

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PROPOSED  
 HIGHWAY PLANS**

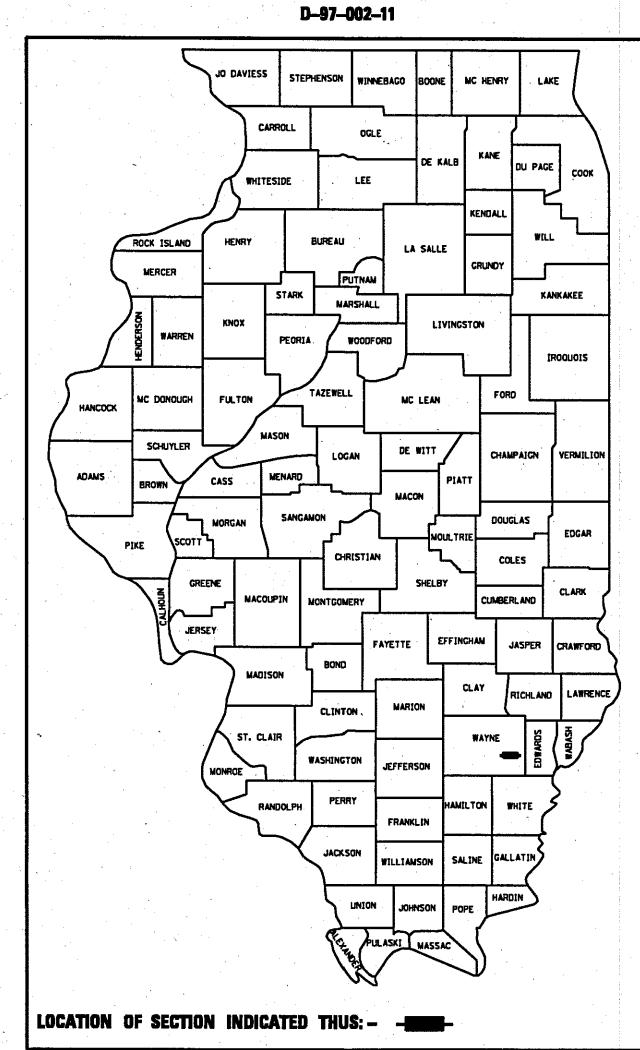
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7-BEAM REPAIR 2011-2	WAYNE	4	1
		ILLINOIS	CONTRACT NO. 74502	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.P. ROUTE 823 (IL15)  
 SECTION D7-BEAM REPAIR 2011-2

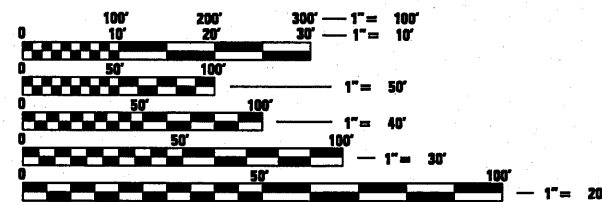
BEAM REPAIR  
 WAYNE COUNTY

C-97-012-11



ADT = 2400 (2007)

SECTION D7 BEAM REPAIR 2011-2  
 WAYNE COUNTY  
 S.N. 096-0063

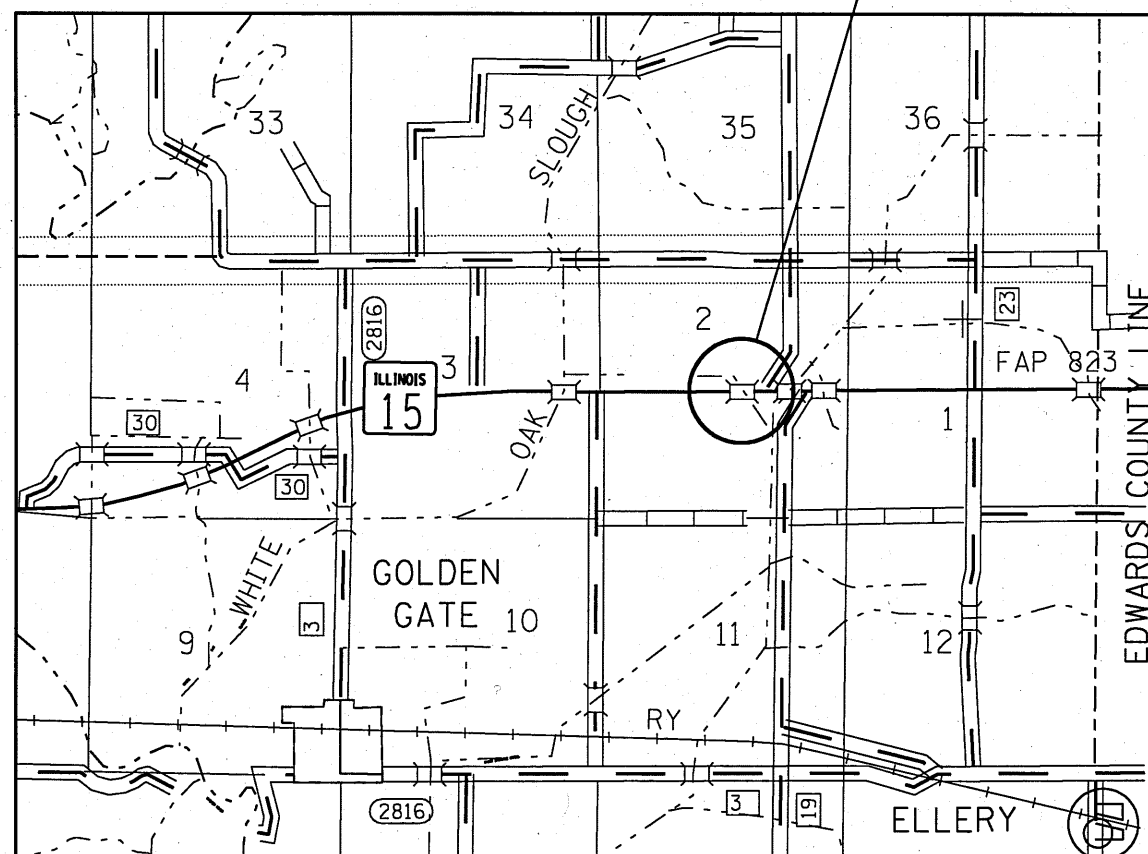


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TOM RONAN  
 PROJECT MANAGER: TOM RONAN

CONTRACT NO. 74502



T 1 S  
 T 2 S



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED Oct 18 20 10  
*Roger L. Driskell / mo*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 10 20 10  
*Scott E. Stitt, P.E. / la*  
 acting ENGINEER OF DESIGN AND ENVIRONMENT

Dec 10 20 10  
*Christine M. Reed*  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

R 9 E

## INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES, INDEX OF SHEETS, AND GENERAL NOTES
3	GENERAL PLAN & ELAVATION VIEW
4	PPC DECK BEAM SUPPORT DETAILS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 4:

STD. NO.	DESCRIPTION
00001-06	"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"
701201-04	"LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH"
701901-01	TRAFFIC CONTROL DEVICES

## GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2007; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN SECTION D7-BEAM REPAIR 2011-2 IS LOCATED AT STRUCTURE NUMBER 096-0063 OVER WHITE OAK SLOUGH OVERFLOW LOCATED 1.5 MILES WEST OF THE EDWARDS COUNTY LINE ON ILLINOIS ROUTE 15 IN WAYNE COUNTY. THE WORK INCLUDED IN THIS PROJECT CONSISTS OF BRACING SEVEN (7) DECK BEAMS TO MAINTAIN/IMPROVE THE LOAD CAPACITY.

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 CONTRACTORS RESPONSIBILITY 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.

*100% STATE*

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT		<i>0014</i>
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	25250	25250
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1

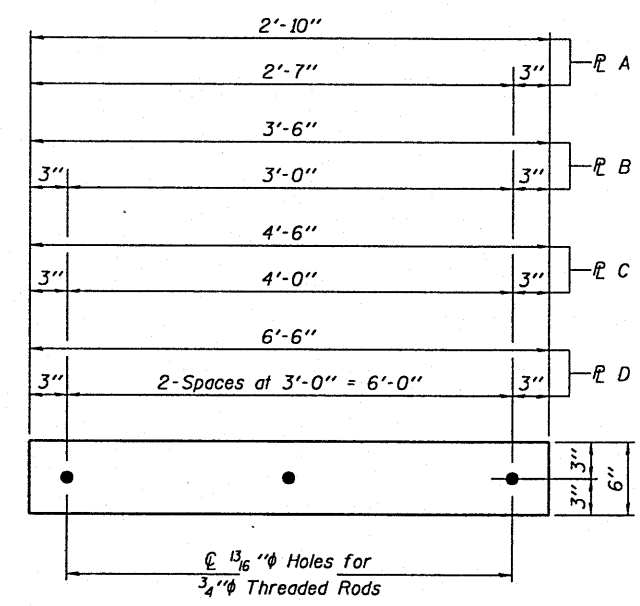
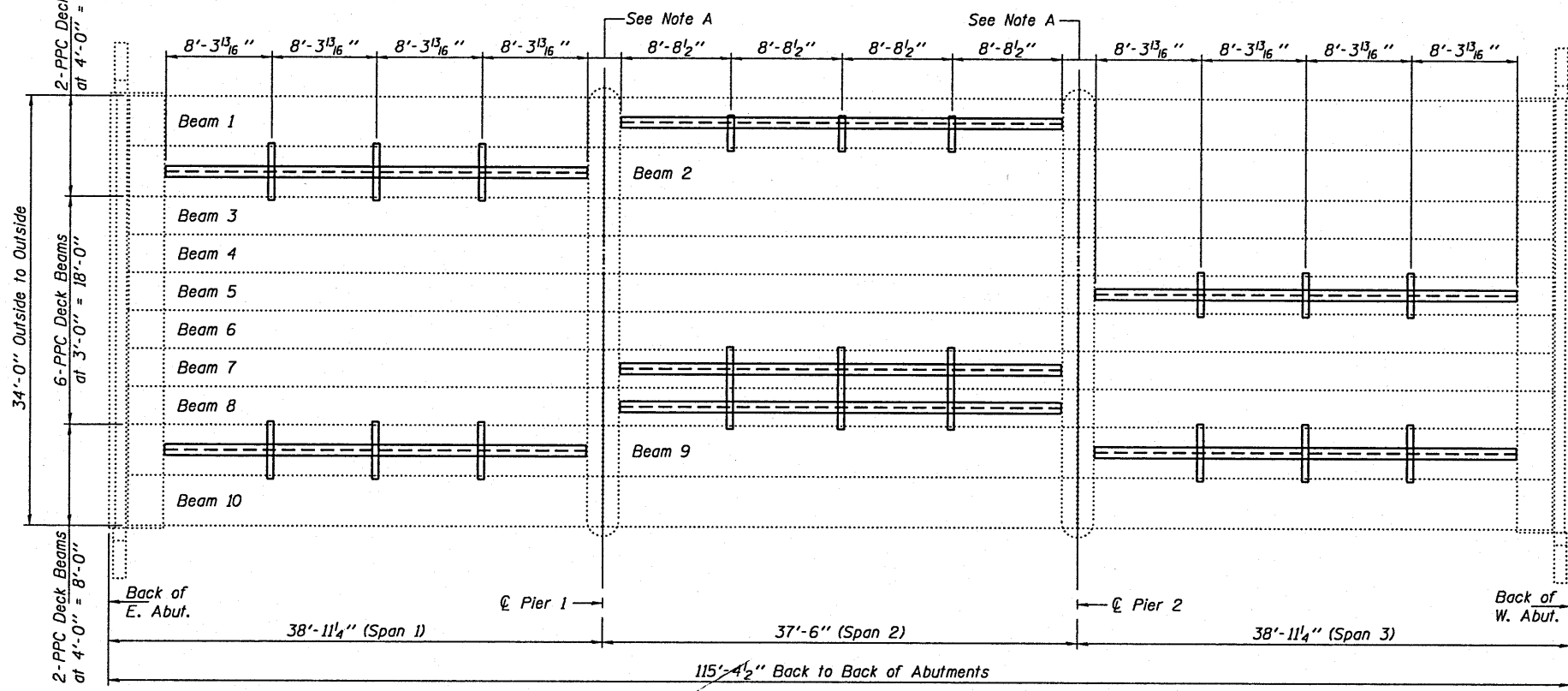
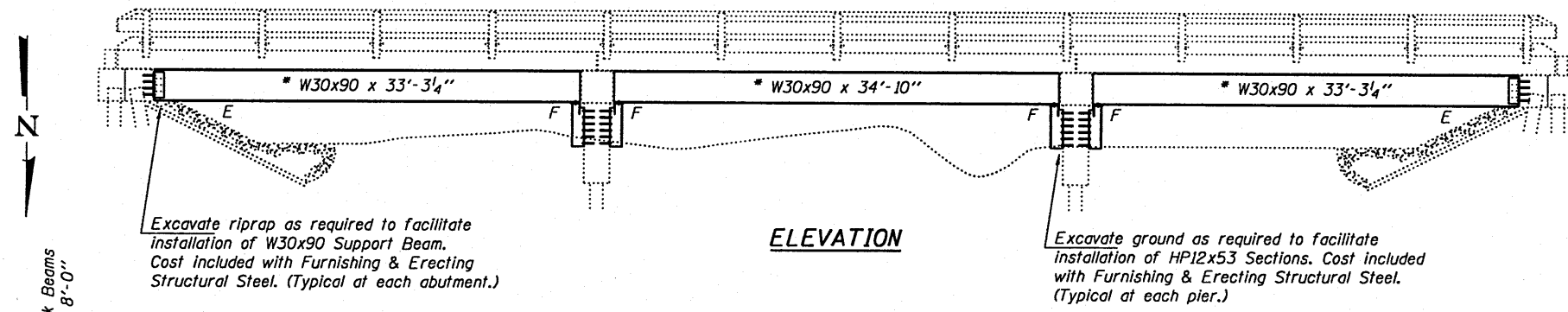
FILE NAME *	USER NAME = swartzw	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, GENERAL NOTES AND SUMMARY OF QUANTITY</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\swartzw\d0239550\d77	502-ahh-index.dgn	DRAWN -	REVISED -			823	D-7 BEAM REPAIR 2011-2	WAYNE	4	2
	PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED -							
	PLOT DATE = 9/2/2010	DATE -	REVISED -							
						ILLINOIS FED. AID PROJECT				

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's proposed section is different from the one specified in the plans. (Min.  $S_x = 245 \text{ in}^3$ )

Note A:  
 ☉ Transverse tie R's (3 per span). Place additional shims at midpoints between tie R's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.

**GENERAL NOTES**

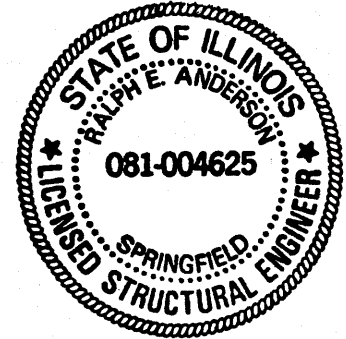
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and 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 at the unit price bid for the work.  
 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.  
 See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods; Minimum embedment 9".  
 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.  
 The cost of epoxy grouting threaded rods on the pier cap, abutments and beams shall be included with Furnishing and Erecting Structural Steel.  
 The Contractor has the option of using used steel. See Special Provisions.



**TRANSVERSE TIE R'S**  
 R A 1/2" x 2'-10" x 6" (3 Req'd)  
 R B 1/2" x 3'-6" x 6" (3 Req'd)  
 R C 1/2" x 4'-6" x 6" (9 Req'd)  
 R D 1/2" x 6'-6" x 6" (3 Req'd)

**TOTAL BILL OF MATERIAL**

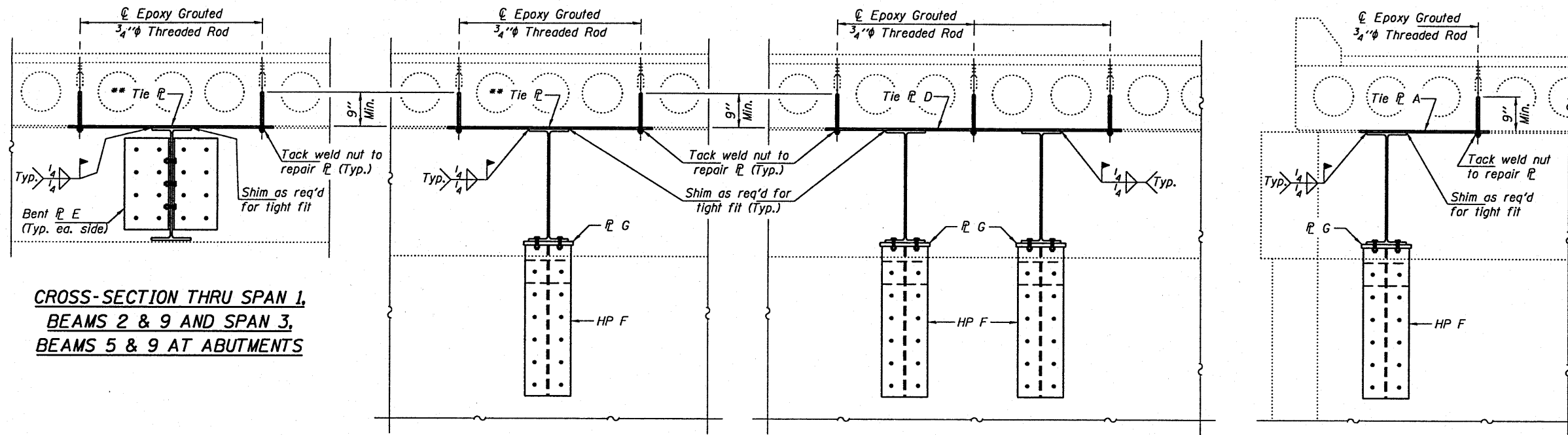
ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	25,250



Expires: November 30, 2012

DESIGNED - <i>V. H. Oelsz</i>	EXAMINED - <i>Ralph E. Anderson</i>	DATE - NOVEMBER 15, 2010	<b>STATE OF ILLINOIS          DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION          SN 096-0063</b>	F.A.P. RTE. 823	SECTION D7 BEAM REPAIR 2011-2	COUNTY WAYNE	TOTAL SHEETS 4	SHEET NO. 3
CHECKED - <i>Kyle M. Steffen</i>	PASSED - <i>Ralph E. Anderson</i>				CONTRACT NO. 74502				
DRAWN - <i>ADY</i>					[ILLINOIS] FED. AID PROJECT				
CHECKED - <i>ADY</i>									

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SHEET NO. 1 OF 2 SHEETS



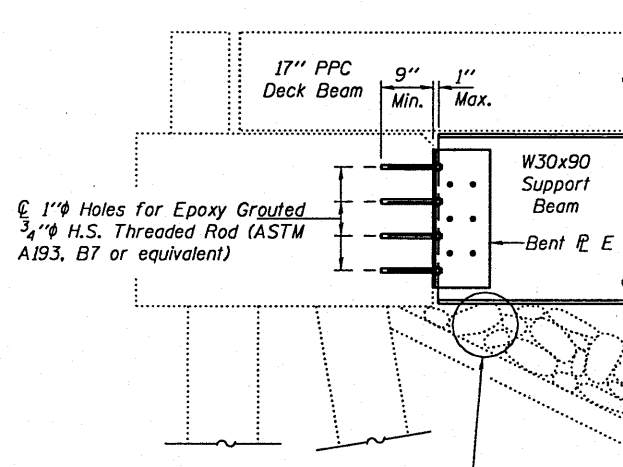
**CROSS-SECTION THRU SPAN 1,  
BEAMS 2 & 9 AND SPAN 3,  
BEAMS 5 & 9 AT ABUTMENTS**

**CROSS-SECTION THRU SPAN 1,  
BEAMS 2 & 9 AND SPAN 3,  
BEAMS 5 & 9 AT PIERS**

**CROSS-SECTION THRU  
SPAN 2, BEAMS 7 & 8**

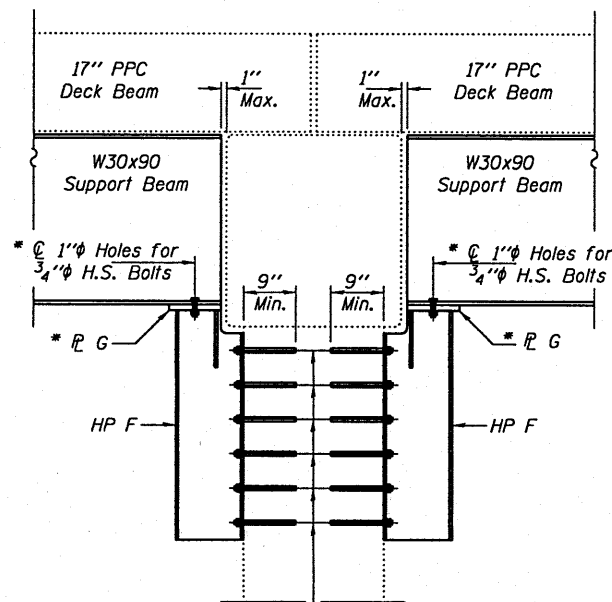
**CROSS-SECTION THRU  
SPAN 2, BEAM 1**

\*\* Tie R B (Span 3, Beam 5)  
Tie R C (Span 1, Beams 2  
& 9; Span 3, Beam 9)



Excavate riprap as required to facilitate installation of W30x90 Support Beam. Cost included with Furnishing & Erecting Structural Steel. (Typical at each abutment.)

**TYPICAL SECTION THRU ABUTMENTS**

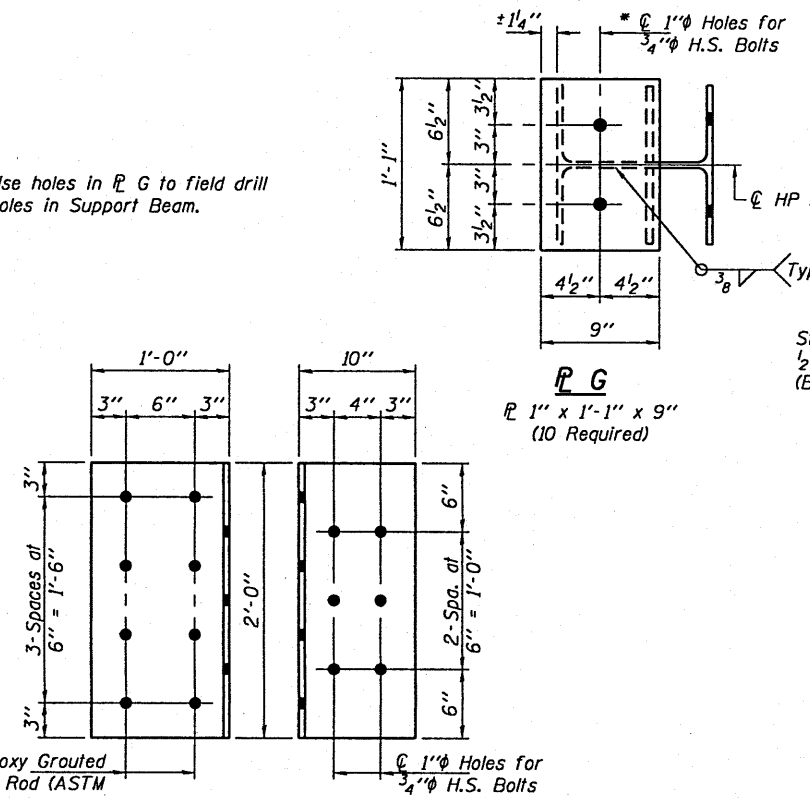


1" Holes for Epoxy Grouted 3/4" H.S. Threaded Rod (ASTM A193, B7 or equivalent)

1" Holes for Epoxy Grouted 3/4" H.S. Threaded Rod (ASTM A193, B7 or equivalent)

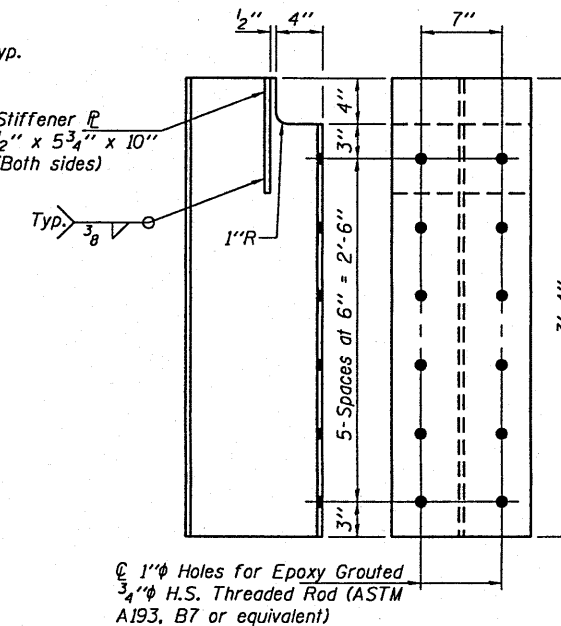
**TYPICAL SECTION THRU PIERS**

\* Use holes in R G to field drill holes in Support Beam.



**BENT R E**

R 1/2" x 1'-10" x 2'-0"  
(8 Required)



**HP F**

HP12x53 x 3'-4"  
(10 Required)

DESIGNED - VHV	EXAMINED - <i>Carl Koenig</i>	DATE - NOVEMBER 15, 2010
CHECKED - ADY	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Ralph E. Anderson</i>	
CHECKED - VHV ADY	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

P.P.C. DECK BEAM SUPPORT DETAILS  
SN 096-0063

SHEET NO. 2 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BEAM REPAIR 2011-2	WAYNE	4	4
CONTRACT NO. 74502				
ILLINOIS FED. AID PROJECT				