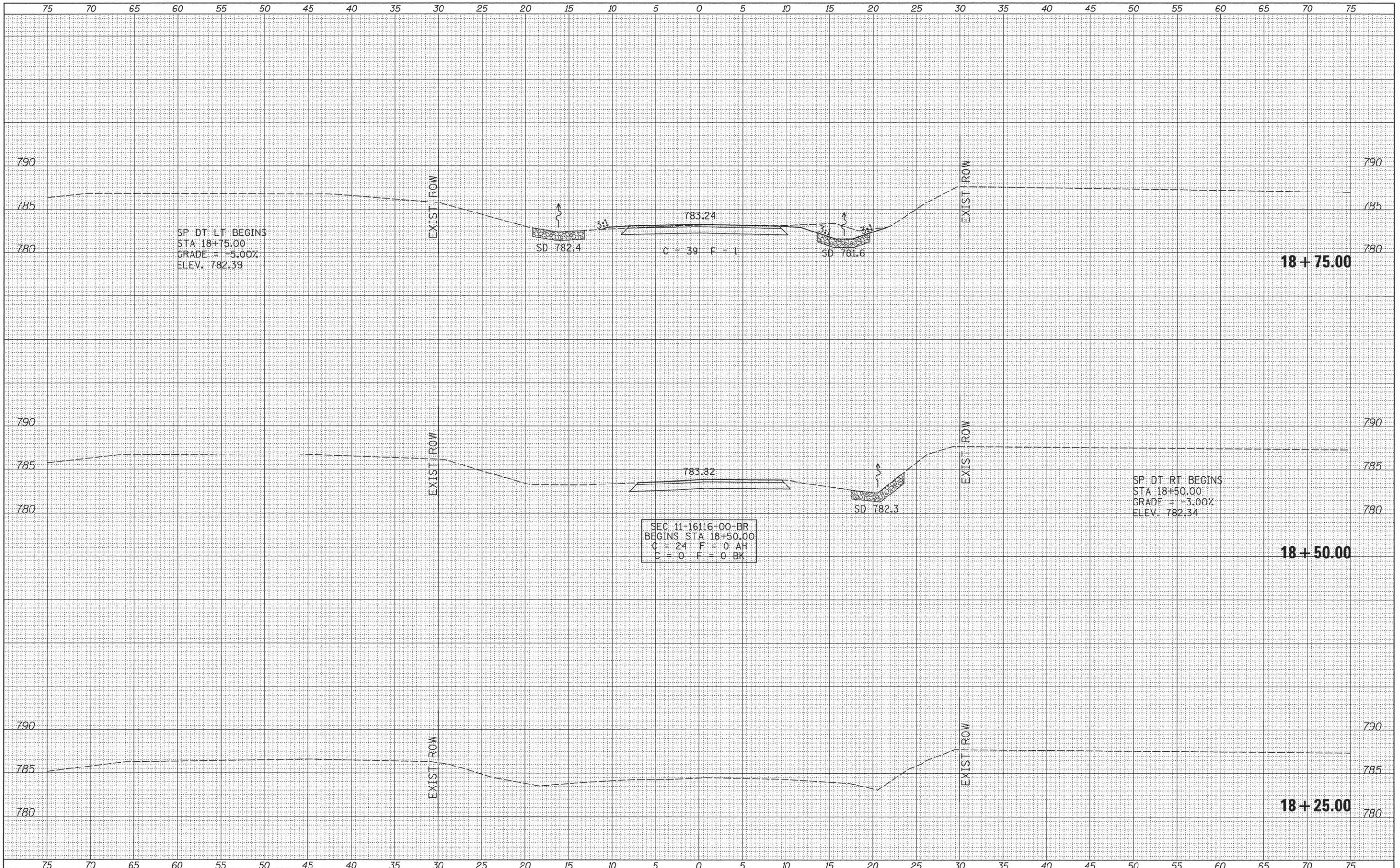
Groundwater Data: Static water level after drilling - Elevation 758.0.
Comments:

SOIL BORINGS
BUREAU COUNTY
SECTION 11-16116-00-BR
T.R. 154 OVER FOX CREEK

SHEET NO. 12	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 154	11-16116-00-BR	BUREAU	22	18
12 SHEETS	S.N. 006-4236		CONTRACT NO. 87641		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0011(153)		

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

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



SP DT LT BEGINS
 STA 18+75.00
 GRADE = -5.00%
 ELEV. 782.39

18+75.00

SP DT RT BEGINS
 STA 18+50.00
 GRADE = -3.00%
 ELEV. 782.34

18+50.00

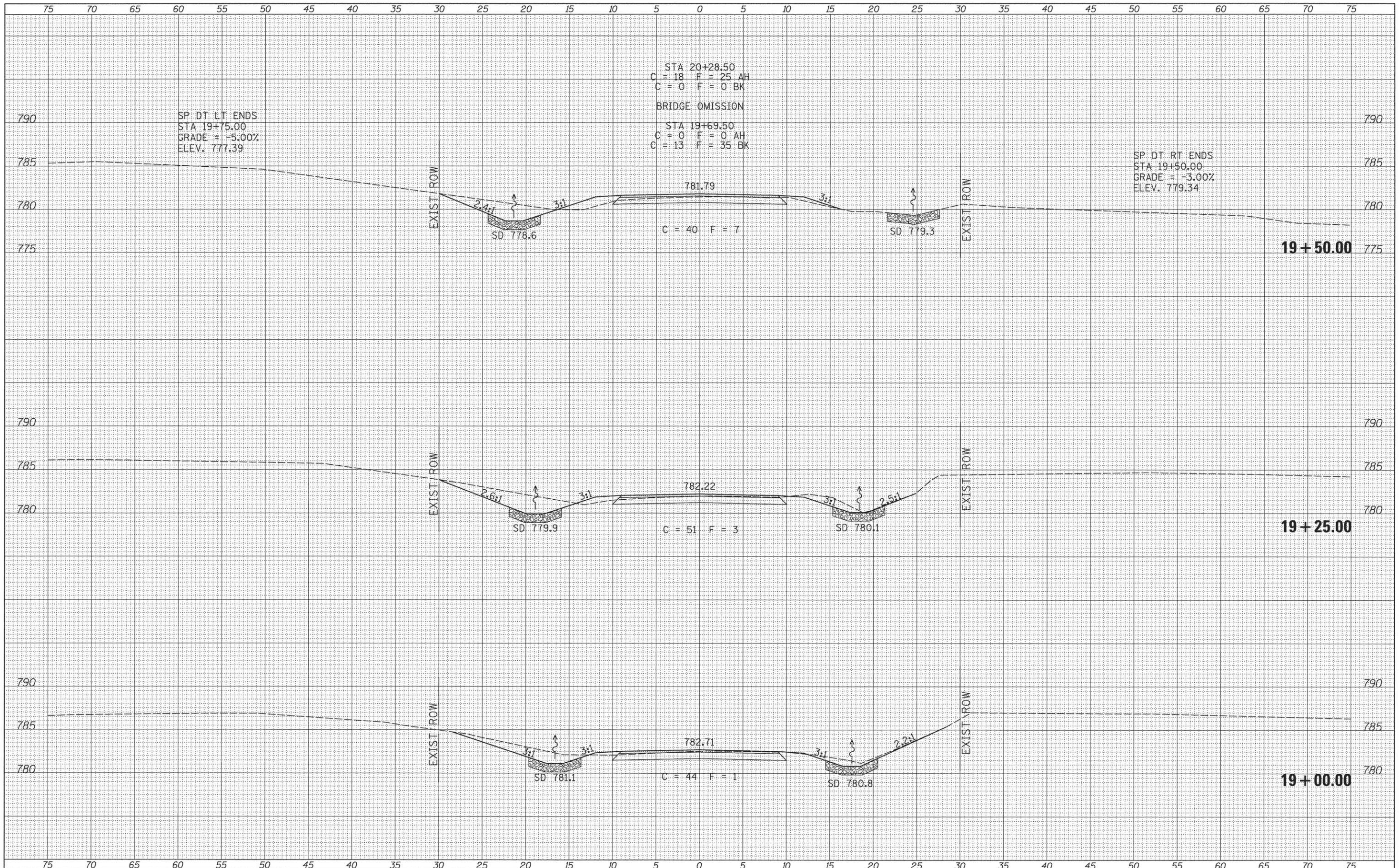
18+25.00

SEC 11-16116-00-BR
 BEGINS STA 18+50.00
 C = 24 F = 0 AH
 C = 0 F = 0 BK

FILE NAME =	USER NAME = JHutcheon	DESIGNED -	REVISED -	BUREAU COUNTY TOWNSHIP ROAD 154 OVER FOX CREEK	CROSS SECTIONS SCALE: 1"=5' SHEET 1 OF 4 SHEETS STA. 18+25.00 TO STA. 18+75.00	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
V:\Bridges\3517-Bureau\3517xshs.dgn		DRAWN -	REVISED -			TR 154	11-16116-00-BR	BUREAU	22	19	
#MODELNAME#		CHECKED -	REVISED -			CONTRACT NO. 87641					
		DATE -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011053					

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

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



SP DT LT ENDS
 STA 19+75.00
 GRADE = -5.00%
 ELEV. 777.39

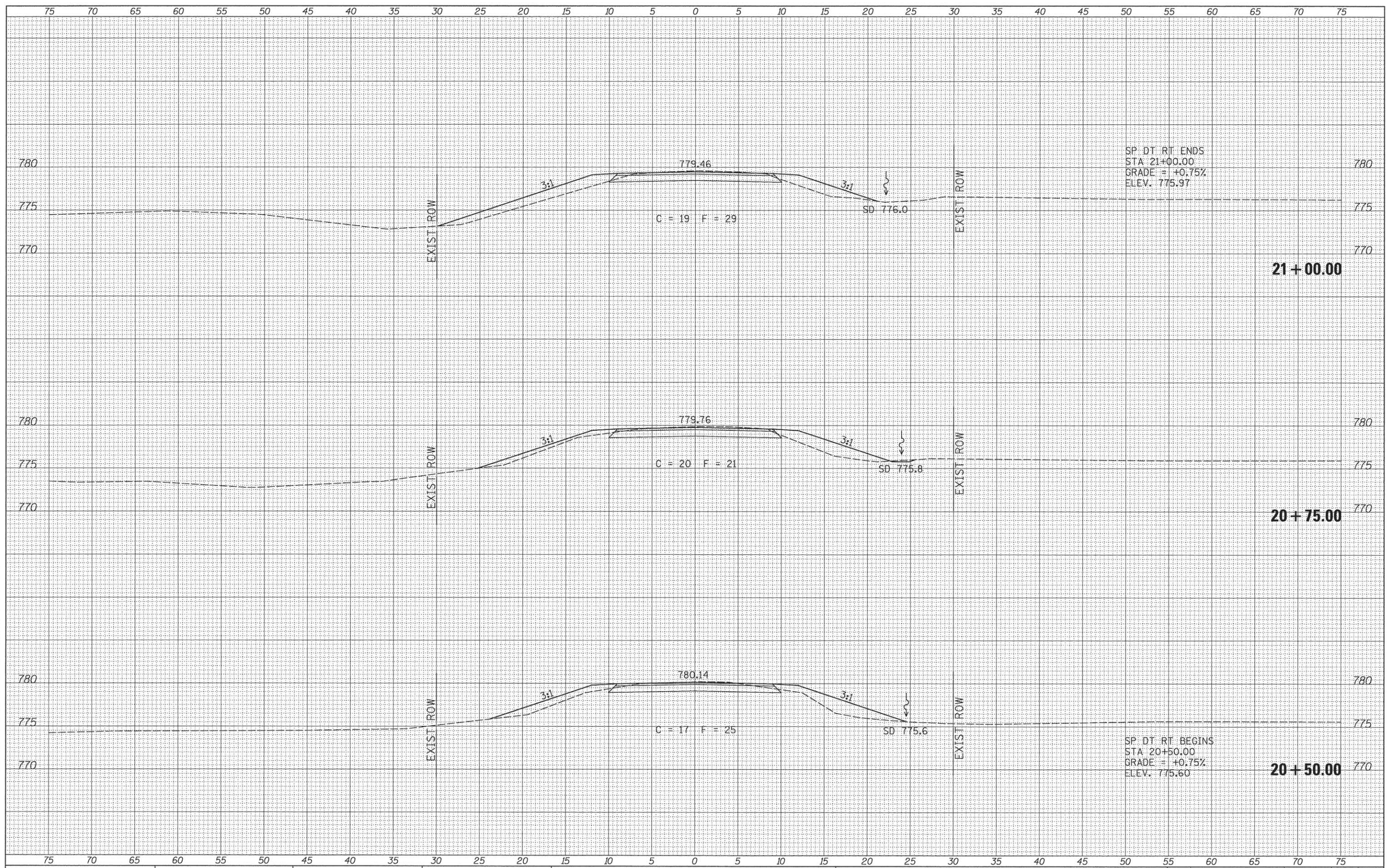
STA 20+28.50
 C = 18 F = 25 AH
 C = 0 F = 0 BK
 BRIDGE OMISSION
 STA 19+69.50
 C = 0 F = 0 AH
 C = 13 F = 35 BK

SP DT RT ENDS
 STA 19+50.00
 GRADE = -3.00%
 ELEV. 779.34

FILE NAME = V:\bridge\3517-Bureau\3517xshs.dgn	USER NAME = Jhutchison	DESIGNED -	REVISED -	BUREAU COUNTY TOWNSHIP ROAD 154 OVER FOX CREEK	CROSS SECTIONS SCALE: 1"=5' SHEET 2 OF 4 SHEETS STA. 19+00.00 TO STA. 19+50.00	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
MODELNAME	PLOT SCALE = 5,0000' / 1in.	DRAWN -	REVISED -			TR 154	11-16116-00-BR	BUREAU	22	20	
	PLOT DATE = 4/14/2016	CHECKED -	REVISED -			CONTRACT NO. 87641					
		DATE -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011053					

BY	DATE

BY	DATE



FILE NAME = V:\Bridges\3517-Bureau\3517xahs.dgn

USER NAME = JHutchison
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**BUREAU COUNTY
 TOWNSHIP ROAD 154
 OVER FOX CREEK**

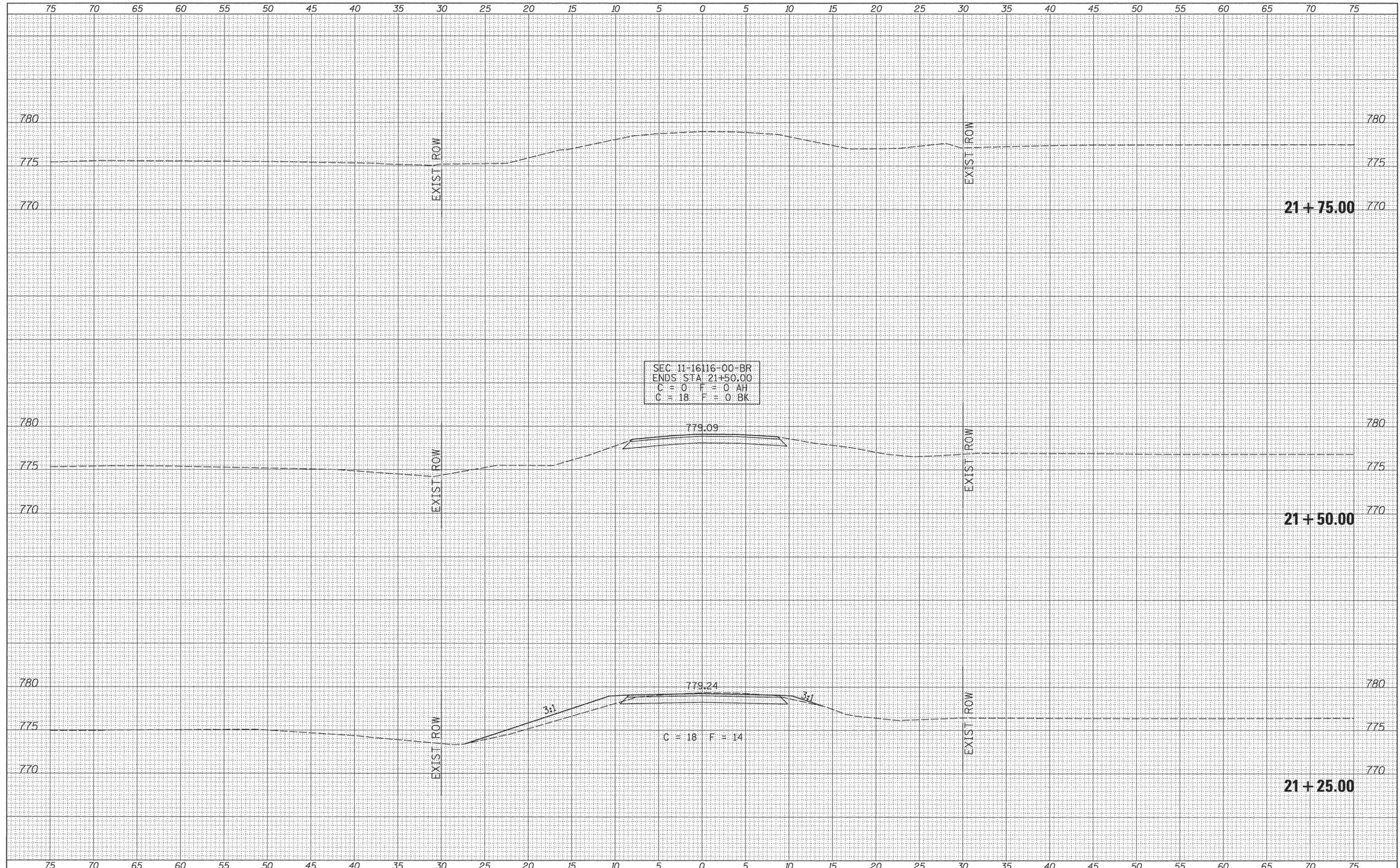
SCALE: 1"=5' SHEET 3 OF 4 SHEETS STA. 20+50.00 TO STA. 21+00.00

CROSS SECTIONS

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 154	11-16116-00-BR	BUREAU	22	21
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0011153		

MODELNAME@

PLOT SCALE = 5.00000' / 1" =
 PLOT DATE = 4/14/2016



DATE	
BY	
SURVEY	
NOTED	
PLATTED	
TEMPLE	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL	
SURVEY	
NOTED	
PLATTED	
TEMPLE	
AREAS	
CHECKED	

FILE NAME =
 V:\Bridge\3517-Bureau\3517.shts.dgn
 #MODELNAME#

USER NAME = JHutchison
 PLOT SCALE = 5.0000' / 1"
 PLOT DATE = 4/14/2016

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**BUREAU COUNTY
 TOWNSHIP ROAD 154
 OVER FOX CREEK**

CROSS SECTIONS

SCALE: 1"=5' SHEET 4 OF 4 SHEETS STA. 21+25.00 TO STA. 21+75.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 154	11-16116-00-BR	BUREAU	22	22
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-0011(153)	
CONTRACT NO. 87641				