

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED  
HIGHWAY BRIDGE PROGRAM

TR 254 OVER LITTLE CREEK  
SECTION 06-12121-00-BR  
FAYETTE COUNTY  
PROJECT NO. BROS-051(78)  
C-97-012-08

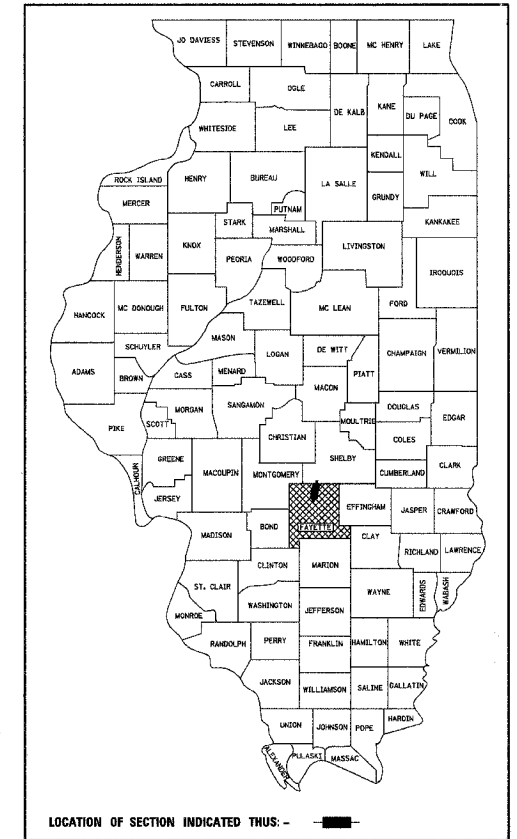
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	1
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT	
CONTRACT NO. 95531				

INDEX OF SHEETS

- COVER SHEET
- SUMMARY OF QUANTITIES AND TYPICAL SECTIONS
- PLAN AND PROFILE OF ROADWAY
- CROSS SECTIONS OF ROADWAY
- GENERAL PLAN AND ELEVATION
- 6.-7. PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
- STEEL RAILING, TYPE S1 DETAILS
- ABUTMENT DETAILS
- PIER DETAILS

STANDARDS ARE INCLUDED IN PLANS AFTER SHEET NO. 10  
000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
515001-02 NAME PLATE FOR BRIDGES  
635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT  
701901 TRAFFIC CONTROL DEVICES  
BLR 21-7 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SOIL BORINGS (SEE SPECIFICATIONS)



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

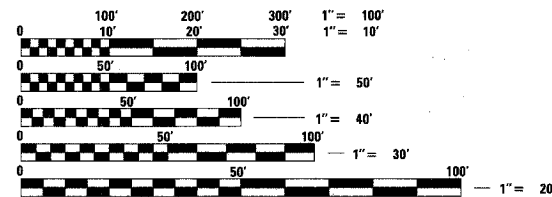
FAYETTE COUNTY  
HIGHWAY DEPARTMENT

APPROVED 11-2 . 20 07  
*Michael A. Maly*  
FAYETTE COUNTY, COUNTY ENGINEER

PASSED 11-7 . 20 07  
*Manner E. Kautz*  
DISTRICT SEVEN ENGINEER OF LOCAL ROADS, & STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW 11-7 . 20 07  
*Christie M. Reed*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

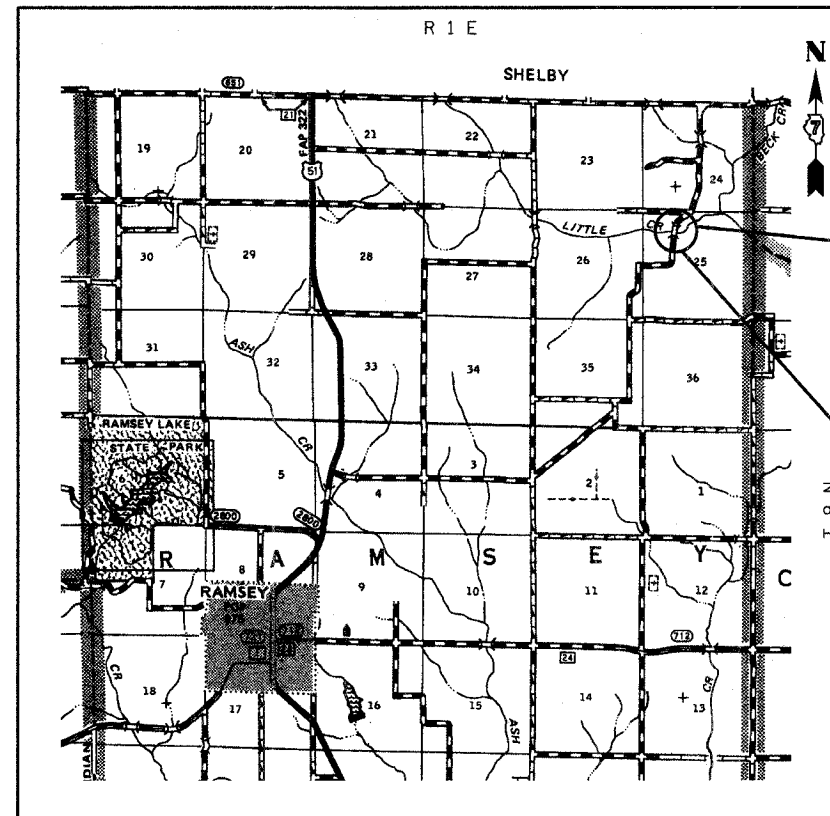
DESIGN CLASSIFICATION: RURAL LOCAL ROAD  
ADT<sub>2007</sub> : 50  
ADT<sub>2027</sub> : 75  
DESIGN SPEED - 30 MPH



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

J.U.L.I.E.  
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS  
1-800-892-0123 Website: <http://www.illinois1call.com>

CONTRACT NO. 95531



SECTION BEGINS  
STA. 9+23.67

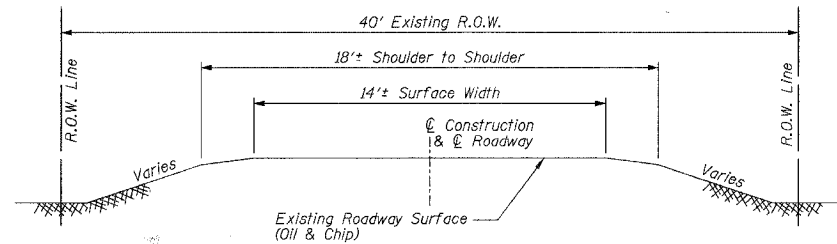
SECTION 06-12121-00-BR  
INCLUDES THE CONSTRUCTION OF A  
THREE SPAN PRECAST PRESTRESSED  
CONCRETE DECK BEAM BRIDGE CARRYING  
TR 254 OVER LITTLE CREEK,  
102'-8" BK TO BK ABUTMENTS,  
NO SKEW,  
EXISTING STRUCTURE NO. 026-3105  
PROPOSED STRUCTURE NO. 026-3436

SECTION ENDS  
STA. 10+76.33

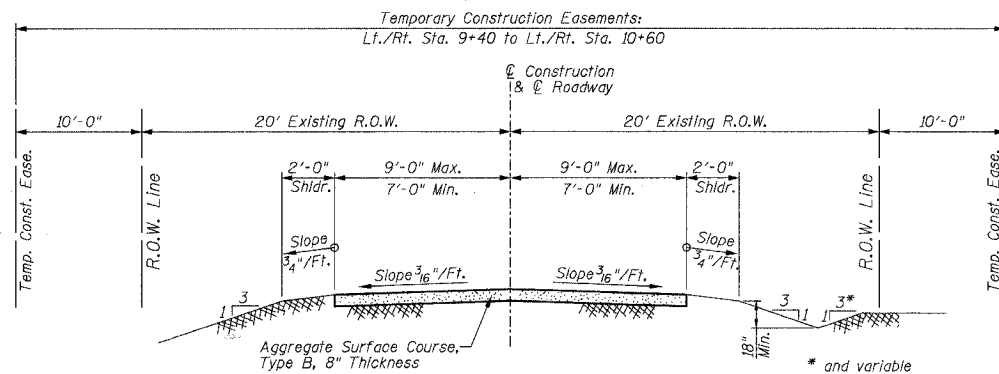
LOCATION: NEAR THE SW CORNER, NE 1/4, NW 1/4, SECTION 25, T9N, R1E, 3RD P.M.  
NET LENGTH OF PROJECT: 152.66 FT = 0.029 MI



*Gary L. Hahn* 10-31-07  
GARY L. HAHN  
CENTRALIA, ILLINOIS  
ILLINOIS LICENSED PROFESSIONAL  
ENGINEER NO. 62-42606  
EXPIRES NOV. 30, 2009



**TYPICAL SECTION  
EXISTING APPROACH ROADWAY**



**TYPICAL SECTION  
PROPOSED APPROACH ROADWAY**

Note: Proposed approach roadway tapers in 25'-0" transition from 18' max. width at end of proposed bridge to 14' width at existing approach roadway surface.

**SUMMARY OF QUANTITIES**

Code No.	Item	Unit	Quantity	Location	
				X080-2#	E000
20300100	CHANNEL EXCAVATION	CU YD	389	389	-
* 20700110	POROUS GRANULAR EMBANKMENT	TON	52	52	-
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2	-	0.2
* 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	220	220	-
* 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	42	-	42
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	-
50300225	CONCRETE STRUCTURES	CU YD	31.8	31.8	-
50300280	CONCRETE ENCASEMENT	CU YD	12.8	12.8	-
* 50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	2424	2424	-
50800105	REINFORCEMENT BARS	POUND	4480	4480	-
50900205	STEEL RAILING, TYPE S1	FOOT	206	206	-
51201600	FURNISHING STEEL PILES HP12X53	FOOT	975	975	-
51202305	DRIVING PILES	FOOT	975	975	-
** 51203600	TEST PILE STEEL HP12X53	EACH	1	1	-
51500100	NAME PLATES	EACH	1	1	-
67100100	MOBILIZATION	L SUM	1	1	-
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	-

\* See Special Provisions

\*\* The Contractor shall drive one (1) Steel HP12x53 Test Pile in a production pile location at the South Abutment as directed by the Engineer before ordering the remainder of the piles.

**GENERAL NOTES**

This section shall be constructed in accordance with the plans, the Special Provisions, and the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2007.

Any reference to a Standard in these plans shall be interpreted to mean the edition as indicated by the sub-number listed in the Index of Sheets or the copy of the Standard included in these plans.

Roadway Centerline profiles refer to the finished surface.

Existing utilities shown are located from surface observations or information provided by the respective utilities and must be considered approximate. There may be others, the exact location of which are unknown and not shown. The Contractor will be responsible for notifying the respective utilities before work is begun. Field marking of underground utilities may be obtained by providing a minimum of 48 hours advance notice through the J.U.L.I.E. system by calling 1-800-892-0123, or by direct contact with non-members of J.U.L.I.E.

The nominal thickness for surface course is shown on the Typical Sections, Standards, Schedules, or Special Details. The constructed thickness of the above item shall not be less than 90 percent of the nominal thickness at any location.

Factors used for quantity calculations are as follows:

Porous Granular Embankment	2.1 tons/cu. yd.
Stone Dumped Riprap	130 pounds/cu. ft.
Aggregate Surface Course	2.1 tons/cu. yd.

**UTILITIES**

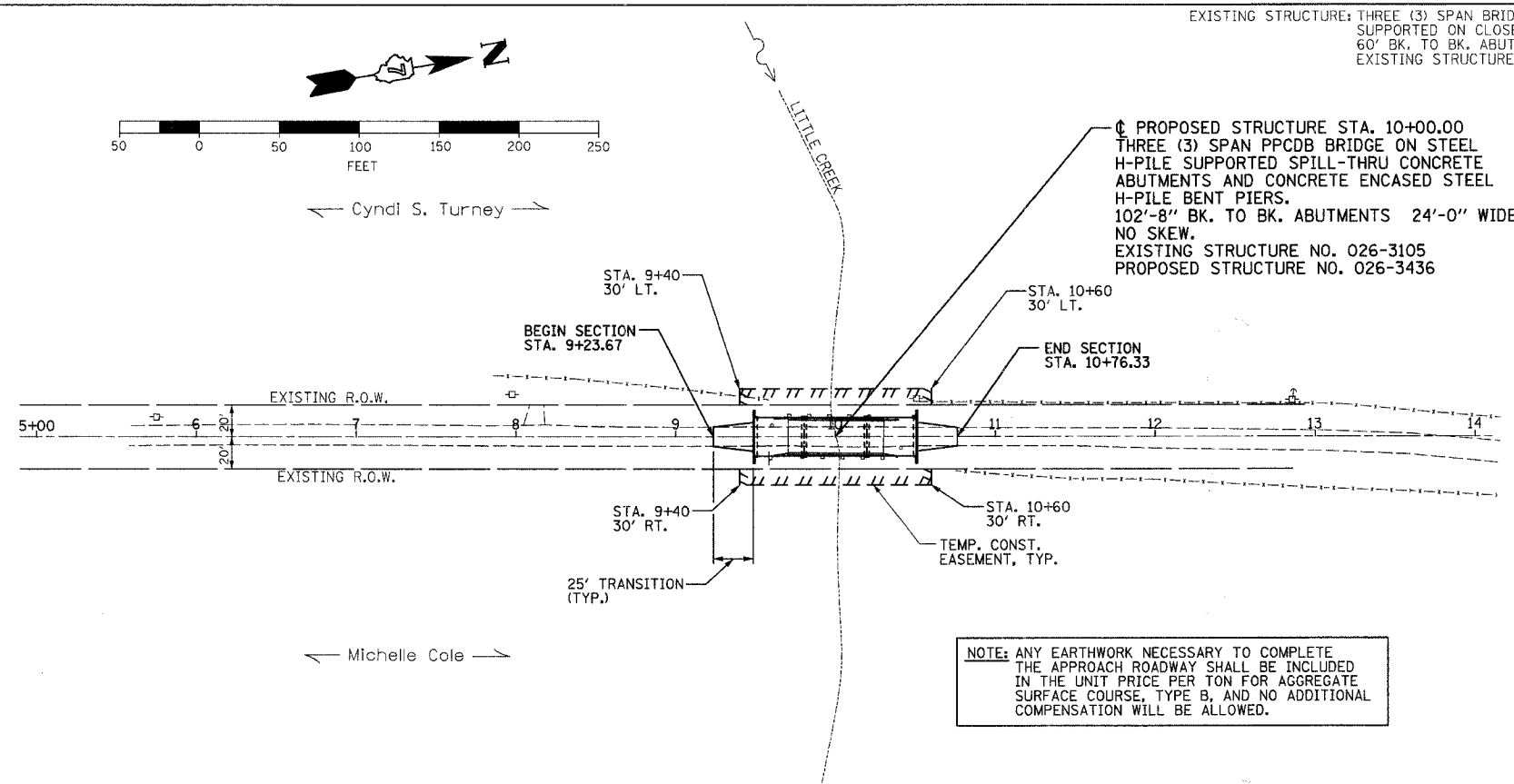
Telephone:  
Frontier Communications  
Rod Eller  
100 N. Park Avenue  
Hoyleton, IL 62803  
Phone: 618-493-7391

Electric:  
Southwestern Electric Cooperative, Inc.  
Greenville, IL  
Phone: 618-664-1025

**SUMMARY OF QUANTITIES AND  
TYPICAL SECTIONS  
PROPOSED BRIDGE OVER  
LITTLE CREEK  
TR 254  
SECTION 06-12121-00-BR  
FAYETTE COUNTY, ILLINOIS**

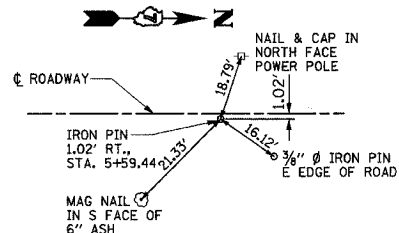
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	3
STA. 6+00.00 TO STA. 14+00.00				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

EXISTING STRUCTURE: THREE (3) SPAN BRIDGE WITH PRECAST CONCRETE BRIDGE SLABS SUPPORTED ON CLOSED TIMBER ABUTMENTS AND TIMBER PIERS. 60' BK. TO BK. ABUTMENTS, 22.5' OUT TO OUT OF DECK. EXISTING STRUCTURE NUMBER 026-3105.

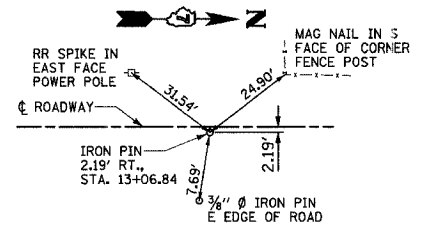


PROPOSED STRUCTURE STA. 10+00.00  
THREE (3) SPAN PPCDB BRIDGE ON STEEL H-PILE SUPPORTED SPILL-THRU CONCRETE ABUTMENTS AND CONCRETE ENCASED STEEL H-PILE BENT PIERS.  
102'-8" BK. TO BK. ABUTMENTS 24'-0" WIDE.  
NO SKEW.  
EXISTING STRUCTURE NO. 026-3105  
PROPOSED STRUCTURE NO. 026-3436

NOTE: ANY EARTHWORK NECESSARY TO COMPLETE THE APPROACH ROADWAY SHALL BE INCLUDED IN THE UNIT PRICE PER TON FOR AGGREGATE SURFACE COURSE, TYPE B, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



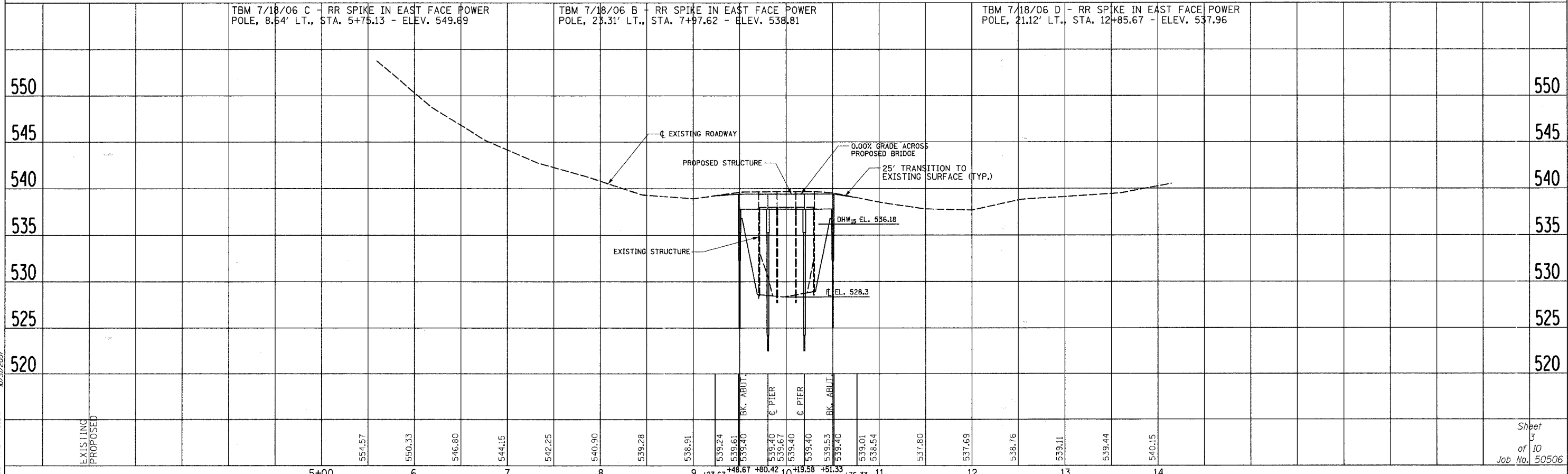
LINE TIES  
1.02' RT., STA. 5+59.44



LINE TIES  
2.19' RT., STA. 13+06.84

THE EXISTING RIGHT OF WAY SHOWN HEREON HAS BEEN PROTRACTED FROM EXISTING RECORDS AND IS TO BE USED FOR REFERENCE PURPOSES ONLY. FURTHERMORE, NO COMPLETE SURVEY OF SAID R.O.W. IS IMPLIED BY THIS DRAWING.

TBM 7/18/06 C - RR SPIKE IN EAST FACE POWER POLE, 8.64' LT., STA. 5+75.13 - ELEV. 549.69  
TBM 7/18/06 B - RR SPIKE IN EAST FACE POWER POLE, 23.31' LT., STA. 7+97.62 - ELEV. 538.81  
TBM 7/18/06 D - RR SPIKE IN EAST FACE POWER POLE, 21.12' LT., STA. 12+85.67 - ELEV. 537.96



PLAN	DATE
BY	
NO.	

PROFILE	DATE
BY	
NO.	

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PLOT SCALE = #SCALE#  
USER NAME = #USER#

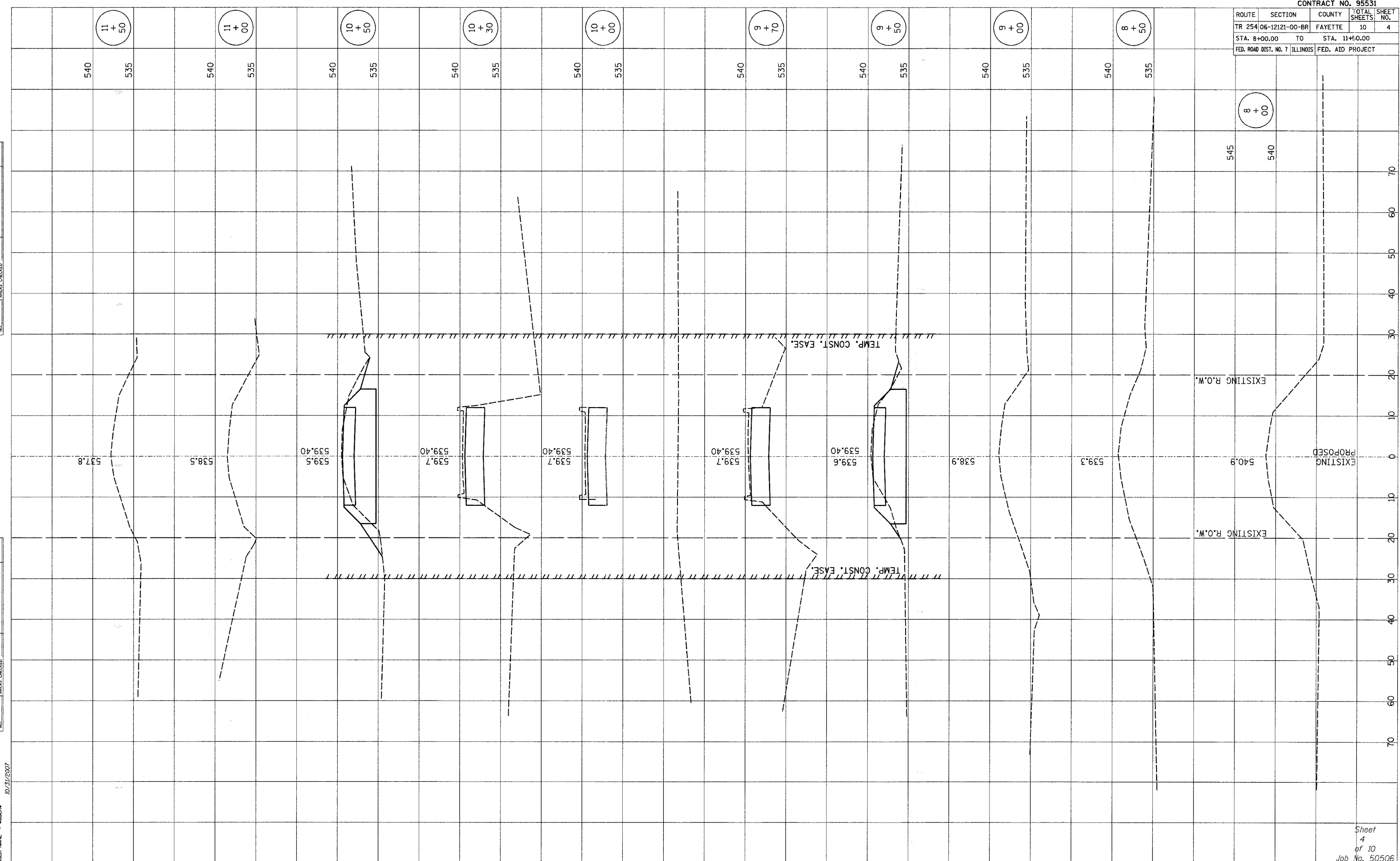
Sheet 3 of 10  
Job No. 50506

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	4
STA. 8+00.00 TO		STA. 11+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

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

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

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 PLOT SCALE = #SCALE\*  
 USER NAME = #USER\*



10/31/2007

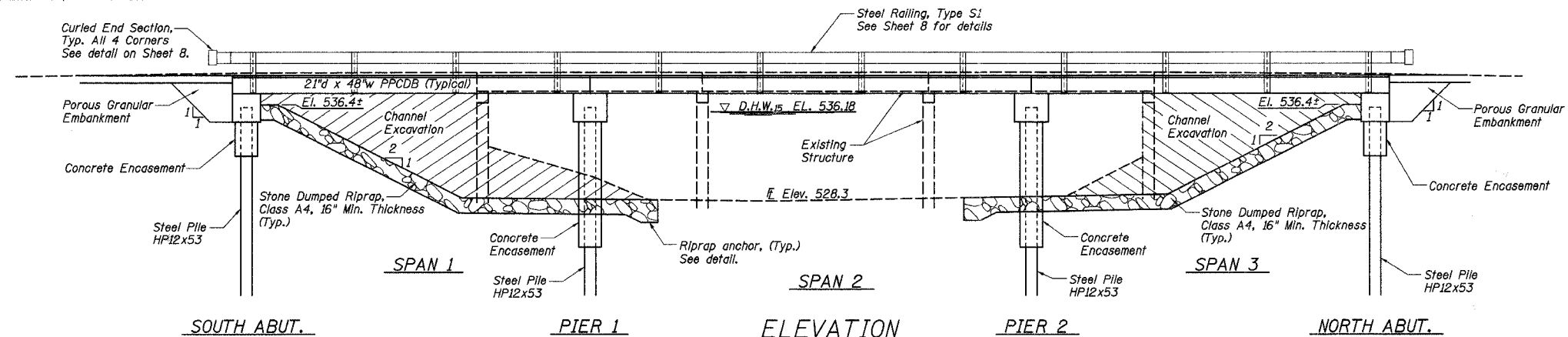
TBM 7/18/06 C - RR spike in east face power pole, 8.64' Lt., Sta. 5+75.13 - Elev. 549.69

TBM 7/18/06 B - RR spike in east face power pole, 23.31' Lt., Sta. 7+97.62 - Elev. 538.81

TBM 7/18/06 D - RR spike in east face power pole, 21.12' Lt., Sta. 12+85.67 - Elev. 537.96

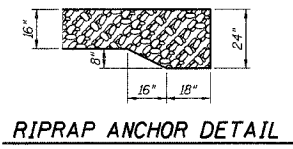
Existing Structure: Three (3) span bridge with precast concrete bridge slabs supported on closed timber abutments and timber piers. 60' bk. to bk. abutments, 22.5' out to out of deck. Existing Structure Number 026-3105.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	5
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT	
CONTRACT NO. 95531				



### BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	SUB	SUPER	TOTAL
CHANNEL EXCAVATION	CU YD	389	-	389
POROUS GRANULAR EMBANKMENT	TON	52	-	52
STONE DUMPED RIPRAP, CLASS A4	TON	220	-	220
REMOVAL OF EXISTING STRUCTURES	EACH	-	-	1
CONCRETE STRUCTURES	CU YD	31.8	-	31.8
CONCRETE ENCASEMENT	CU YD	12.8	-	12.8
PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	-	2424	2424
REINFORCEMENT BARS	POUND	4480	-	4480
STEEL RAILING, TYPE S1	FOOT	-	206	206
FURNISHING STEEL PILES HP 12x53	FOOT	975	-	975
DRIVING PILES	FOOT	975	-	975
TEST PILE STEEL HP 12x53	EACH	1	-	1
NAME PLATES	EACH	1	-	1
TERMINAL MARKER - DIRECT APPLIED	EACH	-	4	4



### GENERAL NOTES

See Section 502 of the Standard Specifications for Structural Excavation.

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

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

See Specifications for Soil Borings.

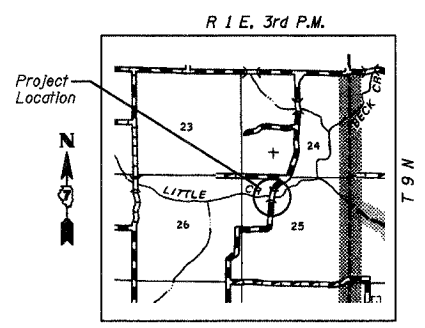
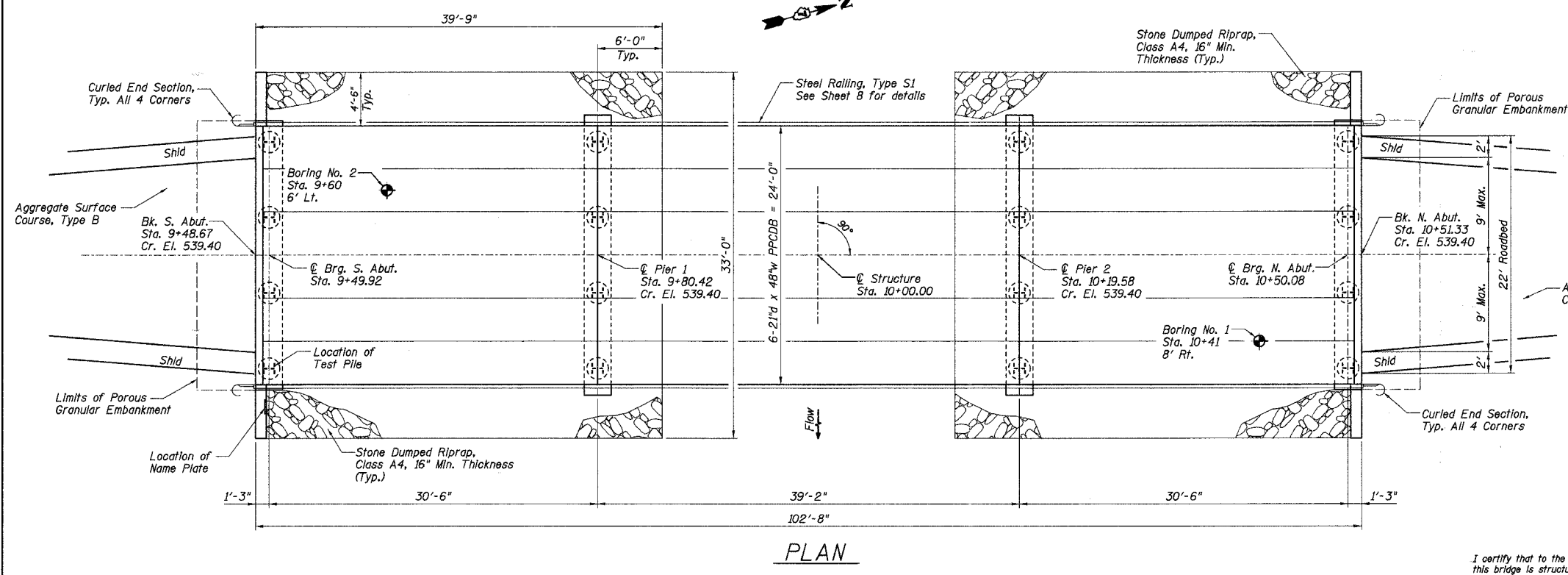
Do not scale these drawings.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive one (1) Steel HP12x53 Test Pile in a permanent location at the South Abutment as directed by the Engineer before ordering the remainder of the piles.

**LITTLE CREEK**  
 BUILT 200 BY FAYETTE COUNTY  
 TR 254  
 SEC. 06-12121-00-BR  
 PROJECT NO. BROS-051(78)  
 STRUCTURE NO. 026-3436  
 LOADING HS 20

**NAME PLATE**  
 (See State Standard 515001 for details)



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



GARY L. HAHN  
 81-4853  
 LICENSED STRUCTURAL ENGINEER  
 ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 81-4853  
 EXPIRES NOV. 30, 2008

### WATERWAY DATA

Drainage Area = 12.95 Sq. Mi. Low Grade Elev. 537.7 @ Sta. 12+00									
Flood	Freq. Yr.	Q C.F.S.	Opening	Sq. Ft.	Natural	Head - Ft.	Headwater	Headwater	Headwater
Design	15	2770	381	553	536.18	0.98	0.32	537.16	536.50
Base	100	4498	416	607	536.80	2.52	0.96	539.32	537.76
Max. Calc.	500	5929	440	647	537.23	2.70	1.98	539.93	539.21

### SEISMIC DESIGN

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.08g  
 Site Coefficient (S) = 1.0

### DESIGN SPECIFICATIONS

AASHTO - 2002 17th Edition

### LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface.

### DESIGN STRESSES

FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi

### PRECAST PRESTRESSED UNITS

$f'_c = 5,000$  psi  
 $f'_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi ( $\frac{1}{2}$ " strands)  
 $f'_{si} = 189,000$  psi ( $\frac{1}{2}$ " strands)

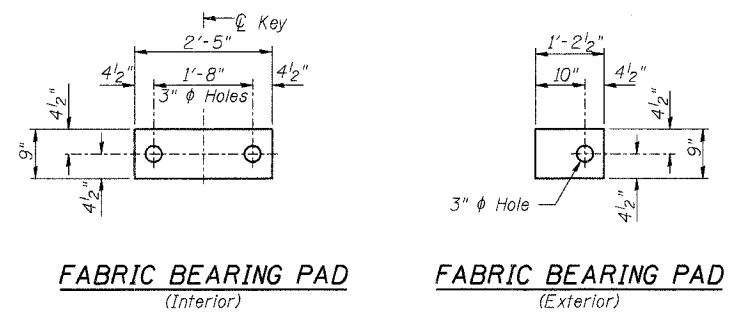
### GRADE ON STRUCTURE

Bk. South Abutment Sta. 9+48.67 Cr. El. 539.40	0.00%	0.00%	0.00%
Span 1	Span 2	Span 3	

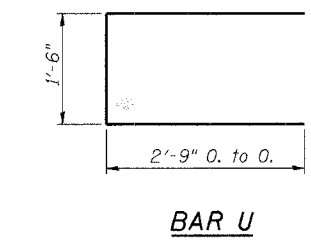
### GENERAL PLAN AND ELEVATION PROPOSED BRIDGE OVER LITTLE CREEK

TR 254  
 SECTION 06-12121-00-BR  
 FAYETTE COUNTY, ILLINOIS

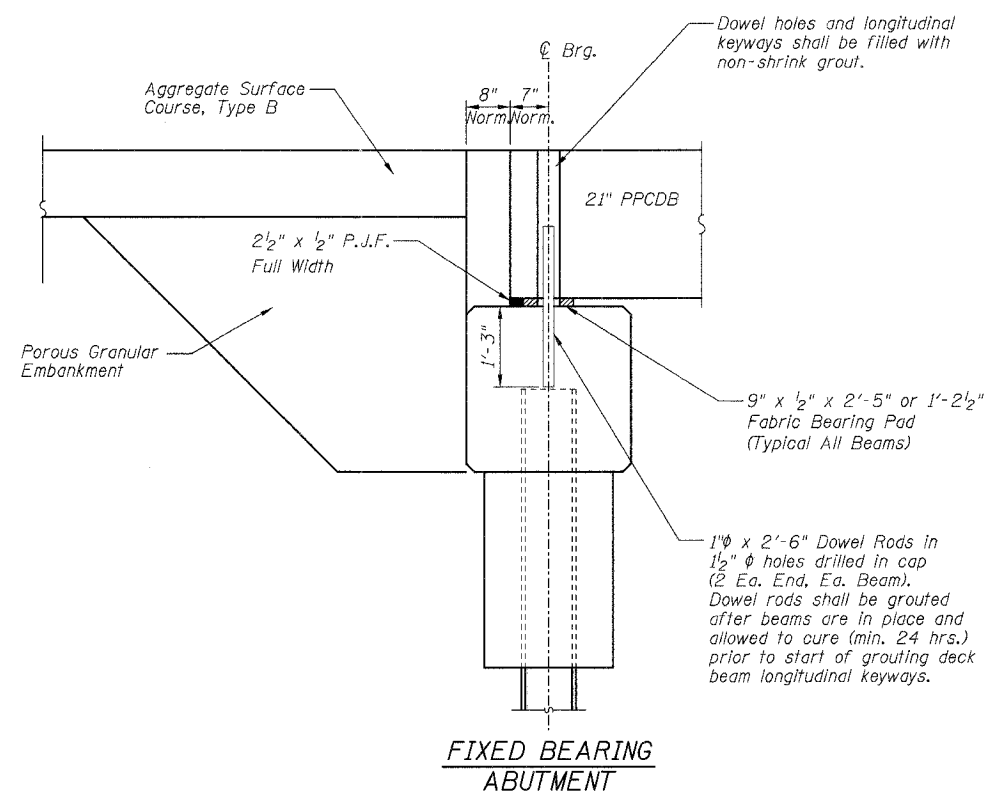
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	6
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT	
CONTRACT NO. 95531				



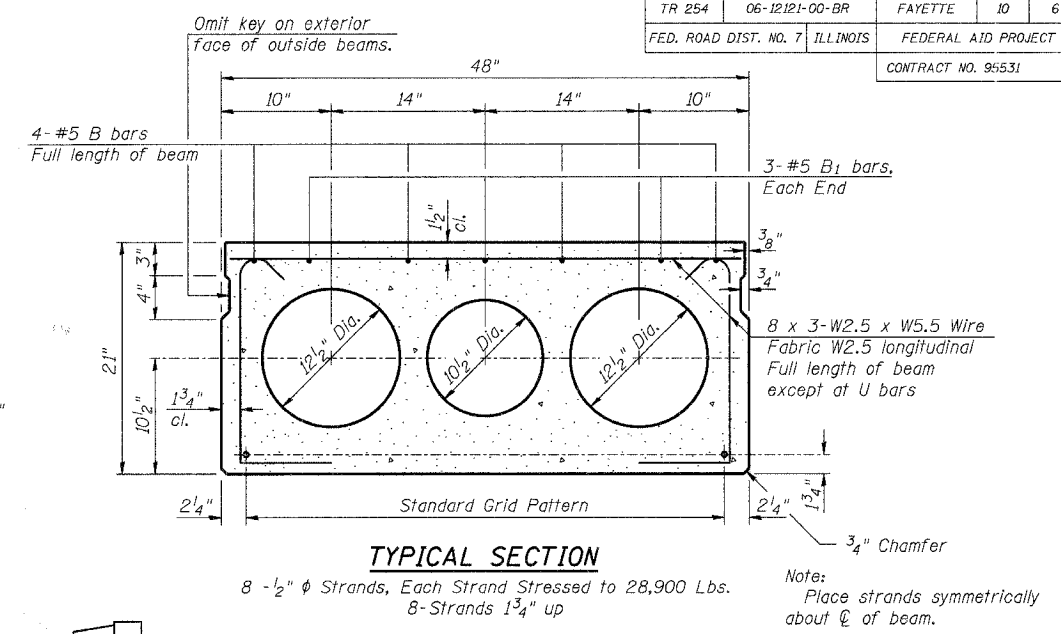
**FABRIC BEARING PAD (Interior)**  
**FABRIC BEARING PAD (Exterior)**



**BAR U**

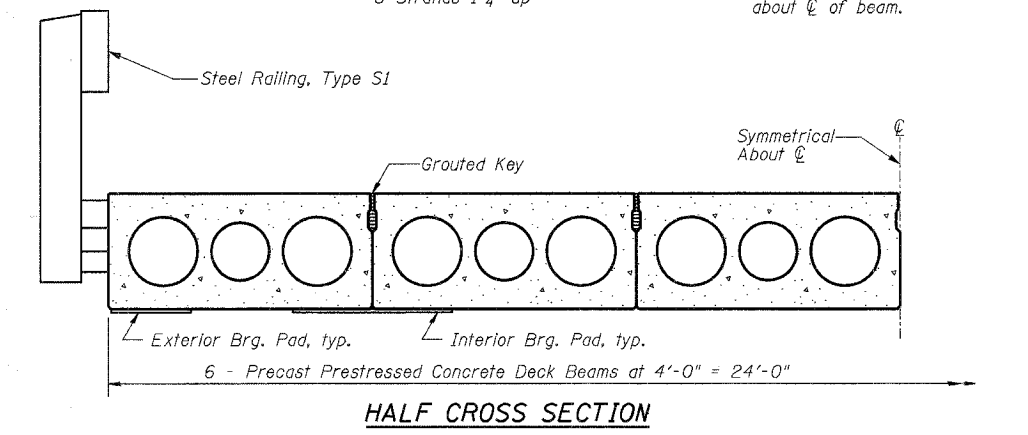


**FIXED BEARING ABUTMENT**



**TYPICAL SECTION**

8 - 1/2"  $\phi$  Strands, Each Strand Stressed to 28,900 Lbs. 8-Strands 1 3/4" up  
Note: Place strands symmetrically about  $\phi$  of beam.



**HALF CROSS SECTION**

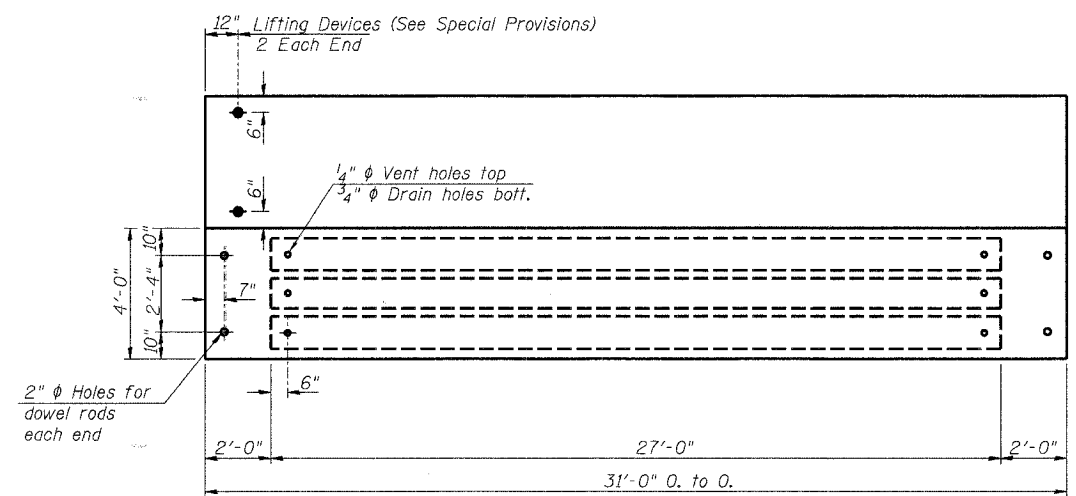
**BILL OF MATERIAL FOR ONE BEAM**

Bar	No.	Size	Length	Shape
B	4	#5	30'-8"	—
B1	6	#5	6'-3"	—
U	16	#4	7'-0"	U
Precast Prestressed Conc. Deck Bms.		Sq. Ft.	124	
Reinforcement Bars		Pound	240	
Total Weight Each Beam		Pound	23240	

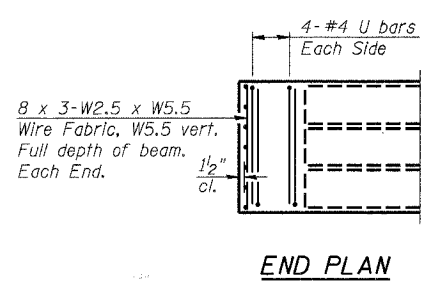
**SPAN 1 OR 3**

**PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS**  
**PROPOSED BRIDGE OVER LITTLE CREEK**  
**TR 254**  
**SECTION 06-12121-00-BR**  
**FAYETTE COUNTY, ILLINOIS**

Sheet 6 of 10  
Job No. 50506



**PLAN**



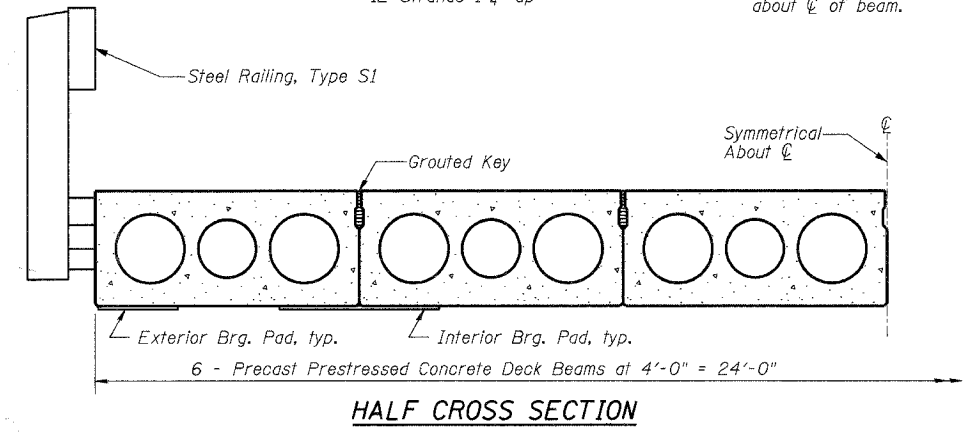
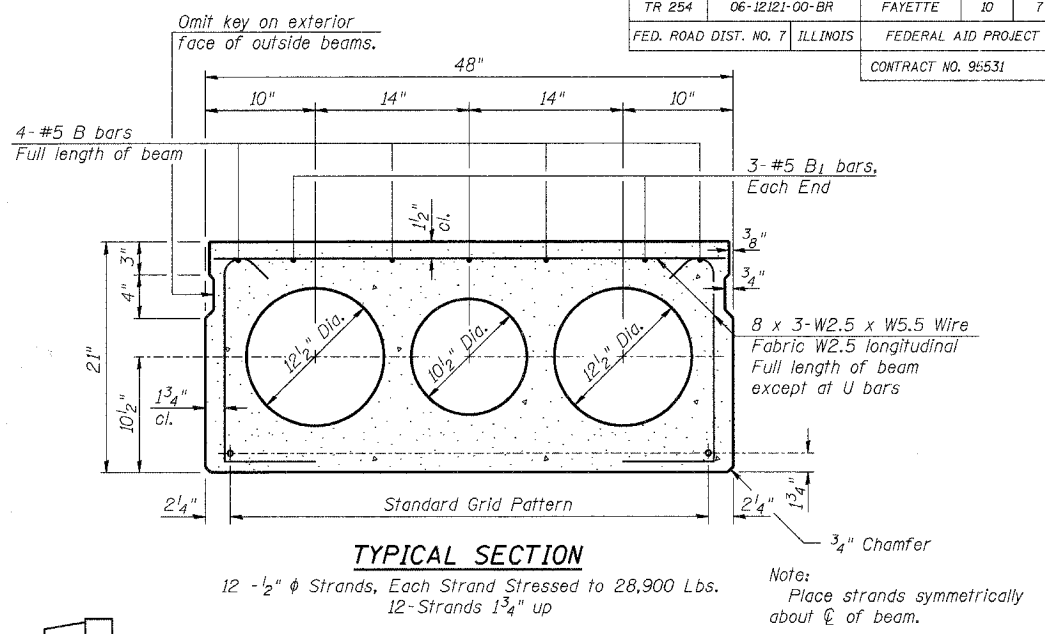
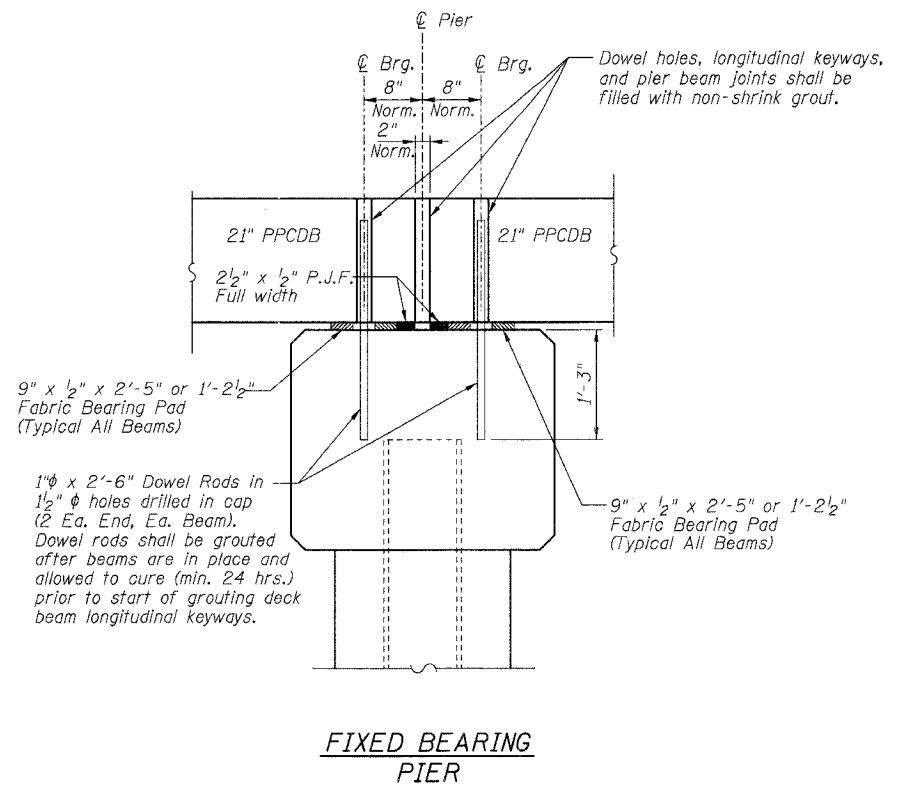
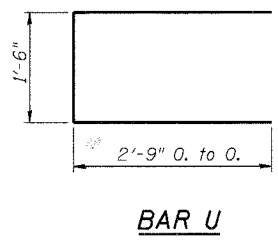
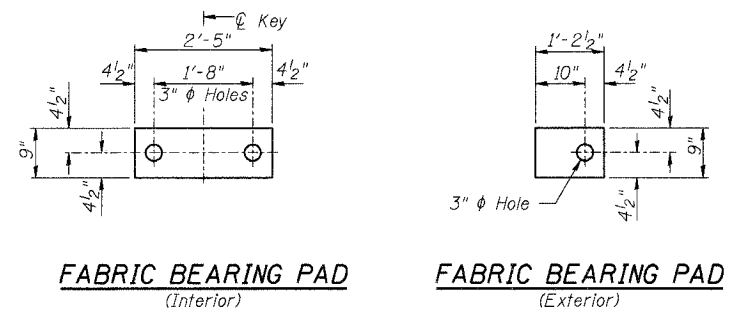
**END PLAN**

**NOTES**

Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. See Special Provisions for lifting devices. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Non prestressing steel shall conform to ASTM A706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'ci, shall be 4000 p.s.i. An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted. However, all strands shall be stressed to a maximum of 28,900 pounds per strand.

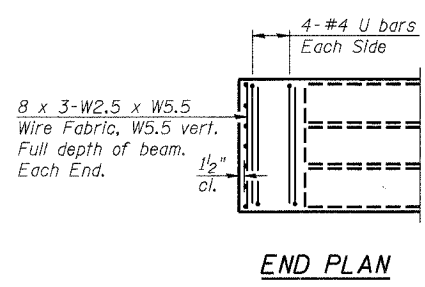
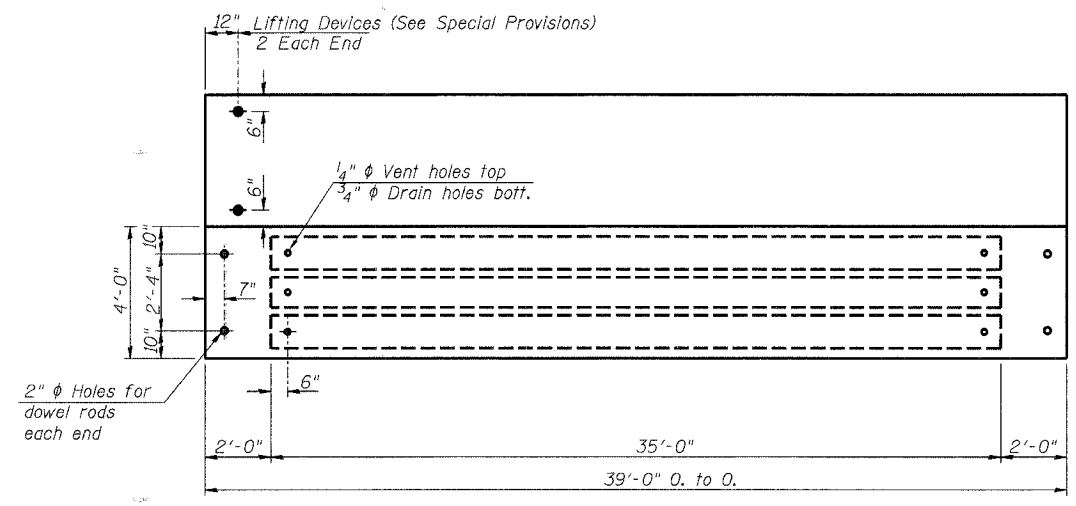
10/31/2007

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	7
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT	
CONTRACT NO. 95531				



**BILL OF MATERIAL FOR ONE BEAM**

Bar	No.	Size	Length	Shape
B	4	#5	38'-8"	—
B1	6	#5	8'-0"	—
U	16	#4	7'-0"	□
Precast Prestressed Conc. Deck Bms.			Sq. Ft.	156
Reinforcement Bars			Pound	290
Total Weight Each Beam			Pound	28900



**NOTES**

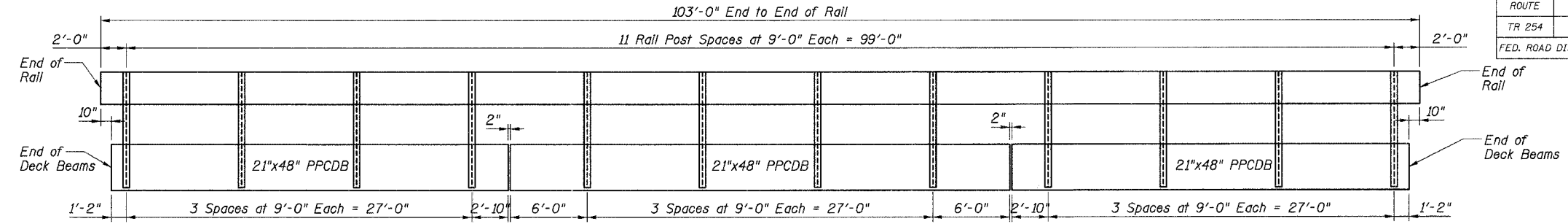
Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. See Special Provisions for lifting devices. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Non prestressing steel shall conform to ASTM A706 (1L MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'ci, shall be 4000 p.s.i. An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted. However, all strands shall be stressed to a maximum of 28,900 pounds per strand.

**SPAN 2**

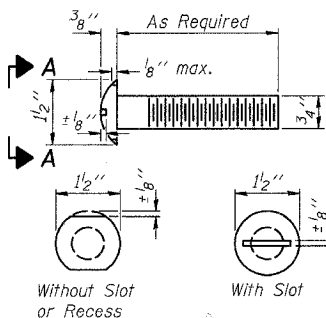
**PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS**  
 PROPOSED BRIDGE OVER LITTLE CREEK  
 TR 254  
 SECTION 06-12121-00-BR  
 FAYETTE COUNTY, ILLINOIS

10/31/2007

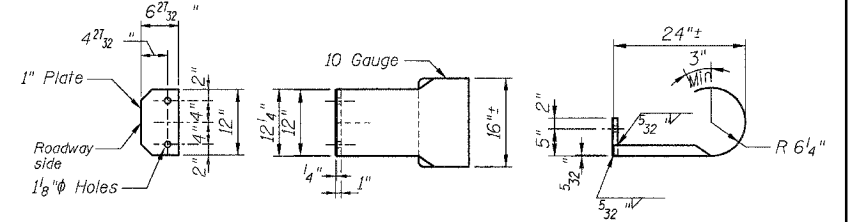
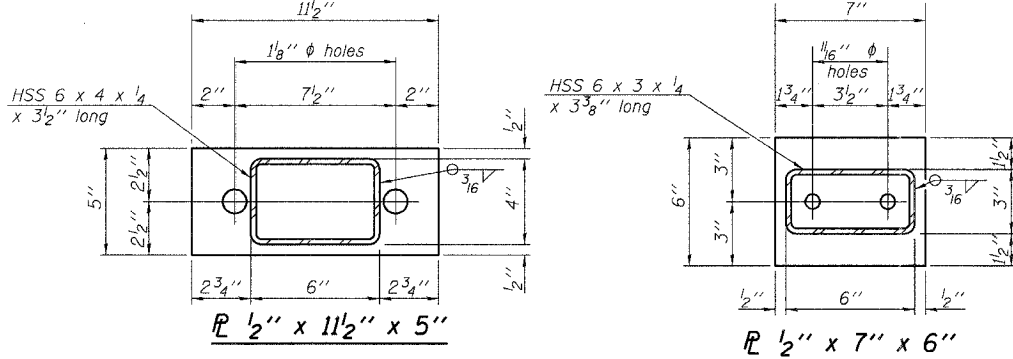
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 95531				



**ELEVATION**



**VIEW A-A ROUND HEAD BOLT**

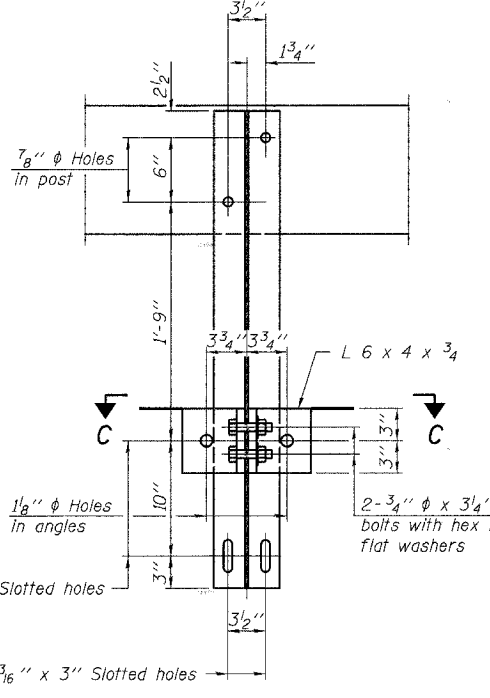


**CURLED END SECTION DETAILS**

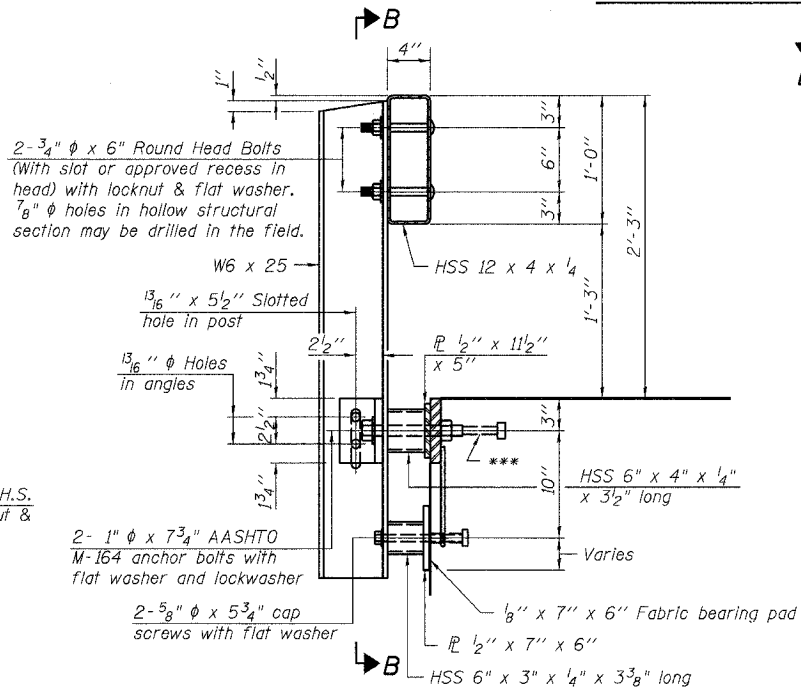
The cost of the Curled End Section shall be included in the cost of the "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

**Notes:**

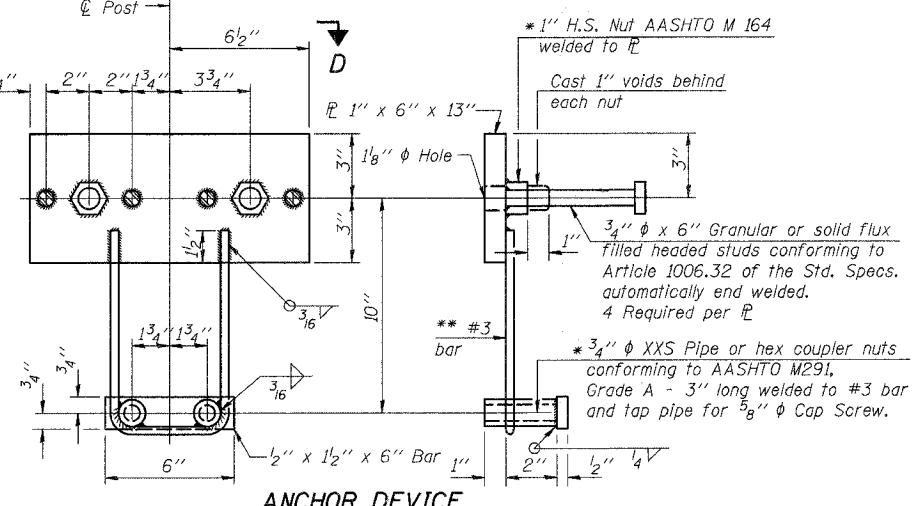
All field drilled holes shall be coated with an approved zinc rich paint before erection. For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S1. All steel rail elements shall be galvanized 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**

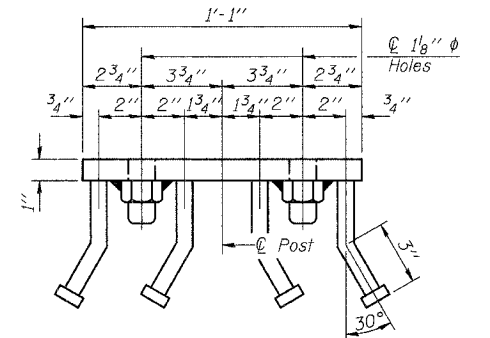


**SECTION AT RAILING POST**

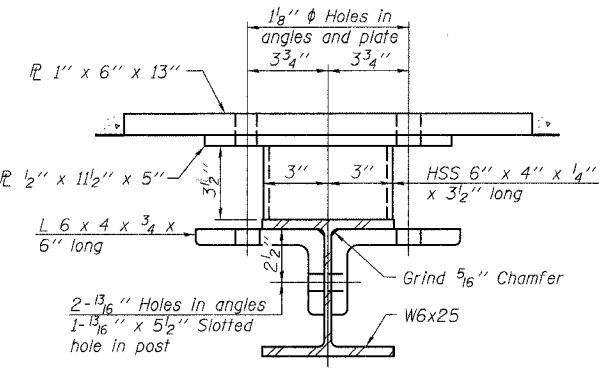


**ANCHOR DEVICE**

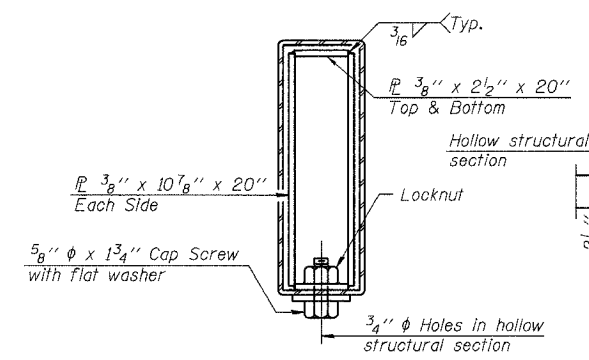
\* Threaded areas shall be plugged or blocked off during casting of beam. \*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



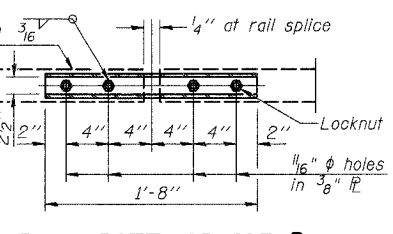
**VIEW D-D**



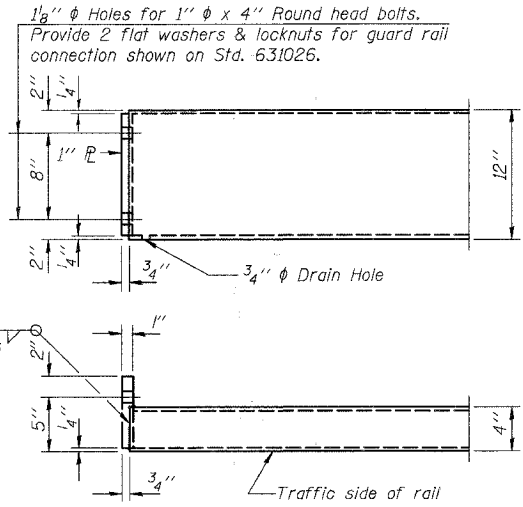
**SECTION C-C**



**SECTIONS AT RAIL SPLICE**



**PLAN-BOTT. SPLICE TYPICAL**



**END OF RAIL DETAILS**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S1	Foot	206

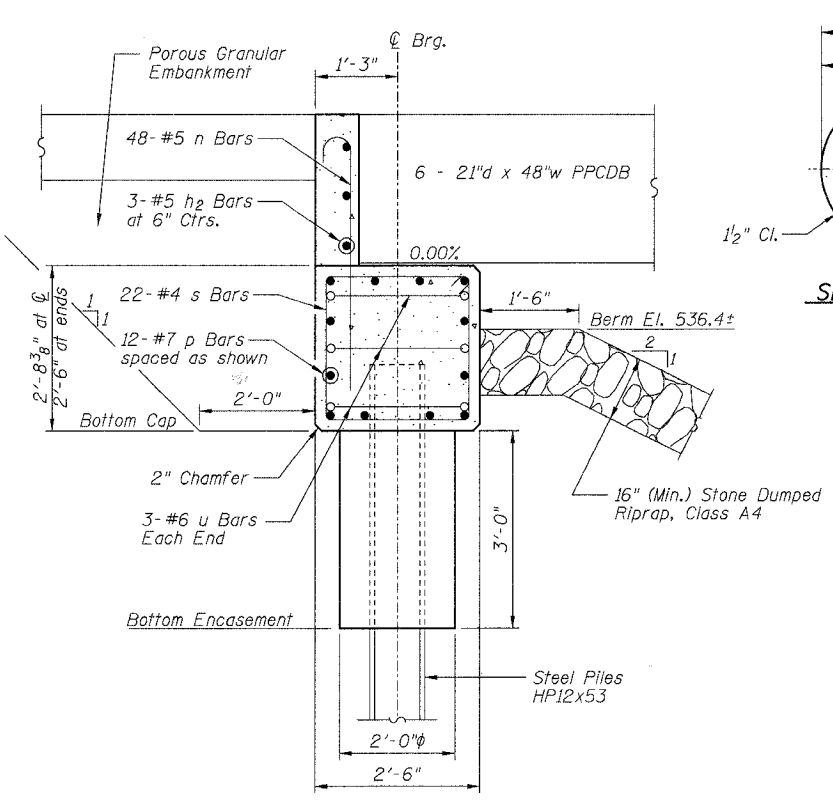
**STEEL RAILING, TYPE S1 DETAILS**

PROPOSED BRIDGE OVER LITTLE CREEK TR 254 SECTION 06-12121-00-BR FAYETTE COUNTY, ILLINOIS

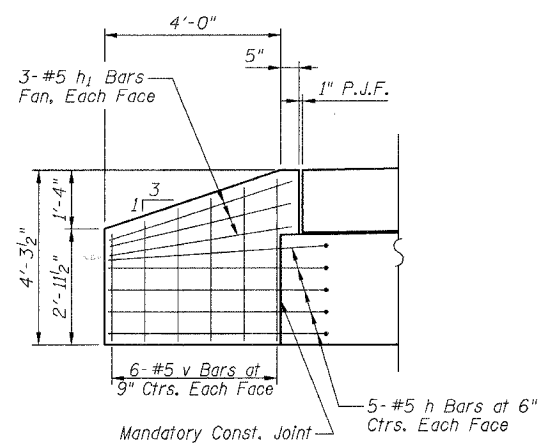
10/31/2007



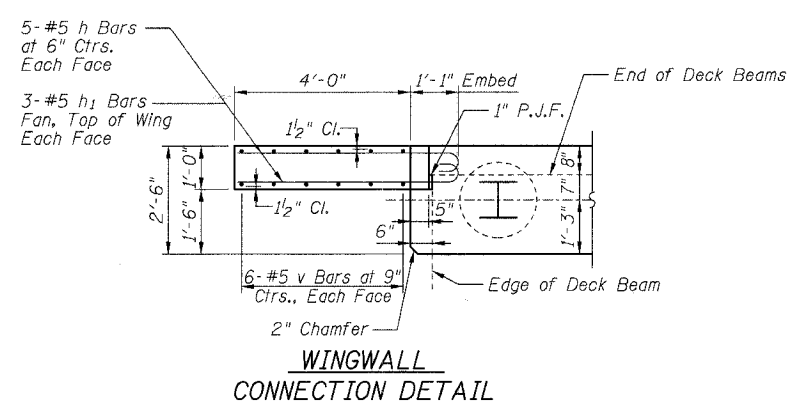
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 254	06-12121-00-BR	FAYETTE	10	9
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		
CONTRACT NO. 95531				



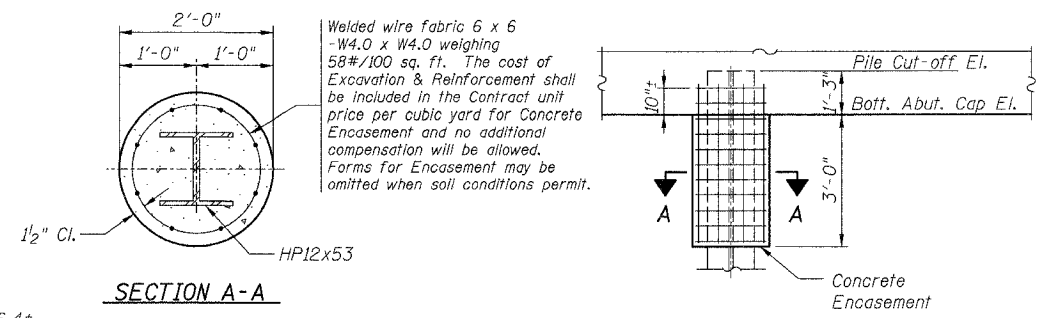
**SECTION THRU ABUTMENT**



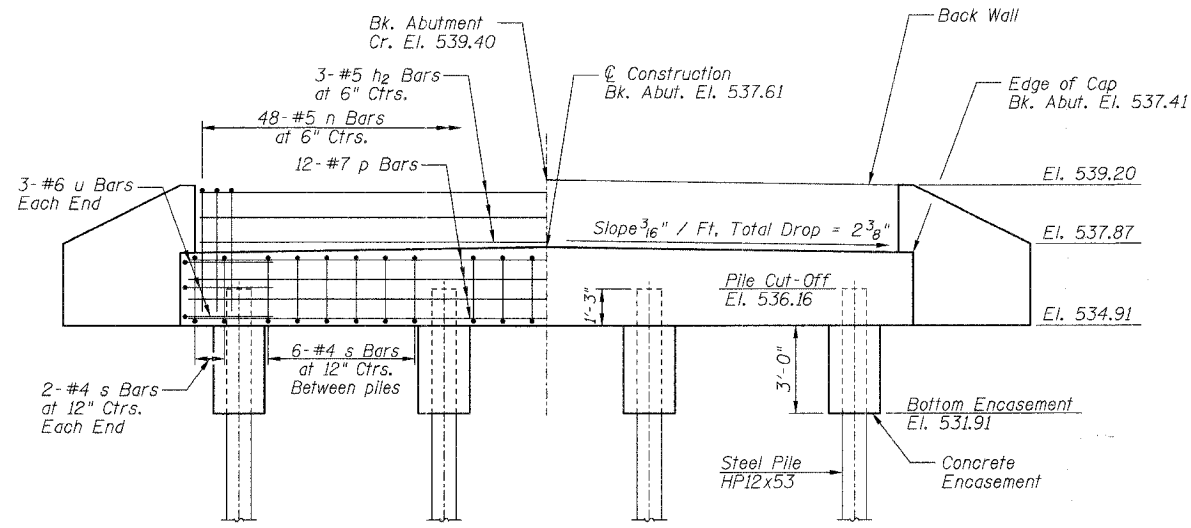
**ELEVATION OF WINGWALL**



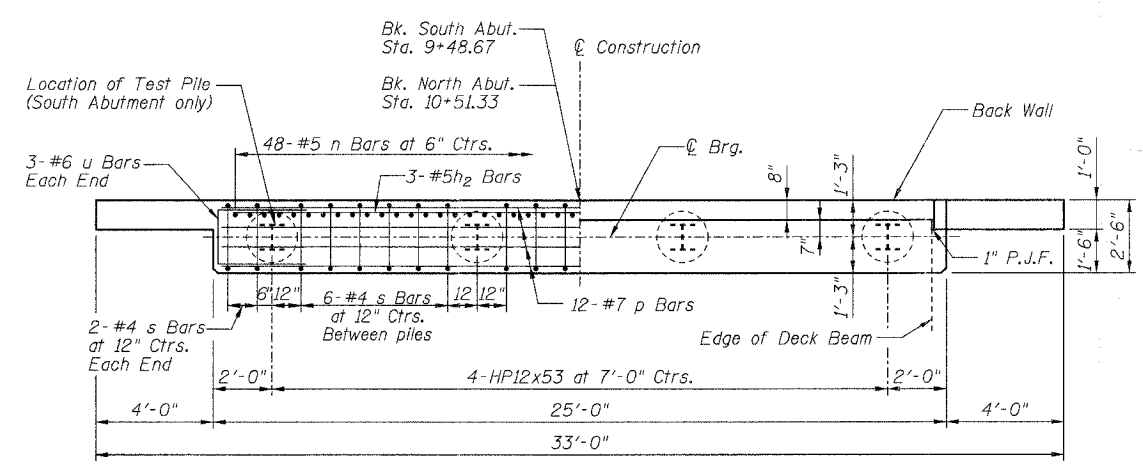
**WINGWALL CONNECTION DETAIL**



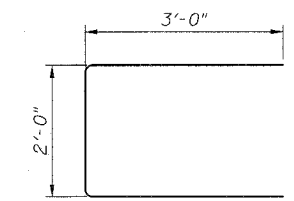
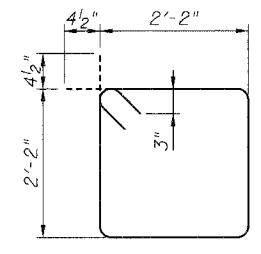
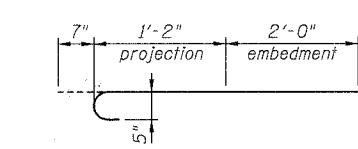
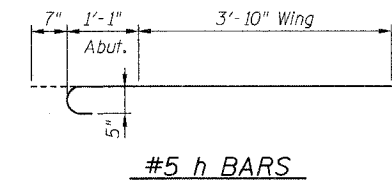
**SECTION A-A PILE ENCASEMENT DETAIL**



**ELEVATION**



**PLAN**



**BILL OF MATERIALS**  
**ONE ABUTMENT w/ WINGWALLS**

Bar	No.	Size	Length	Shape
h	20	#5	5'-6"	
h1	12	#5	4'-6"	
h2	3	#5	23'-8"	
n	48	#5	3'-9"	
p	12	#7	24'-8"	
s	22	#4	9'-5"	
u	6	#6	8'-0"	
v	24	#5	4'-0"	CUT IN FIELD
Concrete Structures			Cu Yd	8.3
Concrete Encasement			Cu Yd	1.4
Reinforcement Bars			Pound	1340

**PILE DATA**

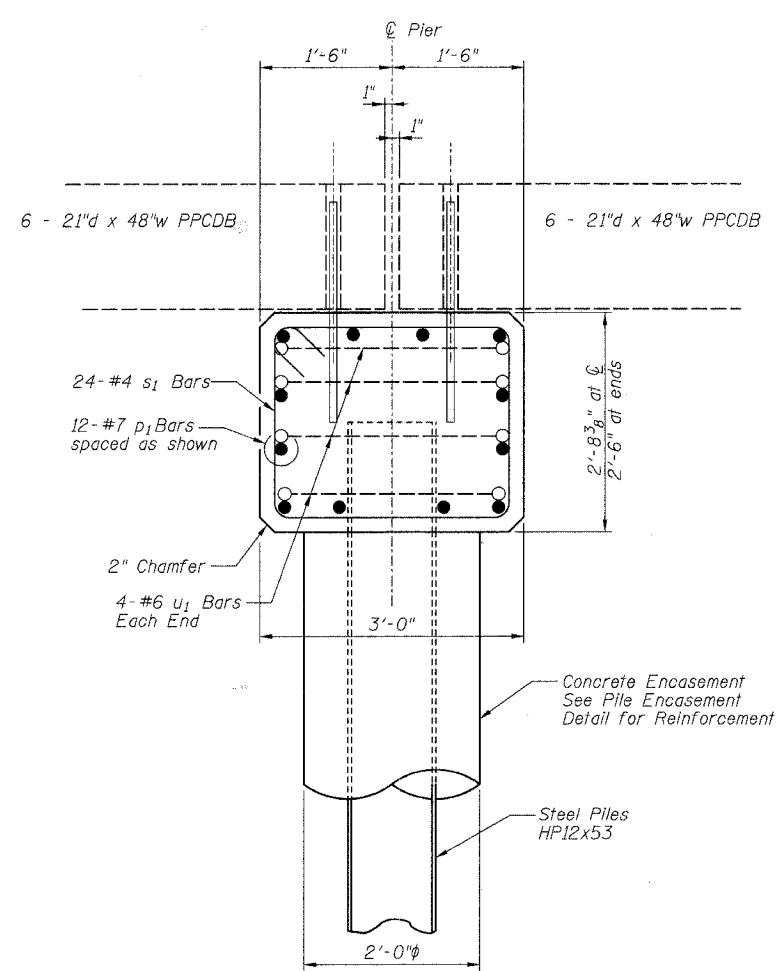
Type and Size: Steel HP12x53  
 Nominal Required Bearing: 419 kips  
 Allowable Resistance Available: 139 kips  
 Estimated Length:  
 South Abutment: 65 Foot  
 North Abutment: 65 Foot  
 Number of Production Piles:  
 South Abutment: 3 Each  
 North Abutment: 4 Each  
 Number of Test Piles:  
 South Abutment: 1 Each  
 North Abutment: None

**GENERAL NOTES**

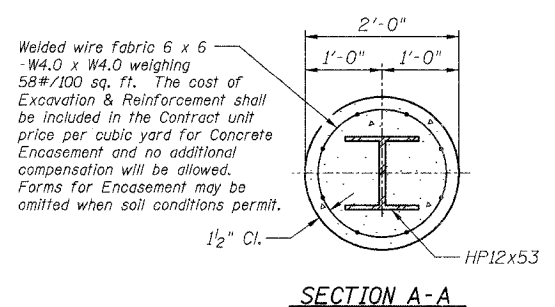
All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.  
 All clearances between rebar and form surface shall be 2", unless otherwise noted.  
 Space reinforcement in cap to miss PPCDB dowel rods.  
 The Steel H-piles shall be according to AASHTO M270 Grade 50.

**ABUTMENT DETAILS**  
**PROPOSED BRIDGE OVER**  
**LITTLE CREEK**  
 TR 254  
 SECTION 06-12121-00-BR  
 FAYETTE COUNTY, ILLINOIS

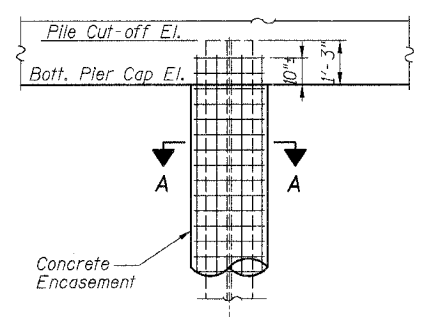
10/31/2007



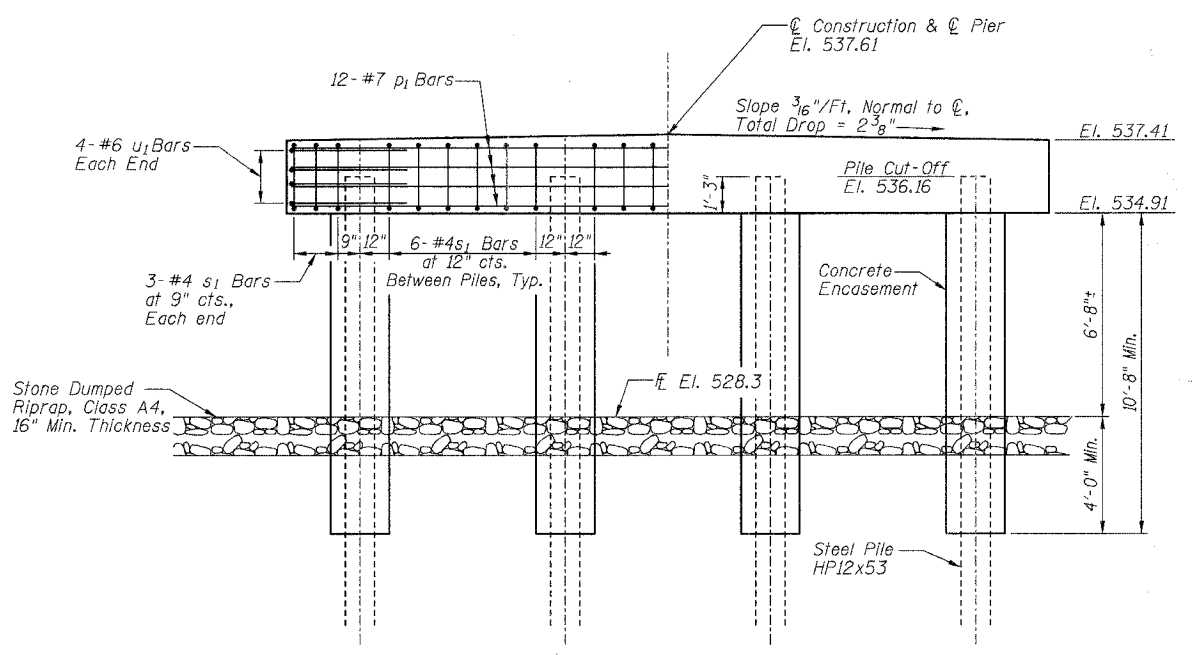
**SECTION THRU PIER**



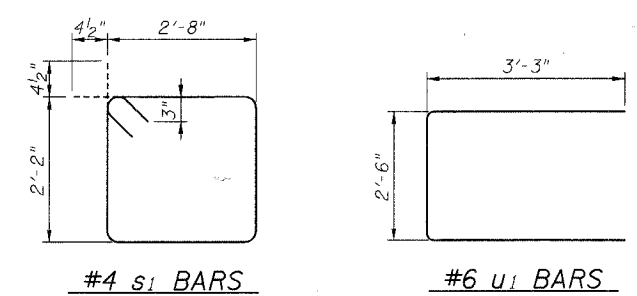
**SECTION A-A**



**PILE ENCASEMENT DETAIL**

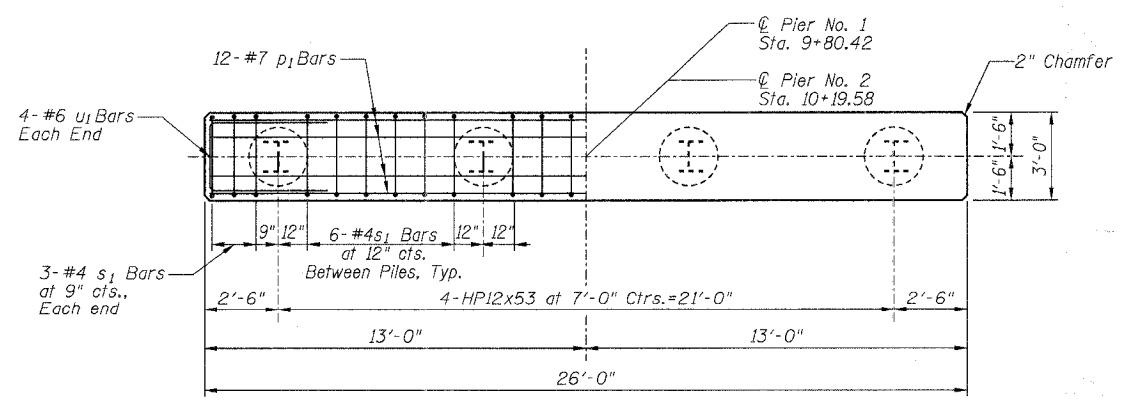


**ELEVATION**



**#4 s1 BARS**

**#6 u1 BARS**



**PLAN**

BILL OF MATERIALS ONE PIER				
Bar	No.	Size	Length	Shape
p <sub>1</sub>	12	#7	25'-8"	
s <sub>1</sub>	24	#4	10'-5"	□
u <sub>1</sub>	8	#6	9'-0"	□
Concrete Structures			Cu. Yd.	7.6
Concrete Encasement			Cu. Yd.	5.0
Reinforcement Bars			Pound	900

PILE DATA	
Type and Size:	Steel HP12x53
Nominal Required Bearing:	419 kips
Allowable Resistance Available:	139 kips
Estimated Length:	
Pier No. 1:	65 Foot
Pier No. 2:	65 Foot
Number of Production Piles:	
Pier No. 1:	4 Each
Pier No. 2:	4 Each
Number of Test Piles:	
Pier No. 1:	None
Pier No. 2:	None

**GENERAL NOTES**

All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.

All clearances between rebar and form surface shall be 2", unless otherwise noted.

Space reinforcement in cap to miss PPCDB dowel rods.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

**PIER DETAILS**  
**PROPOSED BRIDGE OVER**  
**LITTLE CREEK**  
**TR 254**  
**SECTION 06-12121-00-BR**  
**FAYETTE COUNTY, ILLINOIS**