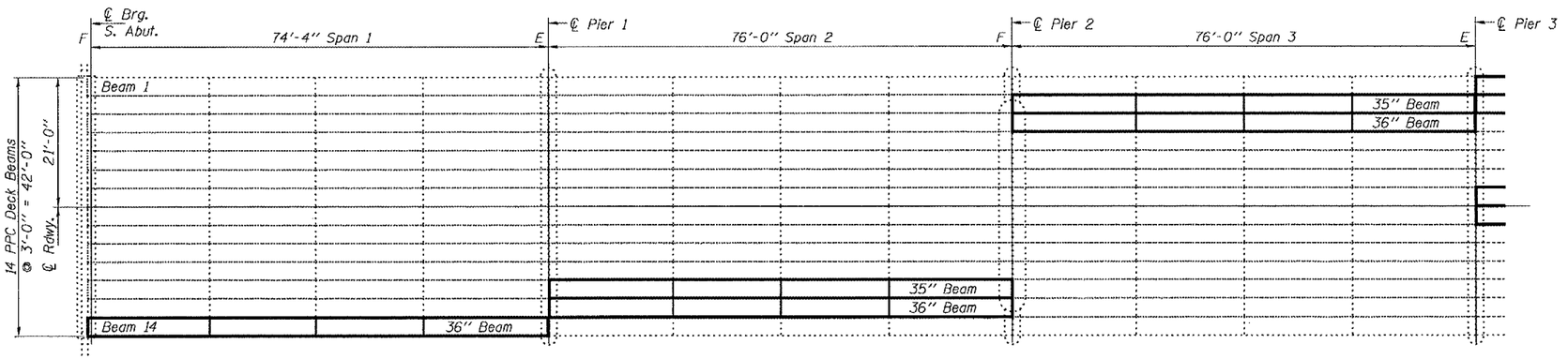
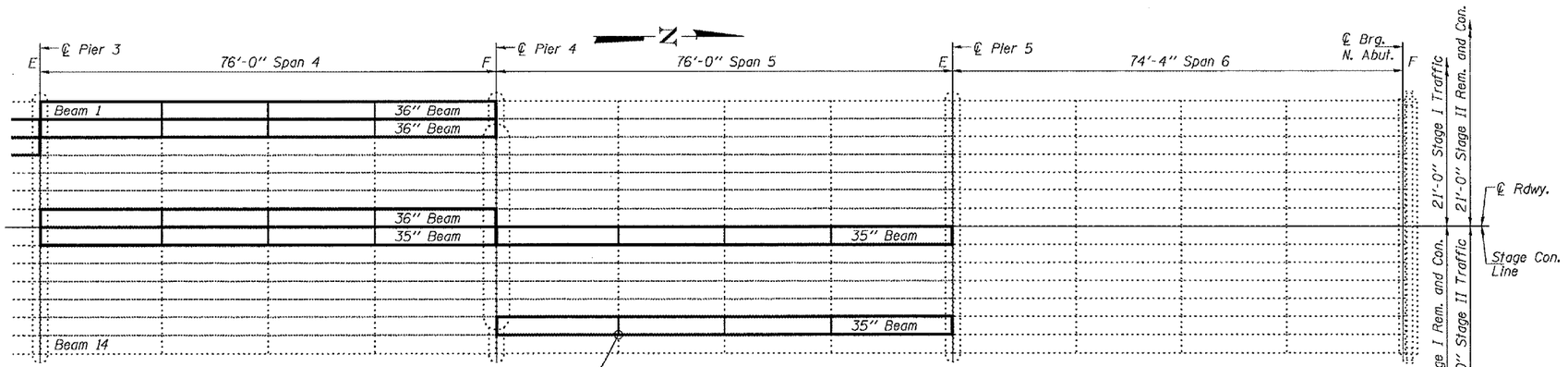
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 36		MC DONOUGH	13	9
FED.ROAD DIST. NO. 7		ILLINOIS	FED. RD PROJECT-	

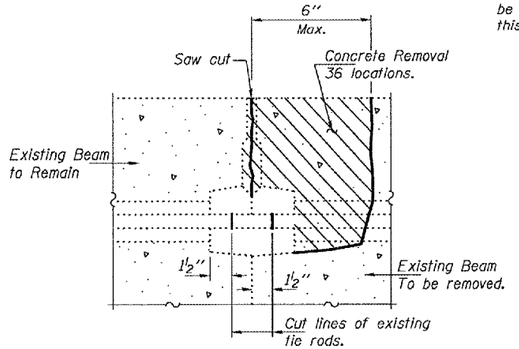
SHEET NO. 1
5 SHEETS

Contract Number: 68760

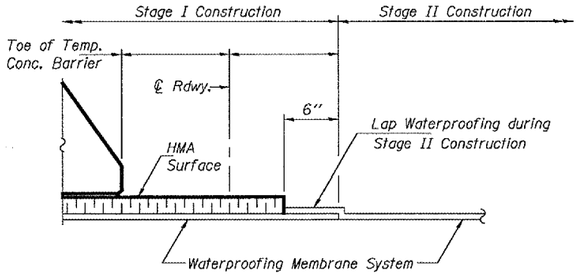




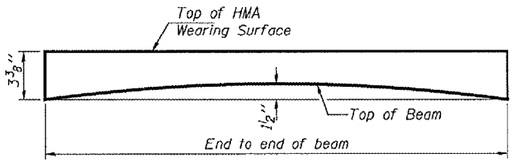
PLAN



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION



ANTICIPATED INITIAL CAMBER DIAGRAM

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 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 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.

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	2501
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2469
HMA Surface Removal	Sq. Yd.	69.5
HMA Surface Course Mix "D" N50	Tons	43.6
PC Mortar Fairing Course	Foot	1213
Asbestos Bearing Pad Removal	Each	11
Waterproofing Membrane System	Sq. Yd.	318.2
Silicone Joint Sealer	Foot	30
Polymer Concrete	Cu. Ft.	3.1
Concrete Removal	Cu. Yd.	18.7
Concrete Superstructure	Cu. Yd.	18.3
Reinforcement Bars, Epoxy Coated	Pound	1560

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
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)

DESIGNED	Adrian T. Holloway
CHECKED	
DRAWN	baliva
CHECKED	ATH AJB

NOVEMBER 7, 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
FA 36
MCDONOUGH COUNTY
SN 055-0010

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