STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SBI 34		POPE	21	5	SHEET NO. 1
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		3 SHEETS

Contract Number: 78018

ELEVATION

DESIGN STRESSES
PRESTRESS UNITS

$f'c = 5000$ psi
$f'ci = 4000$ psi
$f's = 270000$ psi ($\frac{1}{2}''\phi$ low lax strands)
$f'si = 201960$ psi ($\frac{1}{2}''\phi$ low lax strands)

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. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of each fascia beam. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

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.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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.

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

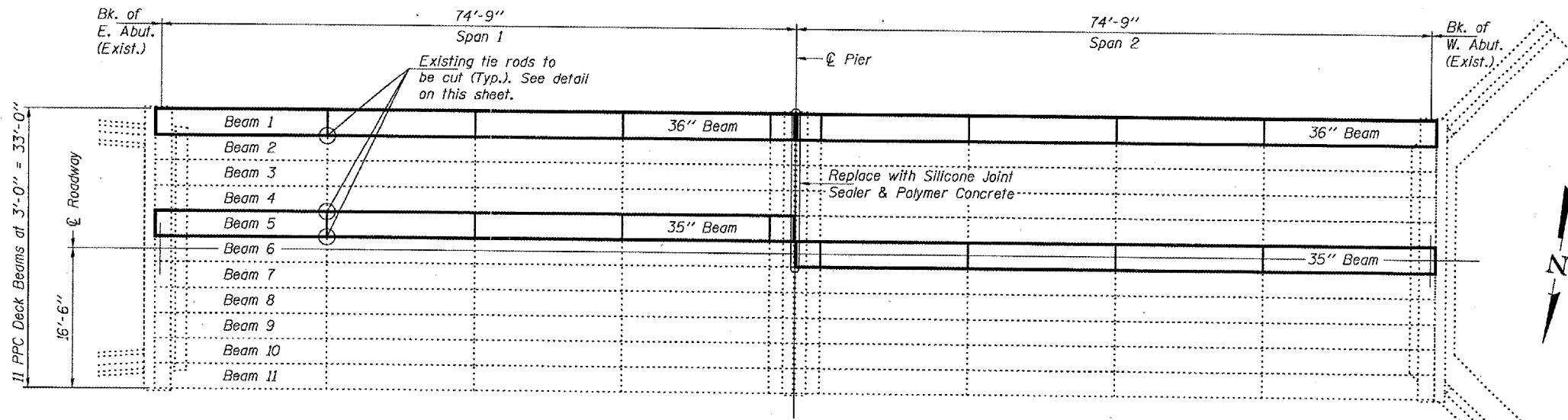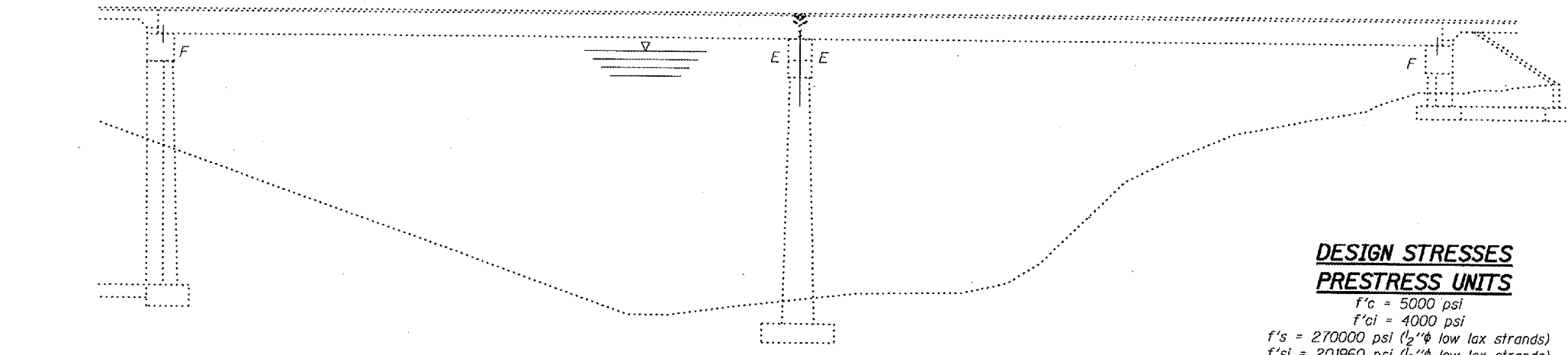Reinforcement bars designated (E) shall be epoxy coated.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with PPC Deck Beams (33").

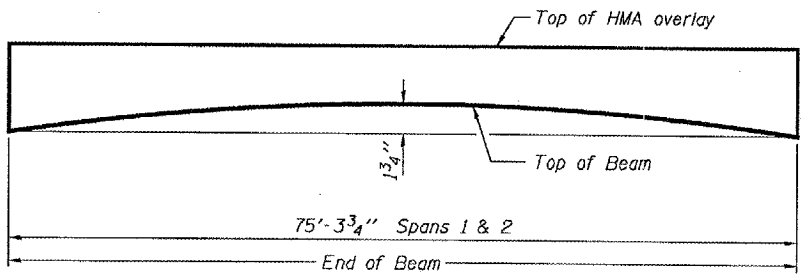Temporary concrete barrier shall only be anchored into the overlay and not the PPC Deck Beams.
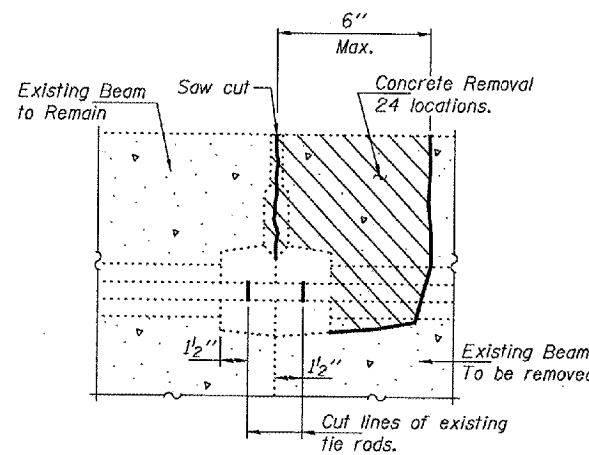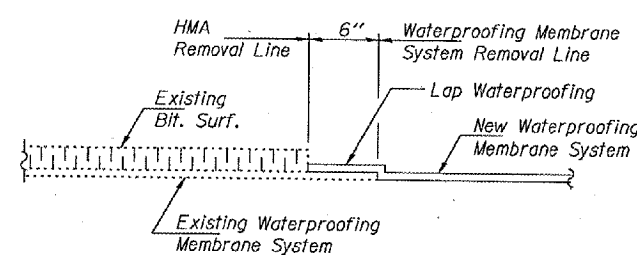
PLAN

ANTICIPATED INITIAL CAMBER DIAGRAM

BEAM REMOVAL DETAIL
AT TRANSVERSE TIES

WATERPROOFING TREATMENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
HMA Surface Removal	Sq. Yd.	25.3
Waterproofing Membrane System	Sq. Yd.	110
Removal of Existing PPC Deck Beams	Sq. Ft.	904
HMA Surface Course, Mix "C", N90	Tons	18.5
PC Mortar Fairing Course	Foot	452
PPC Deck Beams (33" Depth)	Sq. Ft.	892
Concrete Superstructure	Cu. Ft.	5.4
Protective Coat	Sq. Yd.	48.8
Asbestos Bearing Pad Removal	Each	8
Reinforcement Bars Epoxy Coated	Pound	240
Removing and Re-Erecting Existing Railing	Foot	151
Silicone Joint Sealer, 2½"	Foot	18
Polymer Concrete	Cu. Ft.	2.9

DESIGNED	Victor H. Velt
CHECKED	Adrian T. Holloway
DRAWN	baliva
CHECKED	VHV ATH

NOVEMBER 14, 2007

EXAMINED ___ ENGINEER OF STRUCTURAL SERVICES

PASSED ___ ENGINEER OF BRIDGES AND STRUCTURES

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

Expires: November 30, 2008

PLAN AND ELEVATION
SBI 34 OVER
BIG GRAND PIERRE CR
POPE COUNTY
SN 076-0002

...\deck_beams_fy08\0760002.dgn 11/14/2007 10:26:34 AM