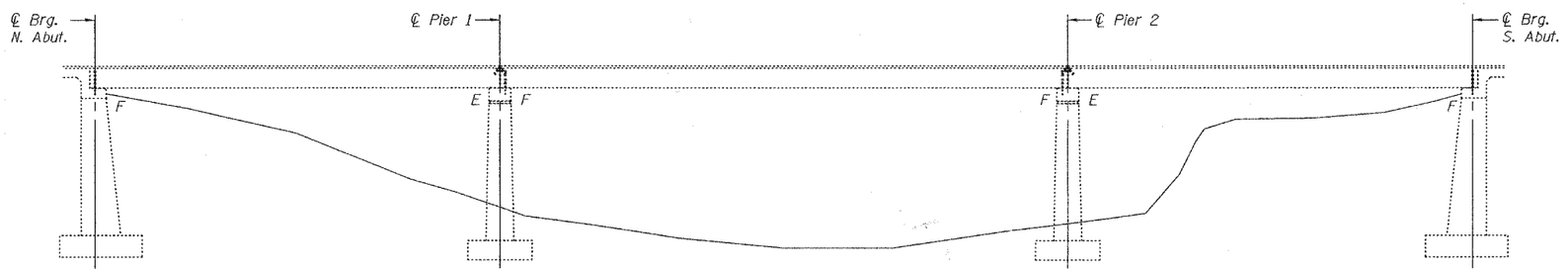
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

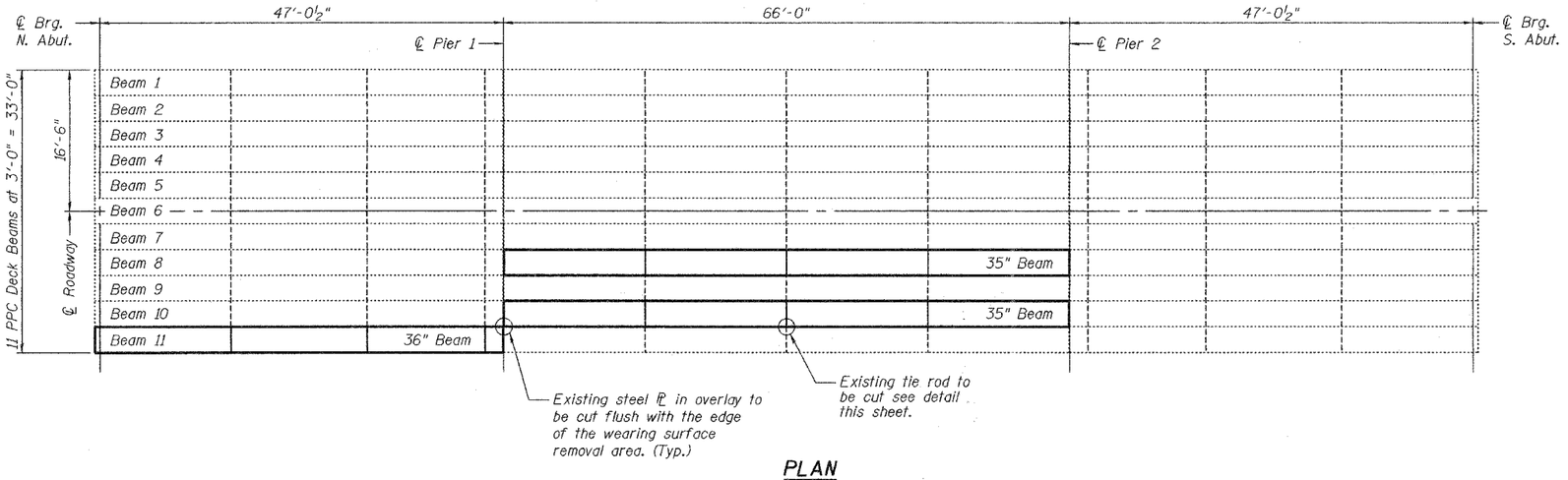
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Henry	-	5
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
4 SHEETS

Contract Number: 64D73



ELEVATION

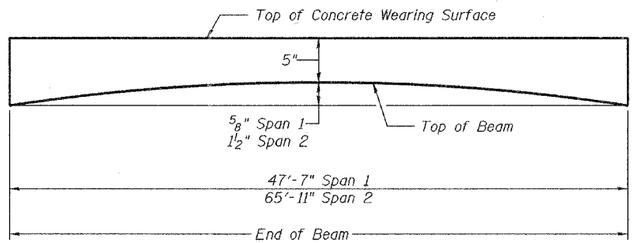


PLAN

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
f'c = 5,000 psi (Concrete Wearing Surface)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½" ϕ low lax strands)
f'si = 201,960 psi (½" ϕ low lax strands)



ANTICIPATED INITIAL CAMBER DIAGRAM

GENERAL NOTES

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to manufacturer's specifications prior to another coat of zinc. This work shall be performed by the producer and included with the cost of the beam.

Any damage done to the bridge during beam removal shall be repaird by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

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.

Temporary Concrete Barrier should only be anchored into the overlay and not into the PPC Deck Beams.

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

If the contractor's procedure for existing beam removal or placement of new 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 new or 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. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

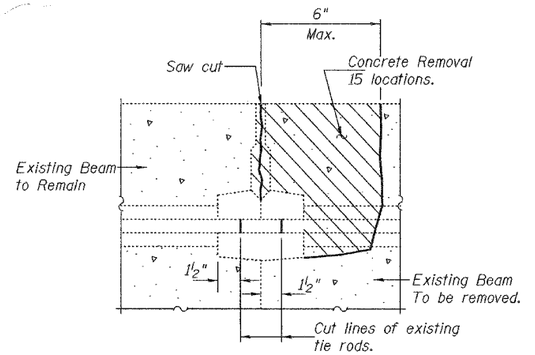
The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the existing profile grade and beam camber.

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

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.



BEAM REMOVAL DETAIL AT TRANSVERSE TIES

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Remove Existing PPC Deck Beams	Sq. Ft.	538
PPC Deck Beams (27" Depth)	Sq. Ft.	527
Concrete Removal	Cu. Yd.	4.4
Furnishing and Erecting Structural Steel	Pound	310 ⚠
Asbestos Bearing Pad Removal	Each	1
Removing and Re-erecting Existing Railing	Foot	48
Reinforcement Bars, Epoxy Coated	Pound	1,790
Concrete Wearing Surface 5"	Sq. Yd.	92
Mechanical Splicers	Each	180

DESIGNED	Adviar T. Hallaway VIA
CHECKED	
DRAWN	
CHECKED	AJB

June 21, 2007
EXAMINED
REPAIR PLANS UNIT CHIEF
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · RALPH E. ANDERSON · 081-004625 · LICENSED STRUCTURAL ENGINEER · SPRINGFIELD

Expires: November 30, 2008

⚠ REVISED 7/19/07

PLAN AND ELEVATION
S.B.I. RT. 82
HENRY COUNTY
SN 037-0071

SLT-92-001-07