

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM

TR 442
OVER TRIBUTARY TO BIG CREEK
SECTION 05-08121-00-BR
FAYETTE COUNTY
PROJECT NO. BROS-051(75)
C-97-151-06

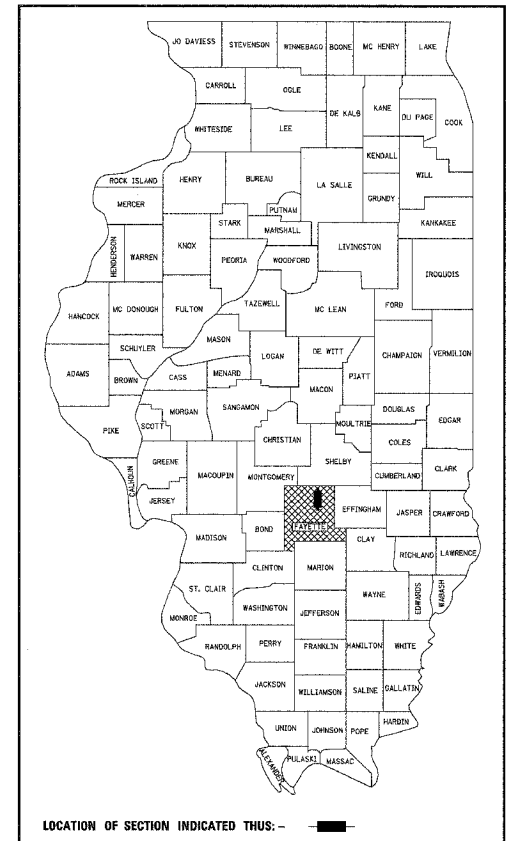
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	1
FED. ROAD DIST. NO. 7 ILLINOIS		FEDERAL AID PROJECT		
CONTRACT NO. 95489				

INDEX OF SHEETS

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

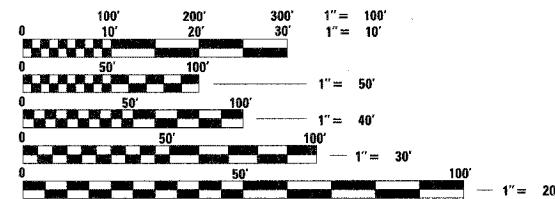
STANDARDS ARE INCLUDED IN PLANS AFTER SHEET NO. 10
 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
 515001-02 NAME PLATE FOR BRIDGES
 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
 702001-06 TRAFFIC CONTROL DEVICES
 BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SOIL BORINGS (SEE SPECIFICATIONS)



LOCATION OF SECTION INDICATED THUS: [Symbol]

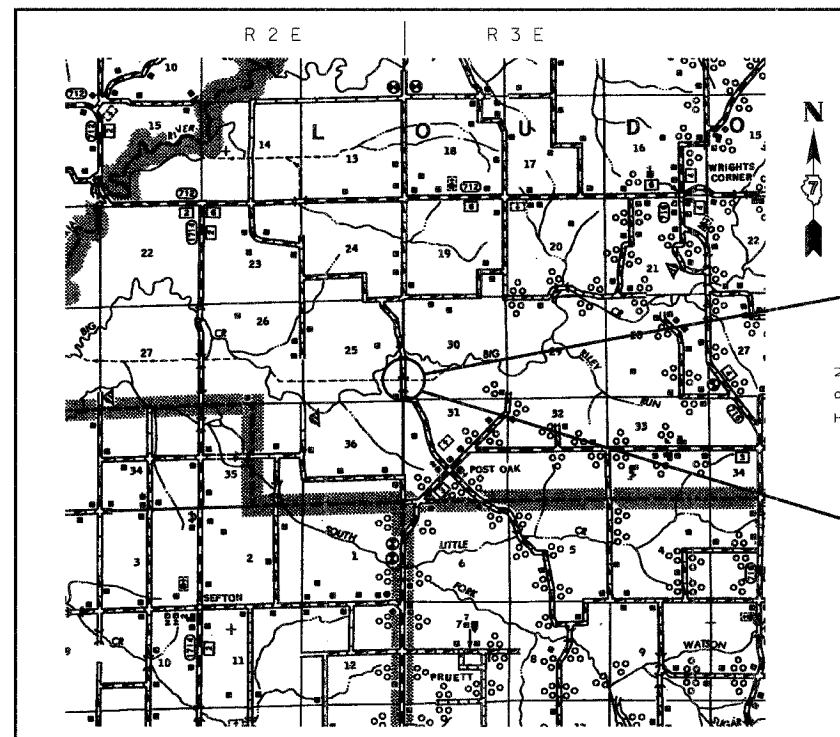
DESIGN CLASSIFICATION: RURAL LOCAL ROAD
 ADT₂₀₀₆ : 75
 ADT₂₀₂₆ : 100
 DESIGN SPEED - 30 MPH



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 NUMBER: 95489



SECTION BEGINS
STA. 6+90.00

SECTION 05-08121-00-BR

INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 442 OVER TRIBUTARY TO BIG CREEK, 56'-10" BK TO BK ABUTMENTS. NO SKEW. EXISTING STRUCTURE NO. 026-3205 PROPOSED STRUCTURE NO. 026-3434

SECTION ENDS
STA. 13+15.00

LOCATION: NEAR THE NW CORNER, SW 1/4, SW 1/4, SECTION 30, T8N, R3E, 3RD P.M.
 NET LENGTH OF PROJECT: 625.00 FT = 0.118 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED: 8-15, 2006
Michael S. Maty
 FAYETTE COUNTY, COUNTY ENGINEER

PASSED: 9-13, 2006
Maureen E. Kastl
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW: 9-13, 2006
Christ M. Reedy
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER



Gary L. Hahn 08-14-06
 GARY L. HAHN
 CENTRALIA, ILLINOIS
 ILLINOIS LICENSED PROFESSIONAL
 ENGINEER NO. 62-42606
 EXPIRES NOV. 30, 2007



Gary L. Hahn 08-14-06
 GARY L. HAHN
 CENTRALIA, ILLINOIS
 ILLINOIS LICENSED STRUCTURAL
 ENGINEER NO. 81-4853
 EXPIRES NOV. 30, 2006

RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
 ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

Sheet
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of 10
Job No. 51105

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	2
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 95489				

SUMMARY OF QUANTITIES

Code No.	Item	Unit	Quantity	Location	
				X081-2A	E000
20100500	TREE REMOVAL, ACRES	ACRE	0.3	-	0.3
20200100	EARTH EXCAVATION	CU YD	509	-	509
20300100	CHANNEL EXCAVATION	CU YD	10	10	-
20400800	FURNISHED EXCAVATION	CU YD	831	-	831
* 20700110	POROUS GRANULAR EMBANKMENT	TON	36	36	-
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.8	-	0.8
* 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	120	120	-
* 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	637	-	637
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	-
50300225	CONCRETE STRUCTURES	CU YD	17.2	17.2	-
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1336	1336	-
50800105	REINFORCEMENT BARS	POUND	2660	2660	-
50900205	STEEL RAILING, TYPE S1	FOOT	114	114	-
** 51201600	FURNISHING STEEL PILES HP12X53	FOOT	315	315	-
** 51202305	DRIVING PILES	FOOT	315	315	-
** 51203600	TEST PILE STEEL HP12X53	EACH	1	1	-
50300280	CONCRETE ENCASEMENT	CU YD	2.8	2.8	-
51500100	NAME PLATES	EACH	1	1	-
* 54201069	PIPE CULVERTS, CLASS D, TYPE 2 24"	FOOT	104	-	104
67100100	MOBILIZATION	L SUM	1	1	-

* See Special Provisions

** 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.

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.

If Section or Subsection monuments are encountered, the Engineer shall be notified before such monuments are removed. The Contractor shall protect and carefully preserve all property markers and monuments until owner, an authorized Surveyor or agent has witnessed or otherwise referenced their location.

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

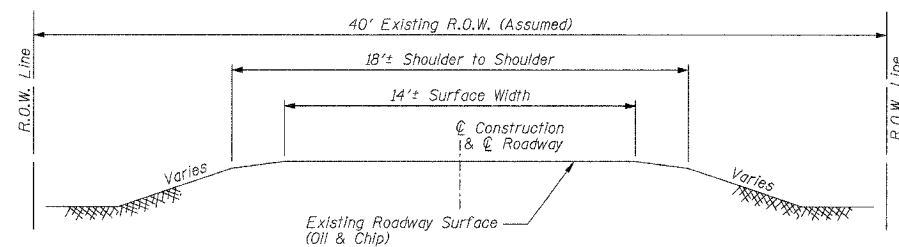
Telephone:
Frontier Communications
Phone: 217-854-3126

Gas:
Natural Gas Pipeline Company of America
St. Elmo, IL
Phone: 618-829-3224

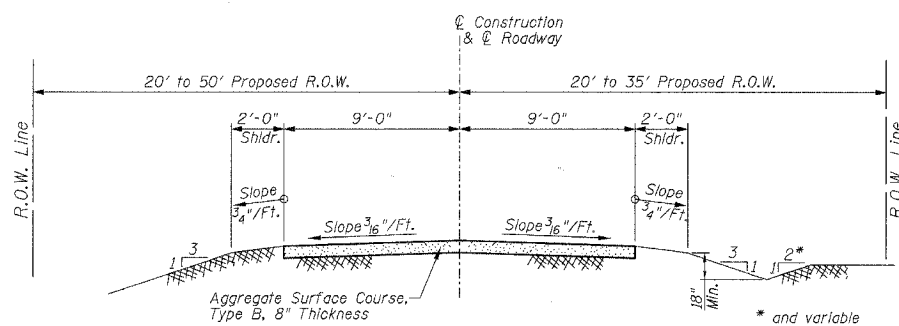
Electric:
Southwestern Electric Cooperative, Inc.
Greenville, IL
Phone: 618-664-1025

SUMMARY OF QUANTITIES AND TYPICAL SECTIONS PROPOSED BRIDGE CARRYING TR 442 OVER TRIBUTARY TO BIG CREEK SECTION 05-08121-00-BR FAYETTE COUNTY, ILLINOIS

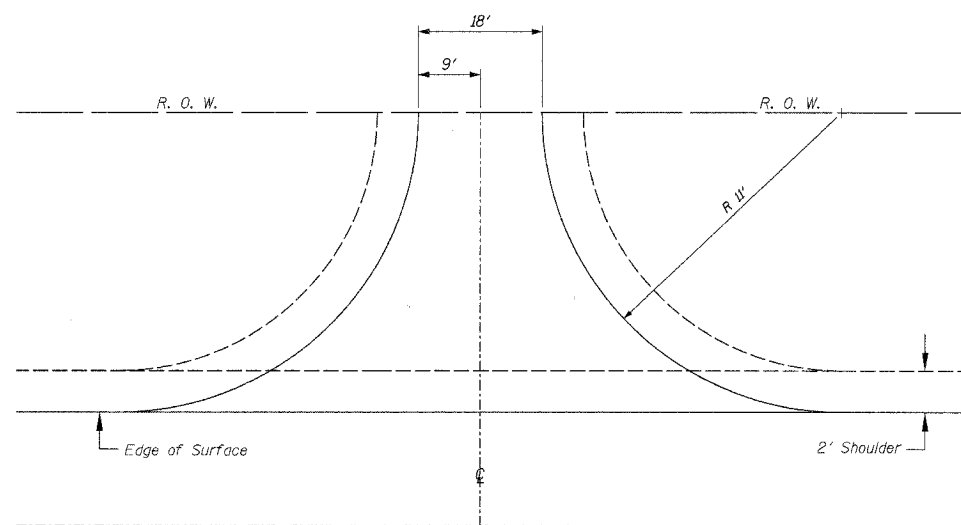
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of 10
Job No. 51105



TYPICAL SECTION
EXISTING APPROACH ROADWAY



TYPICAL SECTION
PROPOSED APPROACH ROADWAY
Looking Upstation (North)



Aggregate Surface Course, Type B 6" Depth
Lt., Sta. 12+38 - 10 Tons
(Included in Summary of Quantities)

TYPICAL PRIVATE ENTRANCE

08/14/2006

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	3
STA. 6+00.00 TO STA. 14+00.00		FED. AID PROJECT		
FED. ROAD DIST. NO. 7		ILLINOIS		
CONTRACT NO. 95489				

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 6+40.00 TO STA. 9+73.58	151	114	719	-605
STA. 10+23.00 TO STA. 13+65.00	358	268	494	-226
TOTAL	509	382	1213	-831

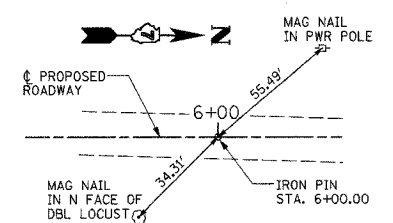
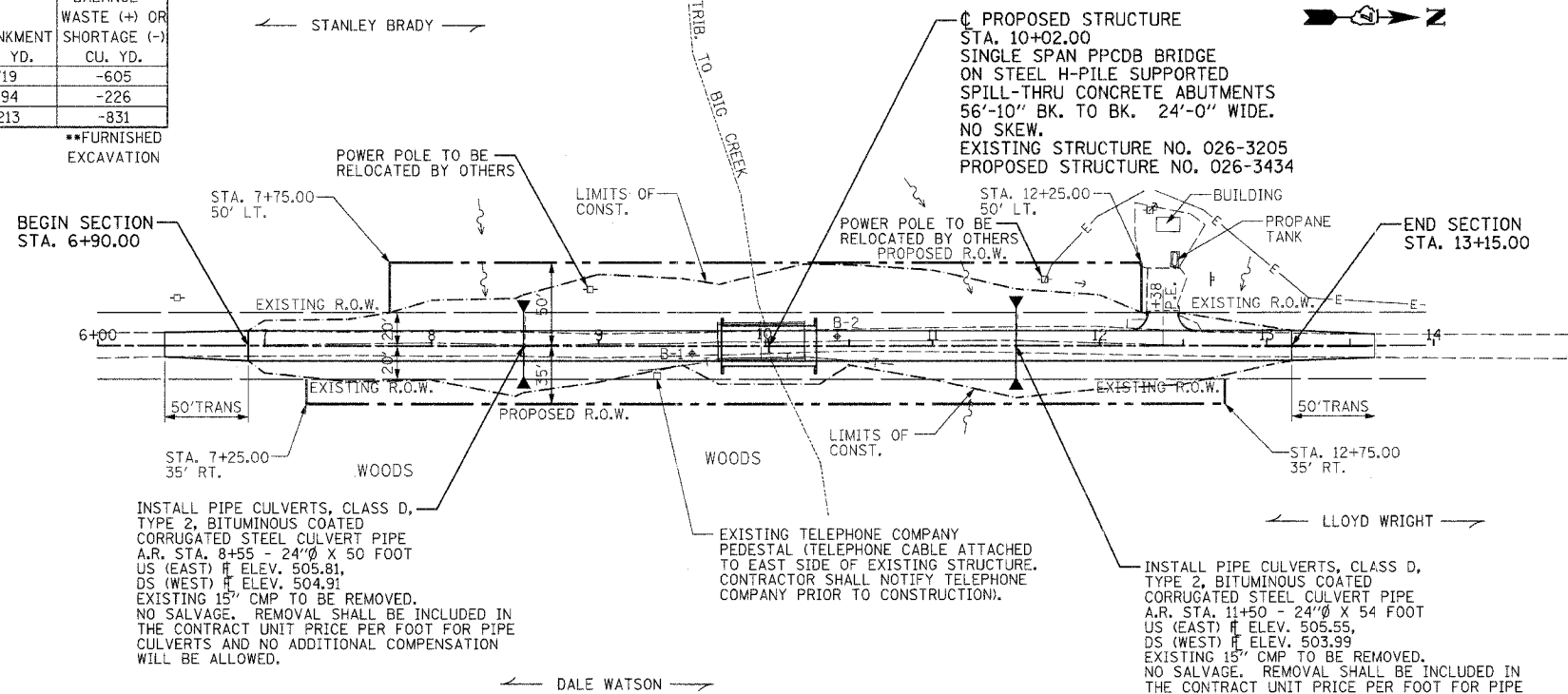
*25% SHRINKAGE

**FURNISHED EXCAVATION

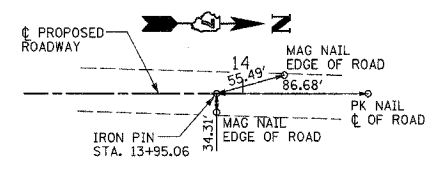
EXISTING STRUCTURE: TWO SPAN BRIDGE WITH PRECAST CONCRETE BRIDGE SLABS SUPPORTED ON CLOSED TIMBER ABUTMENTS AND TIMBER PIER. 52' BK. TO BK. ABUTMENTS, 22.3' OUT TO OUT OF DECK. EXISTING STRUCTURE NUMBER 026-3205.

TREE REMOVAL, ACRES	
LOCATION	TREE REMOVAL AC.
RT. STA. 7+25 TO RT. STA. 11+00	0.3
TOTALS	0.3

DATE: _____ BY: _____
 REVIEWED: _____ PLOTTED: _____
 ALIGNMENT CHECKED: _____
 PLAN CHECKED: _____
 NOTE BOOK NO.: _____
 CAD FILE NAME: _____



LINE TIES
P.O.T. STA. 6+00.00



LINE TIES
P.O.T. STA. 13+95.06

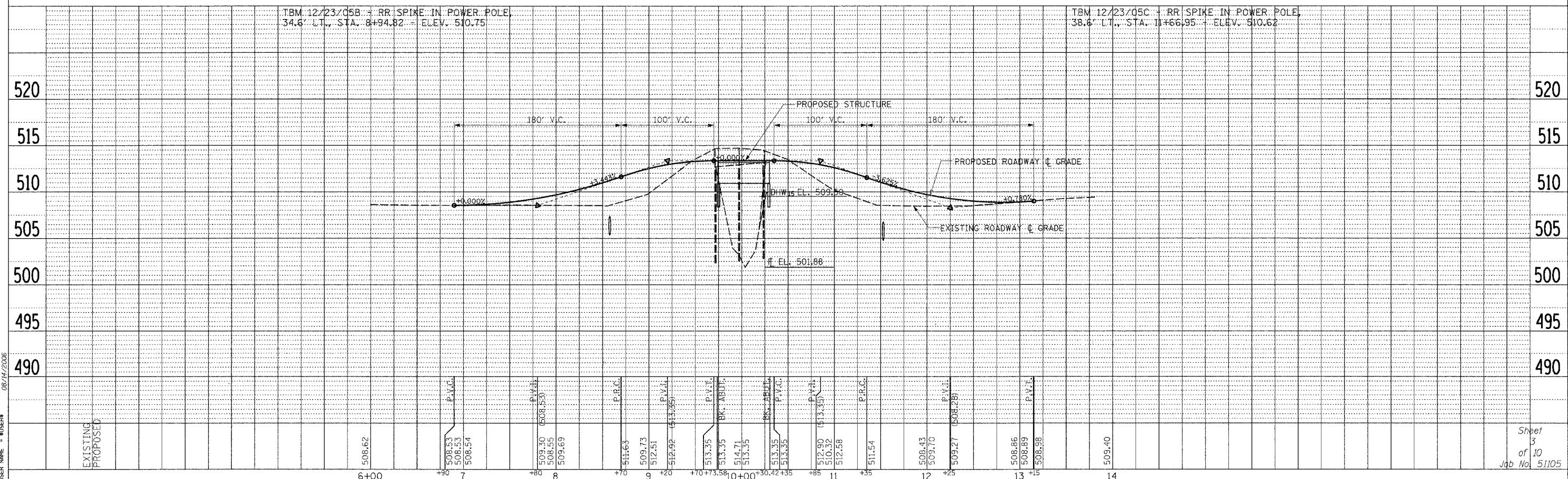
INSTALL PIPE CULVERTS, CLASS D, TYPE 2, BITUMINOUS COATED CORRUGATED STEEL CULVERT PIPE A.R. STA. 8+55 - 24"Ø X 50 FOOT US (EAST) # ELEV. 505.81, DS (WEST) # ELEV. 504.91. EXISTING 15" CMP TO BE REMOVED. NO SALVAGE. REMOVAL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PIPE CULVERTS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

EXISTING TELEPHONE COMPANY PEDESTAL (TELEPHONE CABLE ATTACHED TO EAST SIDE OF EXISTING STRUCTURE. CONTRACTOR SHALL NOTIFY TELEPHONE COMPANY PRIOR TO CONSTRUCTION).

INSTALL PIPE CULVERTS, CLASS D, TYPE 2, BITUMINOUS COATED CORRUGATED STEEL CULVERT PIPE A.R. STA. 11+50 - 24"Ø X 54 FOOT US (EAST) # ELEV. 505.55, DS (WEST) # ELEV. 503.99. EXISTING 15" CMP TO BE REMOVED. NO SALVAGE. REMOVAL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PIPE CULVERTS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

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 12/23/05B - RR SPIKE IN POWER POLE 34.6' LT., STA. 8+94.82 - ELEV. 510.75
 TBM 12/23/05C - RR SPIKE IN POWER POLE 38.6' LT., STA. 11+66.95 - ELEV. 510.62



DATE: _____ BY: _____
 REVIEWED: _____ PLOTTED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATION CHECKED: _____
 NOTE BOOK NO.: _____
 USER NAME: _____

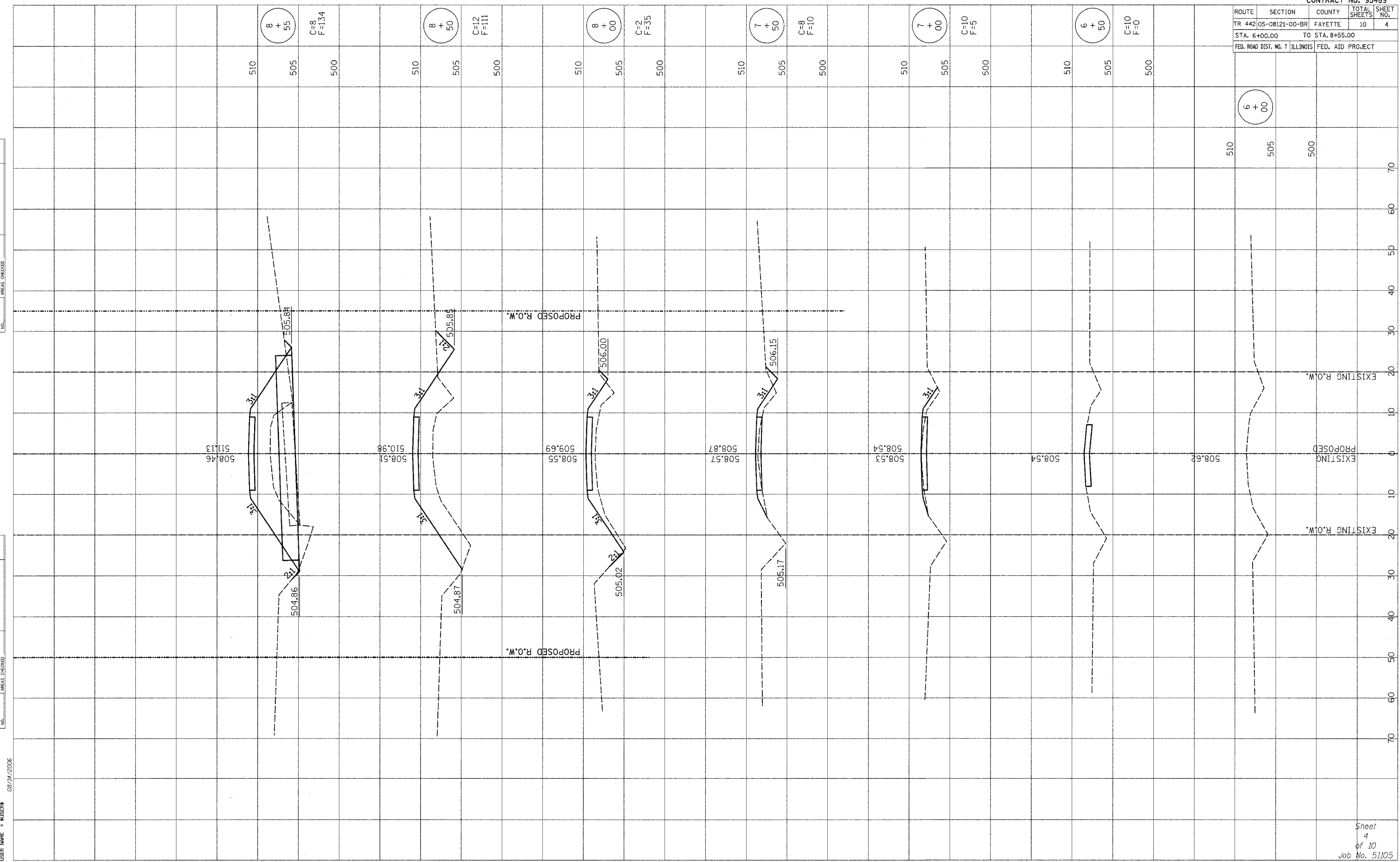
Sheet 3 of 10
Job No. 51105

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	4
STA. 6+00.00		TO STA. 8+55.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEY	DATE
NOTE BOOK	PLOTTED	
NO.	AREAS CHECKED	

ORIGINAL SURVEY	SURVEY	DATE
NOTE BOOK	PLOTTED	
NO.	AREAS CHECKED	

PLOT DATE = DATE
 FILE NAME = FILEL#
 USER NAME = USER#



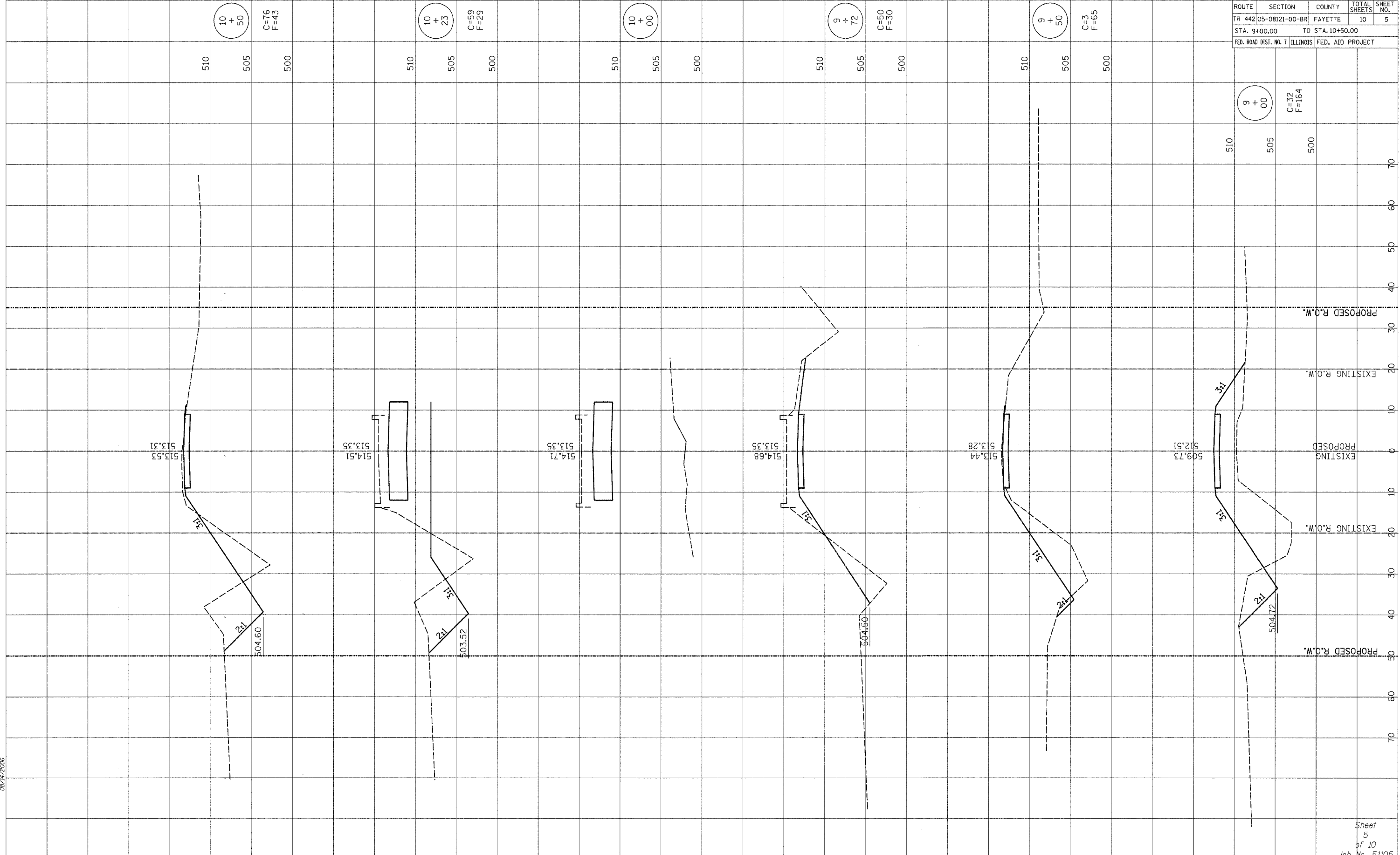
08/14/2006

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	5
STA. 9+00.00		TO STA. 10+50.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	DATE
REVISIONS	BY
NO.	DATE

ORIGINAL SURVEY NO.	DATE
REVISIONS	BY
NO.	DATE

PLOT DATE = 08/14/2006
 FILE NAME = R11E164
 USER NAME = WBSRTP

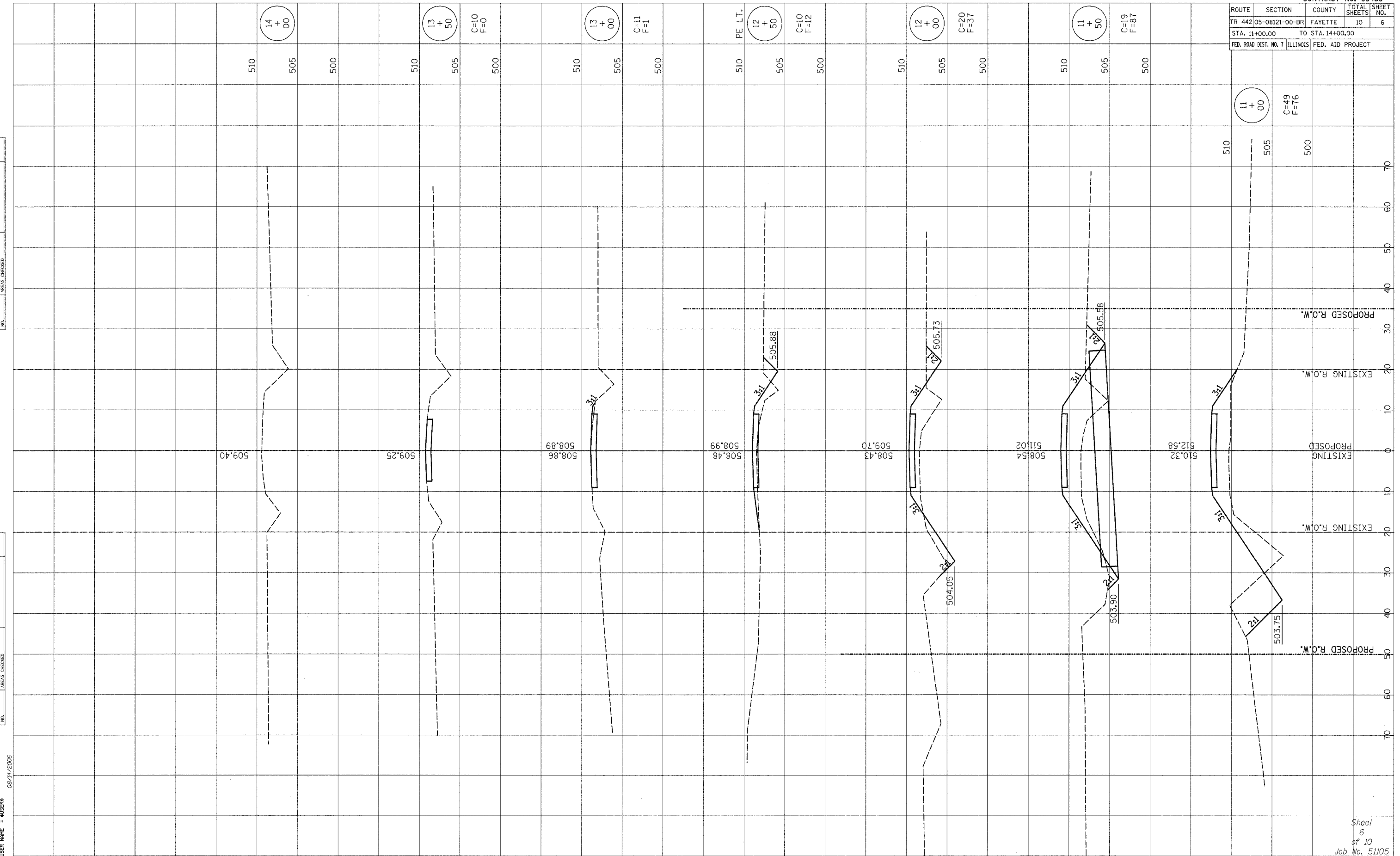


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	6
STA. 11+00.00		TO STA. 14+00.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	DATE
REVISIONS	
BY	DATE
BY	DATE

ORIGINAL SURVEY NO.	DATE
REVISIONS	
BY	DATE
BY	DATE

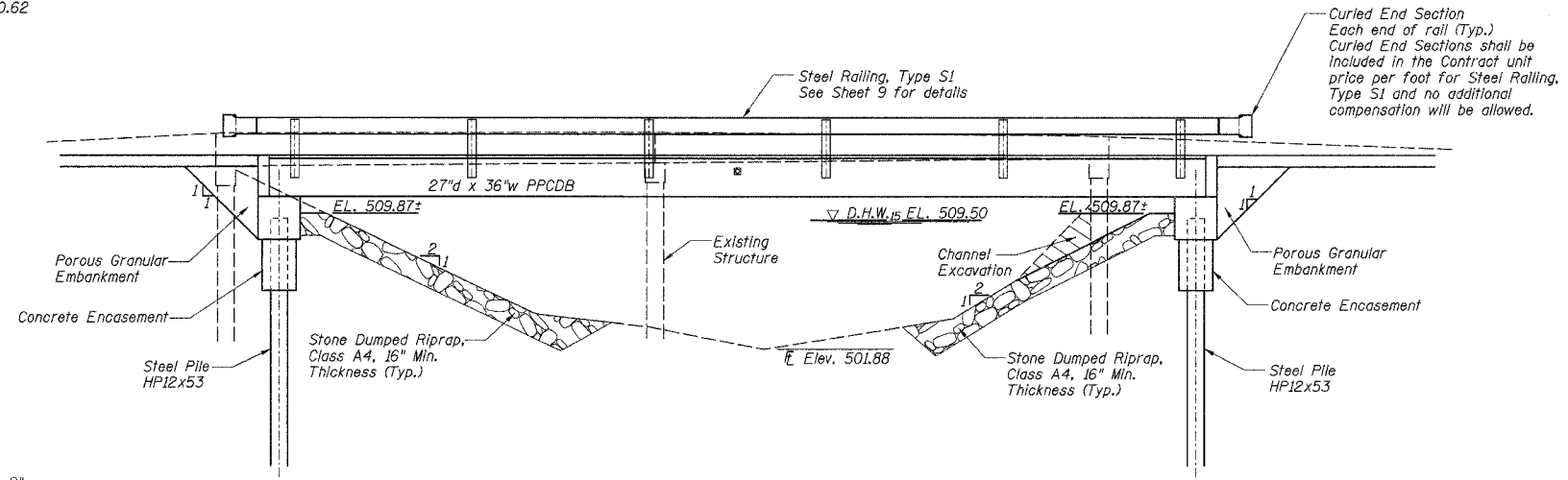
PLOT DATE = 08/14/2005
 FILE NAME = 51105
 USER NAME = BUSBY



TBM 12/23/05 "B" - RR Spike set in power pole, 34.6' Lt., Sta. B+94.82 - Elev. 510.75
 TBM 12/23/05 "C" - RR Spike set in power pole, 38.6' Lt., Sta. 11+66.95 - Elev. 510.62

Existing Structure No. 026-3205: Two span bridge with precast concrete bridge slabs on closed timber abutments and pier. 52'L.x22.3'W.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	7
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT	
CONTRACT NO. 95489				

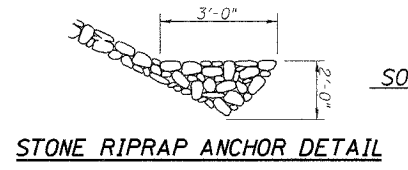


BILL OF MATERIALS (BRIDGE ONLY)

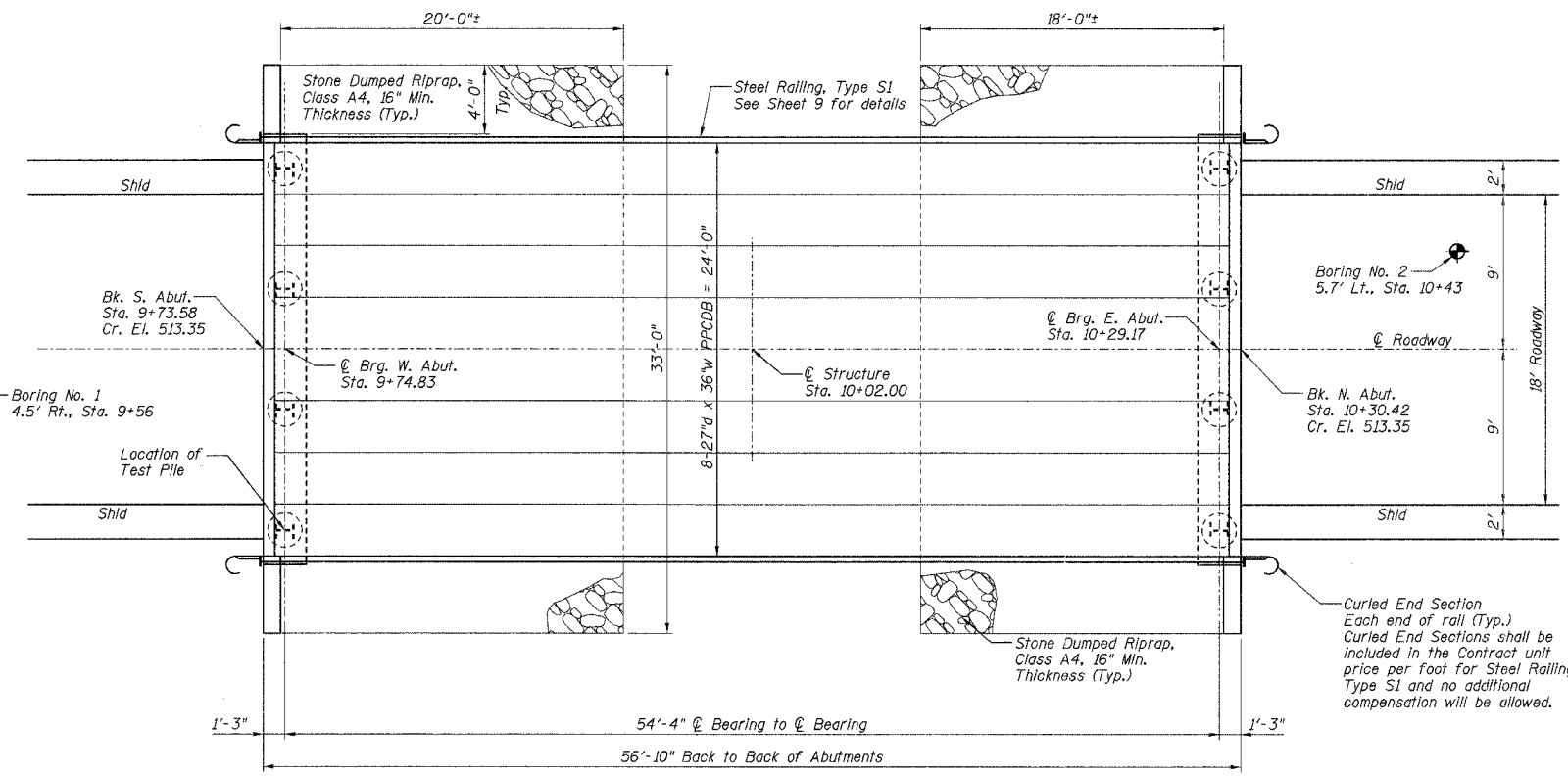
ITEM	UNIT	SUB	SUPER	TOTAL
CHANNEL EXCAVATION	CU YD	10	-	10
POROUS GRANULAR EMBANKMENT	TON	36	-	36
STONE DUMPED RIPRAP, CLASS A4	TON	120	-	120
REMOVAL OF EXISTING STRUCTURES	EACH	-	-	1
CONCRETE STRUCTURES	CU YD	17.2	-	17.2
PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SO FT	-	1336	1336
REINFORCEMENT BARS	POUND	2660	-	2660
STEEL RAILING, TYPE S1	FOOT	-	114	114
FURNISHING STEEL PILES HP12X53	FOOT	315	-	315
DRIVING PILES	FOOT	315	-	315
TEST PILE STEEL HP12X53	EACH	1	-	1
CONCRETE ENCASEMENT	CU YD	2.8	-	2.8
NAME PLATES	EACH	1	-	1

GENERAL NOTES

See Section 502 of the Standard Specifications for Structure 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 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.
 The Contractor is advised that some upper level layers of stiff soils may be encountered prior to the location of anticipated refusal. See the Soil Borings for further information.
 In addition to all other requirements of Section 512 of the Standard Specifications, splices for Steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.
 The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

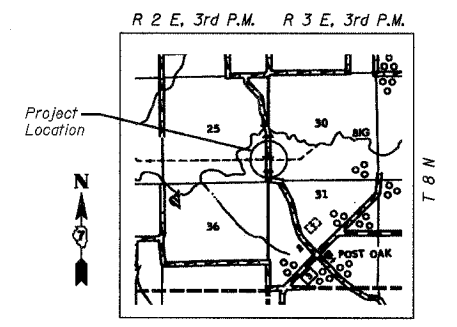


ELEVATION



TRIBUTARY TO BIG CREEK
 BUILT 200 BY
 FAYETTE COUNTY
 PROJECT NO. BROS-051(75)
 SECTION 05-08121-00-BR
 LOADING HS-20
 STRUCTURE NO. 026-3434

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
 CENTRALIA, ILLINOIS
 ILLINOIS LICENSED STRUCTURAL
 ENGINEER NO. 81-4853
 EXPIRES NOV. 30, 2006

**GENERAL PLAN AND ELEVATION
 PROPOSED BRIDGE CARRYING TR 442
 OVER TRIBUTARY TO BIG CREEK
 SECTION 05-08121-00-BR
 FAYETTE COUNTY, ILLINOIS**

WATERWAY DATA

Drainage Area = 96.7 Sq. Mi.		Low Grade Elev. 507.9 @ Sta. 17+30+			
Flood Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Natural H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	15 7954	236 244	509.50	Neg. Neg.	590.50 509.50
Base	100 12514	249 259	510.90	Neg. Neg.	510.90 510.90

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi
 PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " strands)
 $f'_{sl} = 189,000$ psi ($\frac{1}{2}$ " strands)

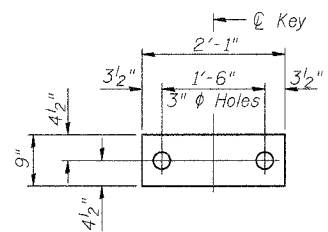
DESIGN SPECIFICATIONS
 AASHTO - 2002 17th Edition

LOADING HS 20-44
 Allow 25#/sq. ft. for future wearing surface.

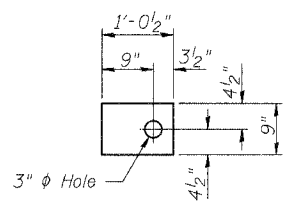
**GRADE ON
 STRUCTURE**

08/14/2006

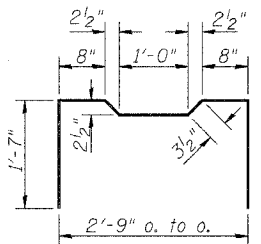
ROUTE	SECTION	COUNTY	TOTAL SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT	8
			CONTRACT NO. 95489



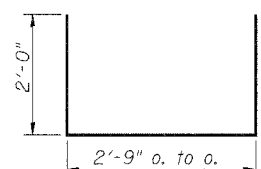
FABRIC BEARING PAD
(Interior)



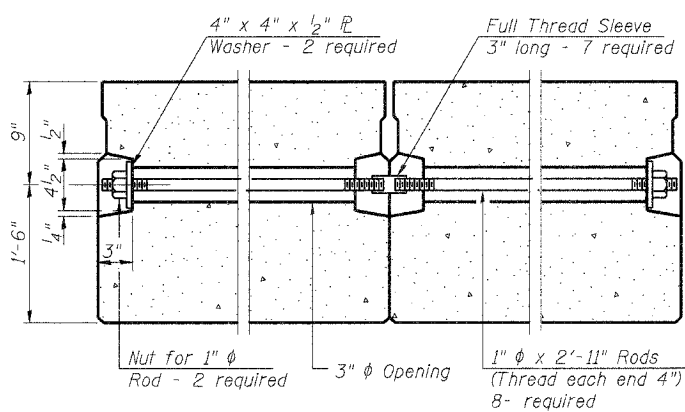
FABRIC BEARING PAD
(Exterior)



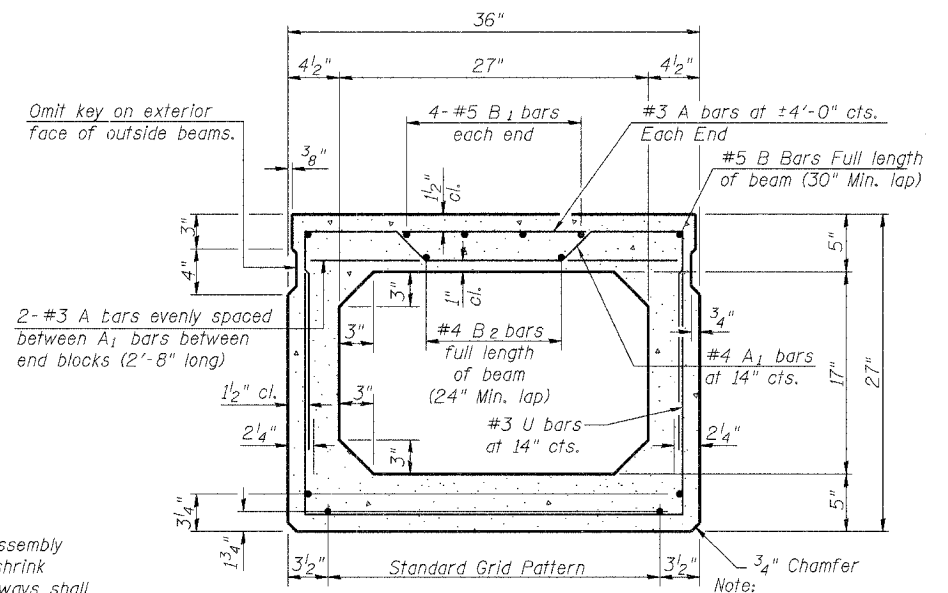
BAR A₁



BARS U & U₁

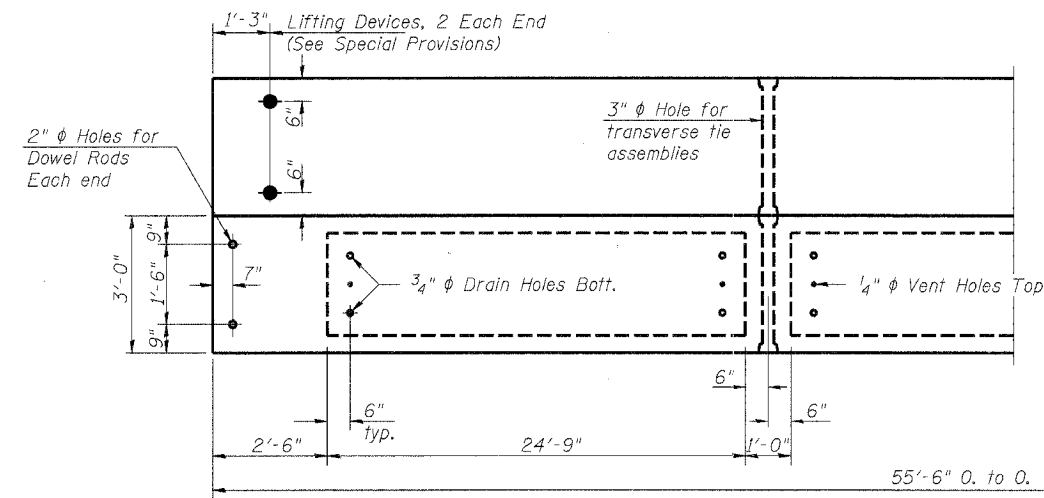


TYPICAL TRANSVERSE TIE ASSEMBLY

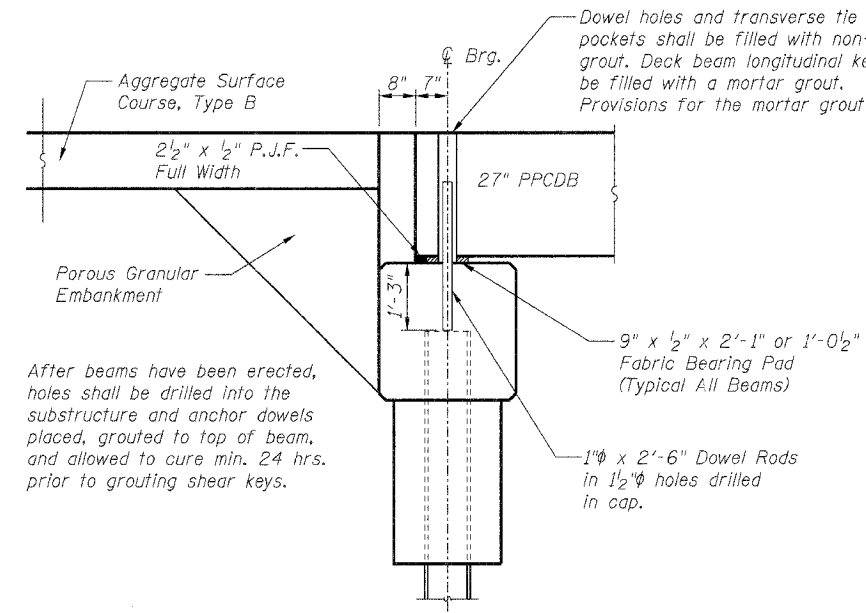


TYPICAL SECTION

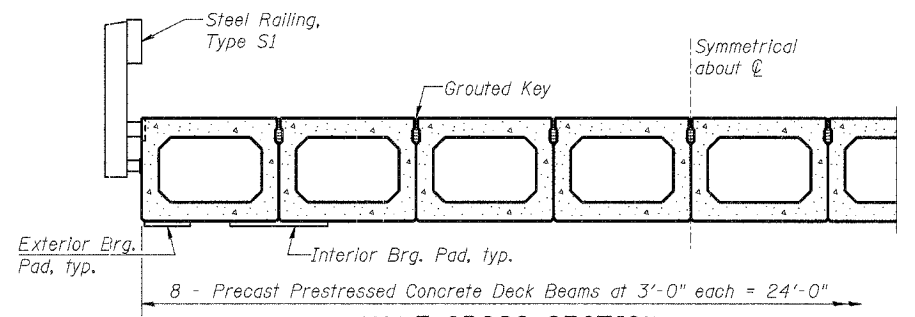
Note:
Place strands symmetrically about \bar{C} of beam.
13 - 1/2" ϕ Strands, Each Strand Stressed to 28,900 Lbs.
9 - Strands 1 3/4" up, 4 - Strands 3/4" up



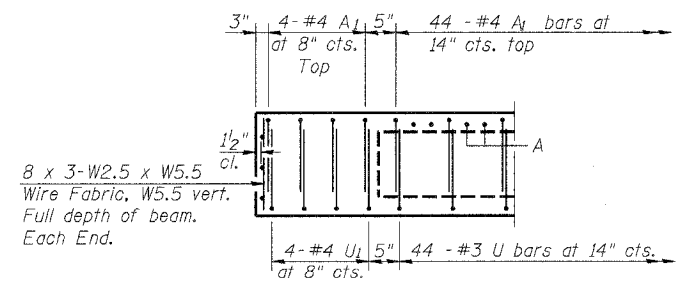
PLAN



FIXED ABUTMENT



HALF CROSS SECTION



END ELEVATION

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.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- 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 4,000 p.s.i.
- An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted. However, the initial prestressing force applied to each strand shall be a maximum of 28,900 pounds per strand.

BILL OF MATERIAL FOR ONE BEAM

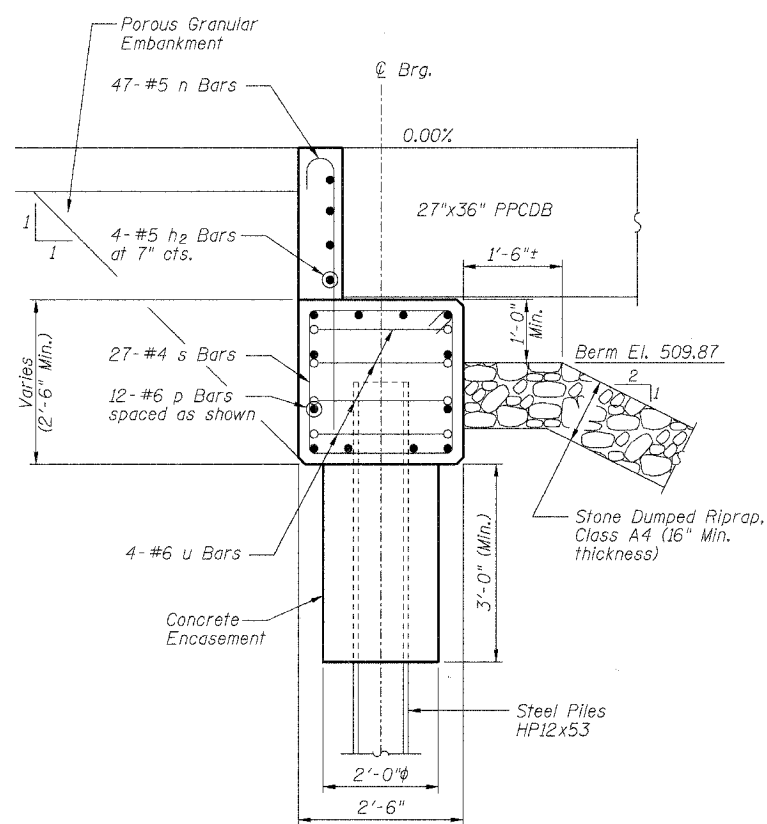
Bar	No.	Size	Length	Shape
A	94	#3	2'-8"	—
A ₁	52	#4	6'-1"	⌒
B	4	#5	29'-0"	—
B ₁	8	#5	11'-3"	—
B ₂	4	#4	28'-9"	—
U	44	#3	6'-9"	⌒
U ₁	8	#4	6'-9"	⌒
Precast Prestressed Concrete Deck Beams		Sq. Ft.	167	
Reinforcement Bars		Pound	740	
Total Weight		Pound	33,460	

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
PROPOSED BRIDGE CARRYING TR 442 OVER TRIBUTARY TO BIG CREEK
SECTION 05-08121-00-BR
FAYETTE COUNTY, ILLINOIS

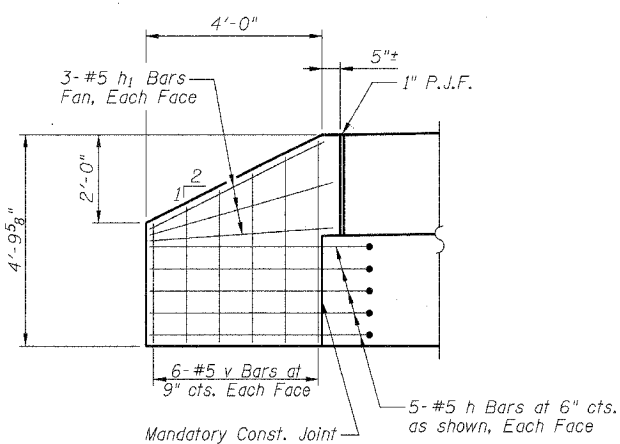
Sheet 8 of 10
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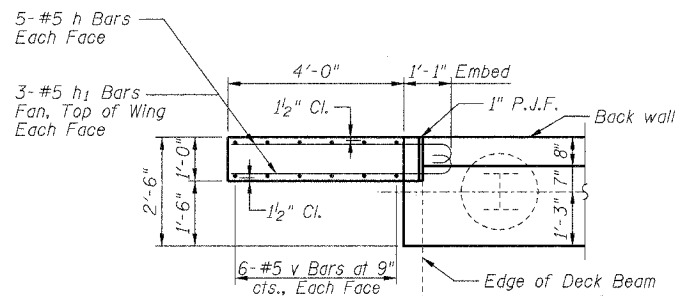
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 442	05-08121-00-BR	FAYETTE	10	10
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 95489				



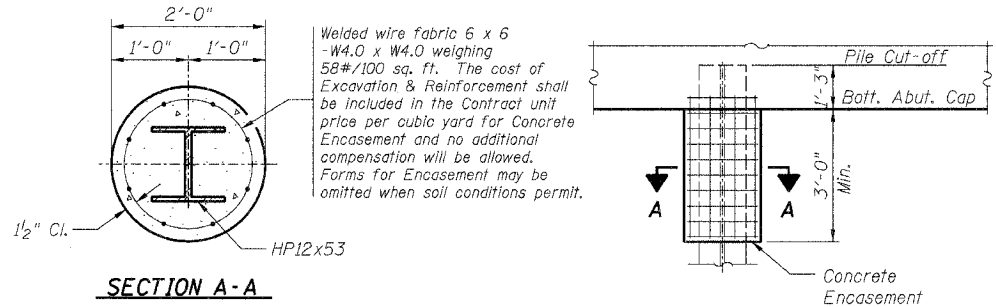
SECTION THRU ABUTMENT
Normal to Abutment



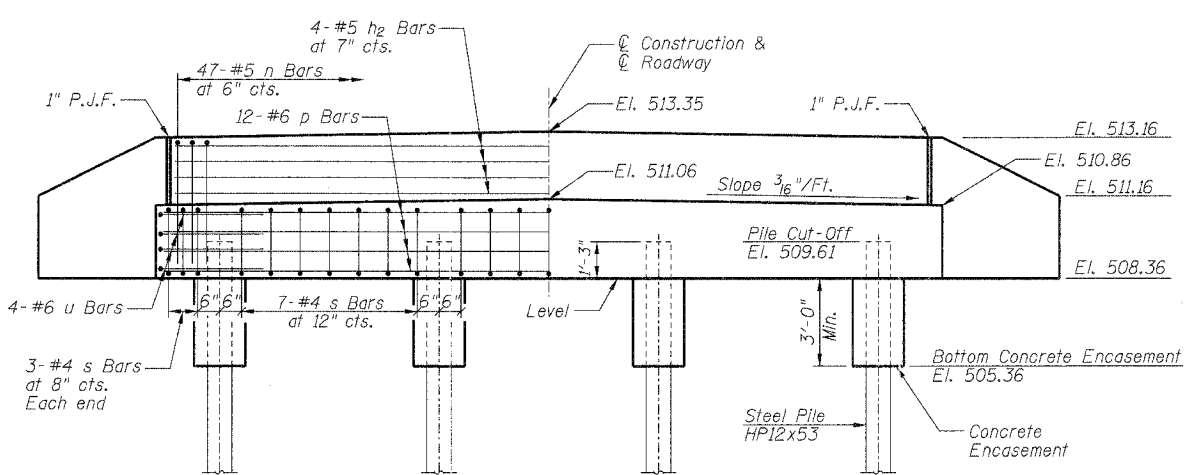
ELEVATION OF WINGWALL



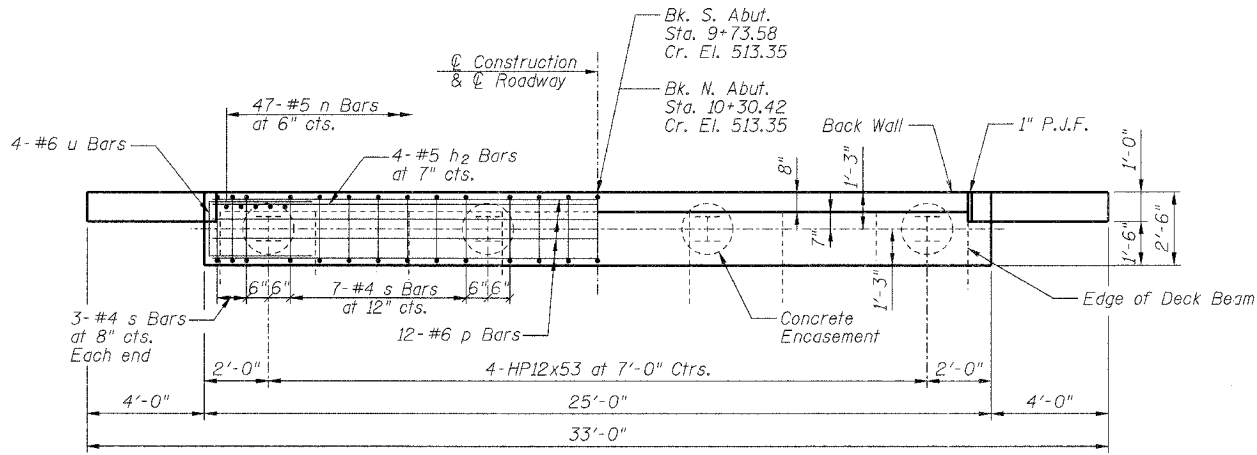
WINGWALL CONNECTION DETAIL



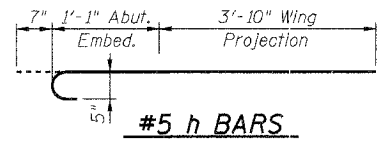
PILE ENCASEMENT DETAIL



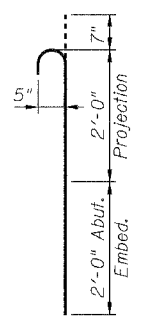
ELEVATION



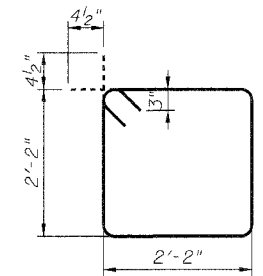
PLAN



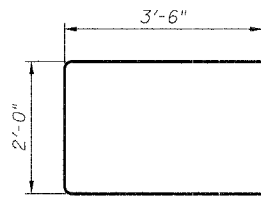
#5 h BARS



#5 n BARS



#4 s BARS



#6 u BARS

PILE DATA

Type:	South Abutment	Steel HP12x53
	North Abutment	Steel HP12x53
Estimated Length:	South Abutment	45 Foot
	North Abutment	45 Foot
Number Required:	South Abutment	3+1 Test Pile
	North Abutment	4
Total Estimated Length for Both Abutments:	(Does not include Test Pile)	315 Foot
Capacity:	Drive to Refusal (See Note below)	

BILL OF MATERIALS
ONE ABUTMENT w/ WINGWALLS

Bar	No.	Size	Length	Shape
h	20	#5	5'-6"	U
h1	12	#5	4'-3"	U
h2	4	#5	23'-8"	U
n	47	#5	4'-7"	U
p	12	#6	24'-8"	U
s	27	#4	9'-5"	U
u	8	#6	9'-0"	U
v	24	#5	4'-6"	CUT IN FIELD
Concrete Structures		Cu Yd	8.6	
Reinforcement Bars		Pound	1330	
Concrete Encasement		Cu Yd	1.4	

GENERAL NOTES

- All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.
- All clearances between reinforcement bars and form surface shall be 2", unless otherwise noted.
- 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.
- The Contractor is advised that some upper level layers of stiff soils may be encountered prior to the location of anticipated refusal. See the Soil Borings for further information.
- Space reinforcement in cap to miss PPCDB dowel rods.

ABUTMENT DETAILS
PROPOSED BRIDGE CARRYING TR 442
OVER TRIBUTARY TO BIG CREEK
SECTION 05-08121-00-BR
FAYETTE COUNTY, ILLINOIS

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