

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	D7 Beam Repair 2011-1	COLES	5	1
		ILLINOIS	CONTRACT NO. 74499	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 91 (IL 16)
SECTION D7 BEAM REPAIR 2011-1

BEAM BRACING
COLES COUNTY

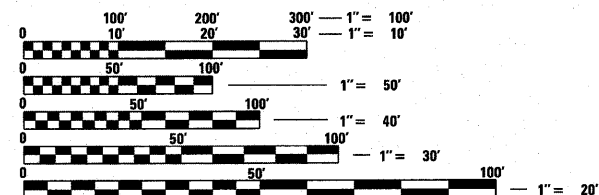
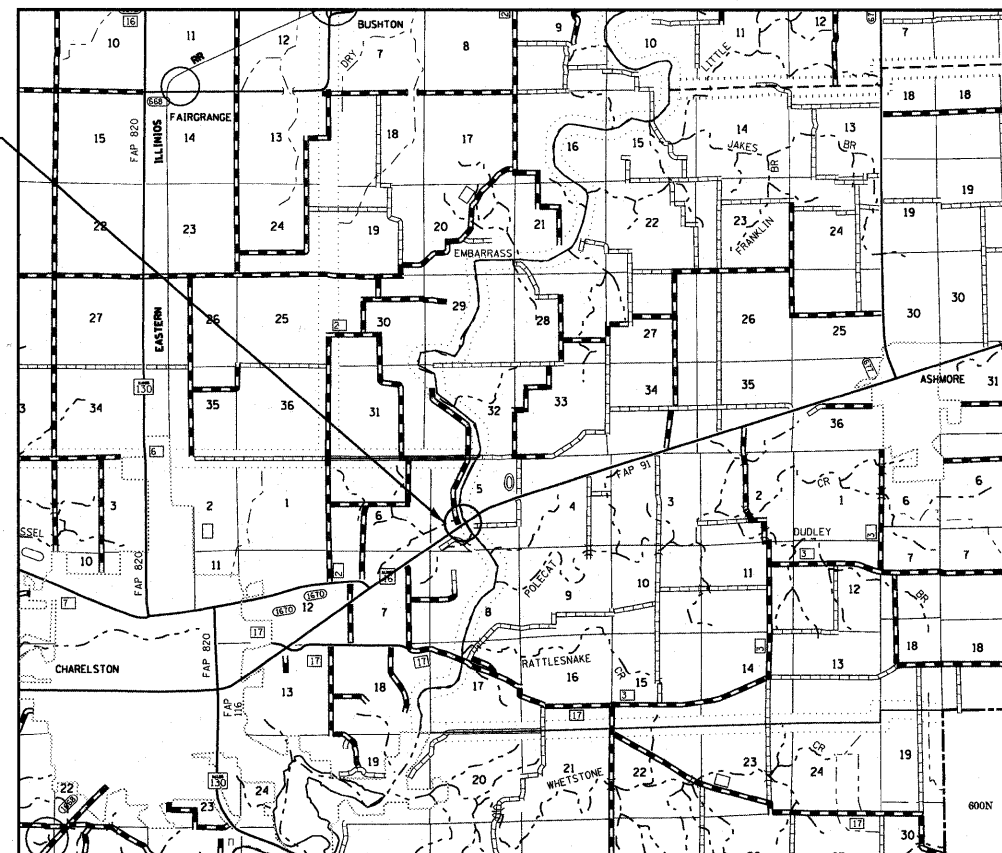
C-97-150-10

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-97-082-10



PROJECT LOCATION:
SECTION D7 BEAM REPAIR 2011-1
STRUCTURE 015-0019
STATION 155+09



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

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

PROJECT ENGINEER: MARK DAUGHERTY
PROJECT MANAGER: BRIAN J. BIERMAN

CONTRACT NO. 74499

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 4 2010
Roger J. Dinkell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 25 2010
Scott E. Stitt, P.E.
ACTING ENGINEER OF DESIGN AND ENVIRONMENT

June 25 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO THE CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	GENERAL NOTES AND INDEX OF SHEETS
3	SUMMARY OF QUANTITIES
4-5	BRIDGE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 5:

STD. NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701901-01	TRAFFIC CONTROL DEVICES

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & INDEX OF SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -			91	D7 Beam Repotr 2011-1	Coles	5	2
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -			CONTRACT NO. 74499				
	PLOT DATE = #DATE#	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		SFTY-2A 100% STATE		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	8950	8950		
67100100	MOBILIZATION	L SUM	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		

* Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 36". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

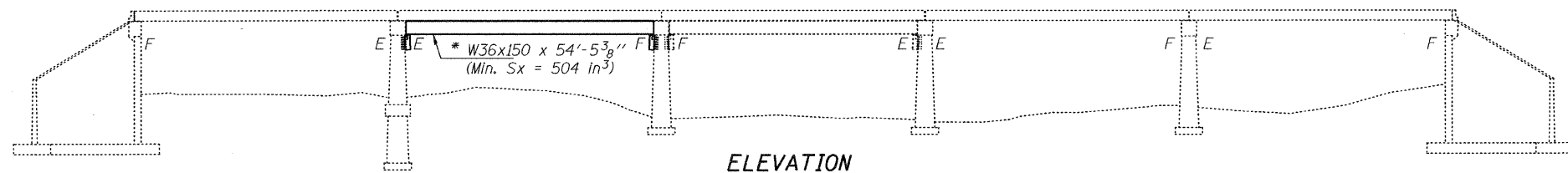
See Section 584 of the Standard Specifications for Epoxy Grouting of threaded rods; minimum embedment = 9".

The cost of epoxy grouting threaded rods shall be included with Furnishing and Erecting Structural Steel.

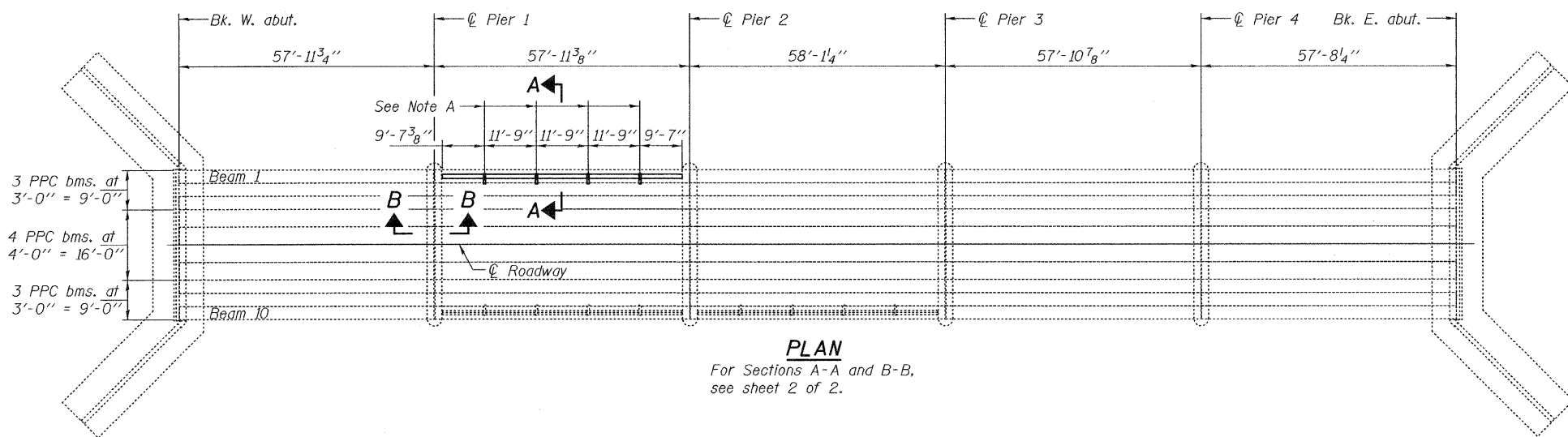
The Contractor has the option of using used steel. See special provisions.

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures.

If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.



ELEVATION



PLAN

For Sections A-A and B-B, see sheet 2 of 2.

Note A:
 ☉ Transverse tie plates. Place additional shims at midpoints between tie plates. Securely weld shims to top flange of support beam. Min. shim size is 6" x flange width.



Expires Nov. 30, 2010

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	8950

DESIGNED: Victor H. Valis
 CHECKED: [Signature]
 DRAWN: ballva
 CHECKED: [Signature]

EXAMINED: [Signature]
 ENGINEER OF STRUCTURAL SERVICES
 PASSED: [Signature]
 ENGINEER OF BRIDGES AND STRUCTURES

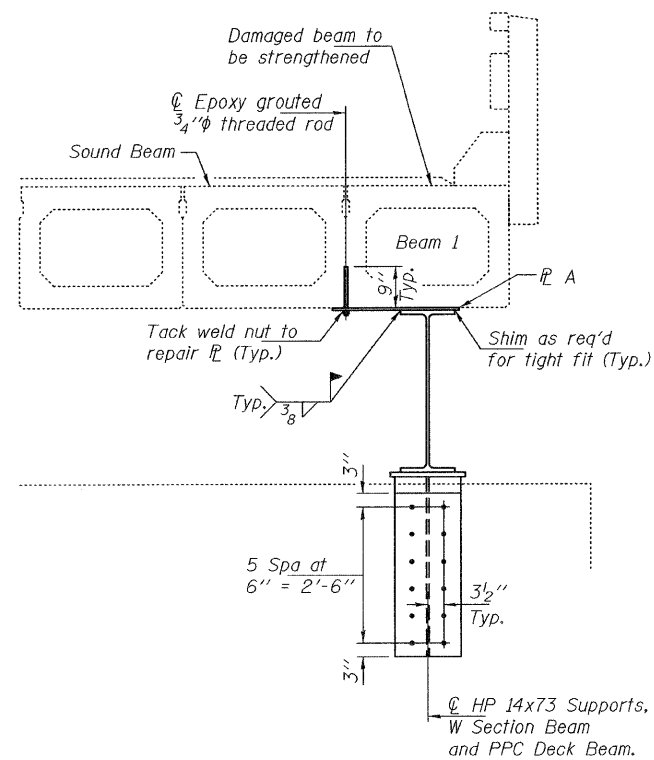
DATE - JUNE 14, 2010

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

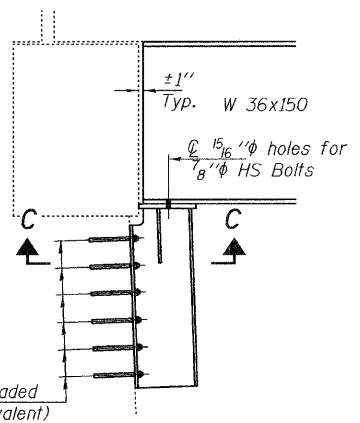
PLAN AND ELEVATION
 SN 015-0019

SHEET 1 OF 2 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	DT BEAM REPAIR 2011-1	COLES	5	4
CONTRACT NO. 74499			ILLINOIS FED. AID PROJECT	

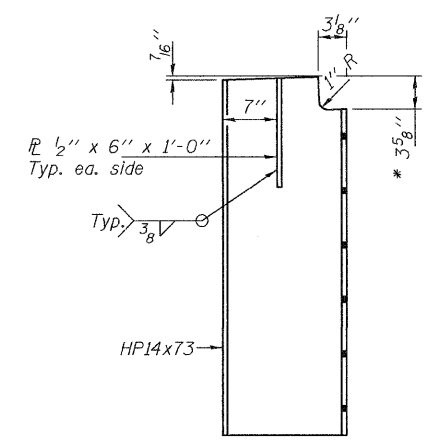


SECTION A-A



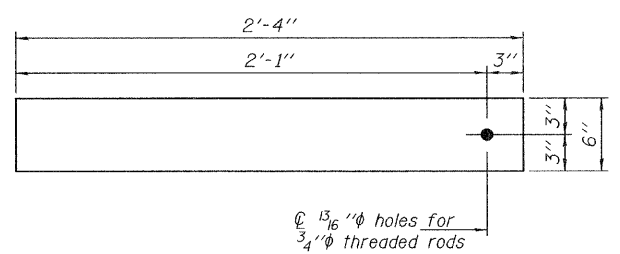
SECTION B-B

1" holes for 3/4" HS threaded rods (ASTM A193, B7 or equivalent)

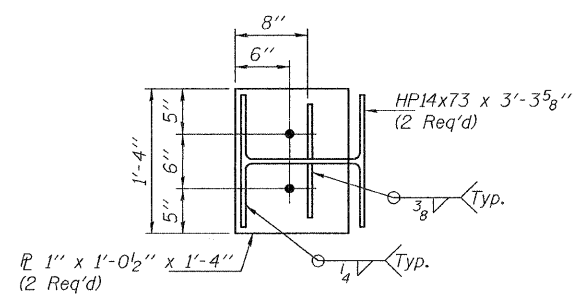


NOTCH AND STIFFENER DETAIL

* This dimension can be reduced if existing field conditions allow it.



TRANSVERSE TIE PLATES
 PL A 1/2" x 2'-4" x 6" (4 Req'd)



SECTION C-C

DESIGNED VHV
 CHECKED DAB
 DRAWN baliva
 CHECKED VHV DAB

EXAMINED *Carl Perry*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - JUNE 14, 2010

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
 SN 015-0019

SHEET 2 OF 2 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	D7 BEAM REPAIR 2011-1	COLES	5	5
CONTRACT NO. 74499			ILLINOIS FED. AID PROJECT	