

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 770	ΔΔ	Moultrie	7	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract Number: 74309
ΔΔ D7 Beam Repair 2008-6

GENERAL NOTES

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.

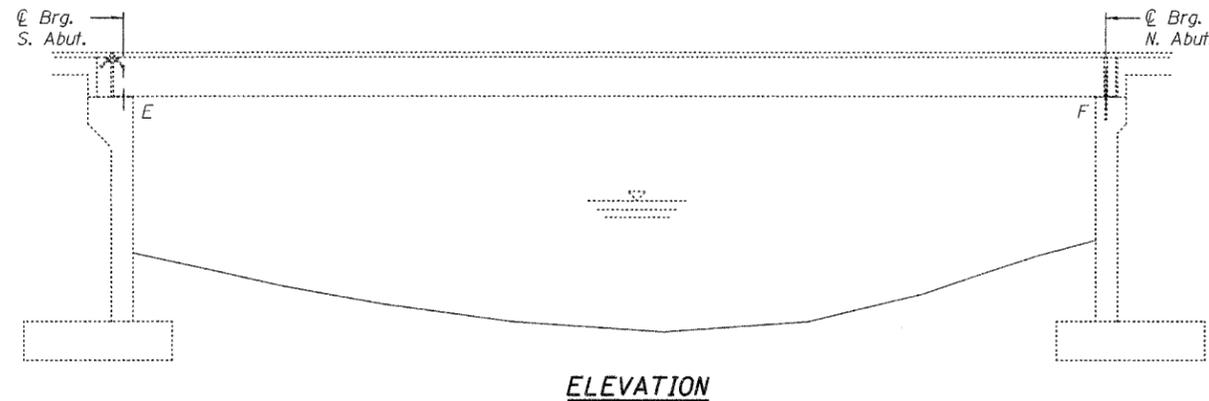
If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed 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.

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

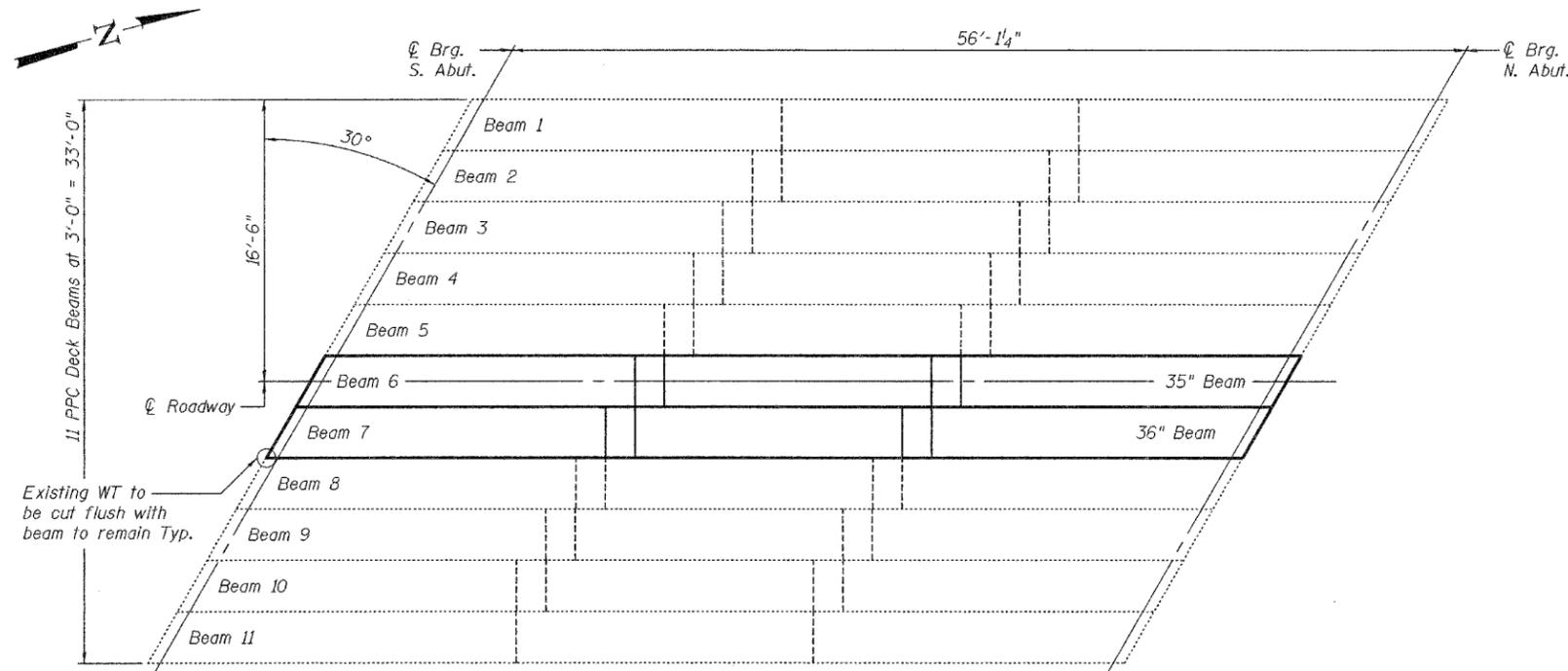
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

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.

The Temporary Concrete Barrier shall be anchored into the overlay and not the PPC Deck Beams.



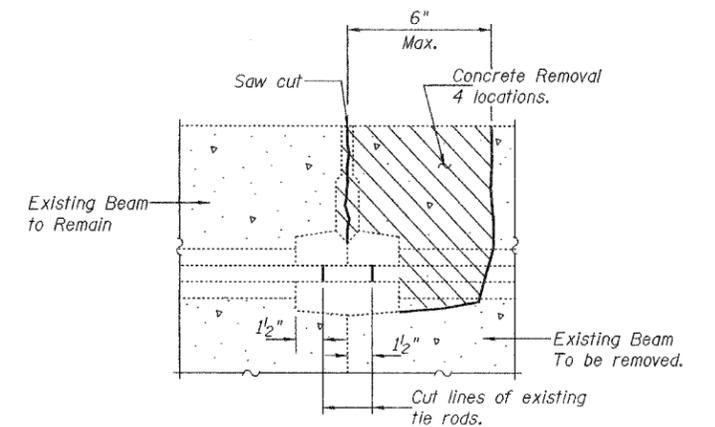
ELEVATION



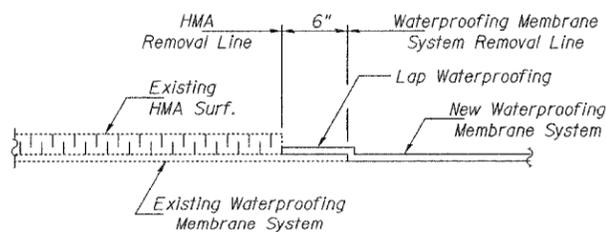
PLAN

**DESIGN STRESSES
PRECAST UNITS**

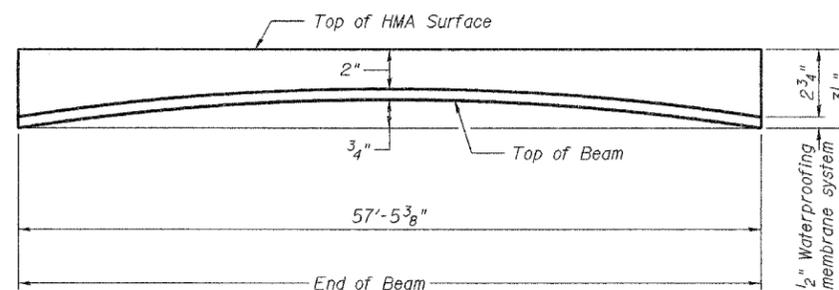
$f'c = 6,000 \text{ psi}$
 $f'ci = 5,000 \text{ psi}$
 $f's = 270,000 \text{ psi } (1/2" \phi \text{ low lax strands})$
 $f'si = 201,960 \text{ psi } (1/2" \phi \text{ low lax strands})$



**BEAM REMOVAL DETAIL
AT TRANSVERSE TIES**



WATERPROOFING TREATMENT



ANTICIPATED INITIAL CAMBER DIAGRAM

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
HMA Surface Removal	Sq. Yd.	6.8
HMA Surface Course, Mix C N90	Tons	6.0
Removal of Existing PPC Deck Beams	Sq. Ft.	344.7
PPC Deck Beams (Depth = 27")	Sq. Ft.	339.9
Waterproofing Membrane System	Sq. Yd.	45.1
PC Mortar Fairing Course	Foot	172.3
Asbestos Bearing Pad Removal	Each	2

**PLAN AND ELEVATION
F.A.P. RT. 770
MOULTRIE COUNTY
SN 070-0036**

DESIGNED	<i>[Signature]</i>
CHECKED	Victor A. Veliz
DRAWN	<i>[Signature]</i>
CHECKED	AJB

May 9, 2008
EXAMINED *[Signature]*
PASSED *[Signature]*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES



Expires: November 30, 2008