

B.M.: Chiseled "□" SE Corner of Bridge, Str. No. 069-0022  
Sta. 726+71.1, 15.7' Rt., Elev. 615.78 (NAVD 88)

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 753	*	MORGAN	40	20
FEL. ROAD DIST. NO. 1		ILLINOIS	PROJECT	
* 128BR-1				CONTRACT NO. 72A89

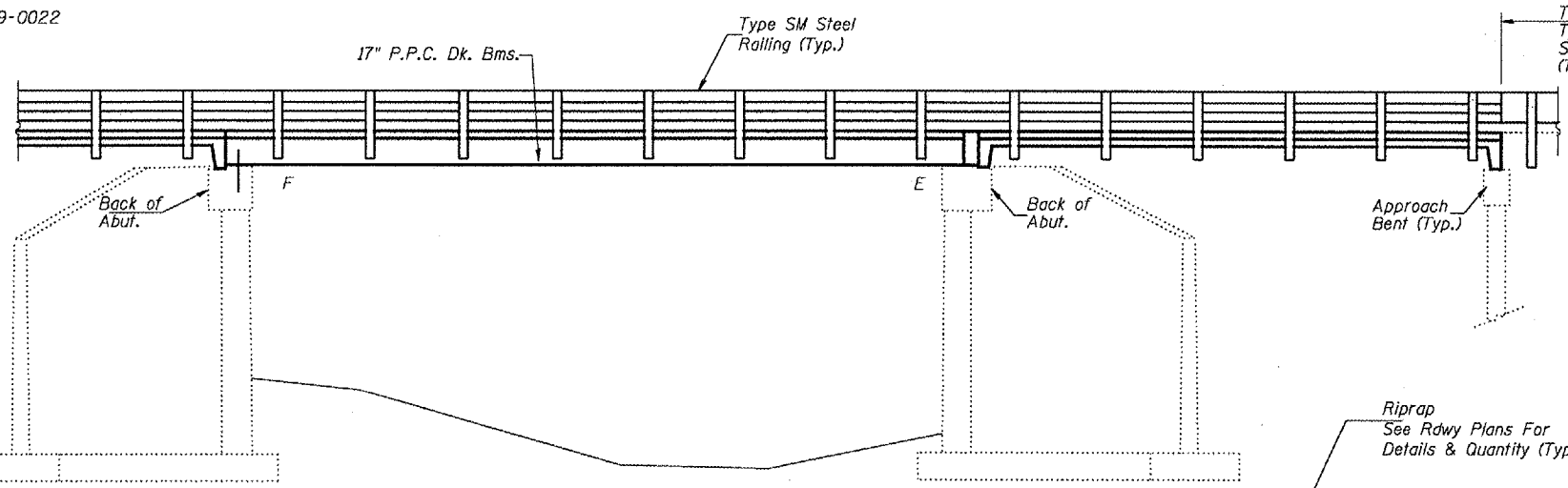
**EXISTING STRUCTURE:**

SN 069-0022 Built in 1934, Re-Built in 1971.  
A single span 17" deep prestressed concrete deck beam superstructure, 44'-7 1/2" back to back abutments and 33'-0" clear roadway width with steel barrier rails on concrete closed abutments.

The existing superstructure is to be replaced with PPC Deck Beams and 5" (min.) Concrete Wearing Surface.

Traffic shall be maintained by utilizing Stage Construction.

No Salvage



**GENERAL NOTES**

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

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.

**No in-stream work will be allowed on this project.**

The cut strands of 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 the 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 the fascia beams. 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 minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for new profile grade and beam camber.

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 for removal and replacement of the superstructure.

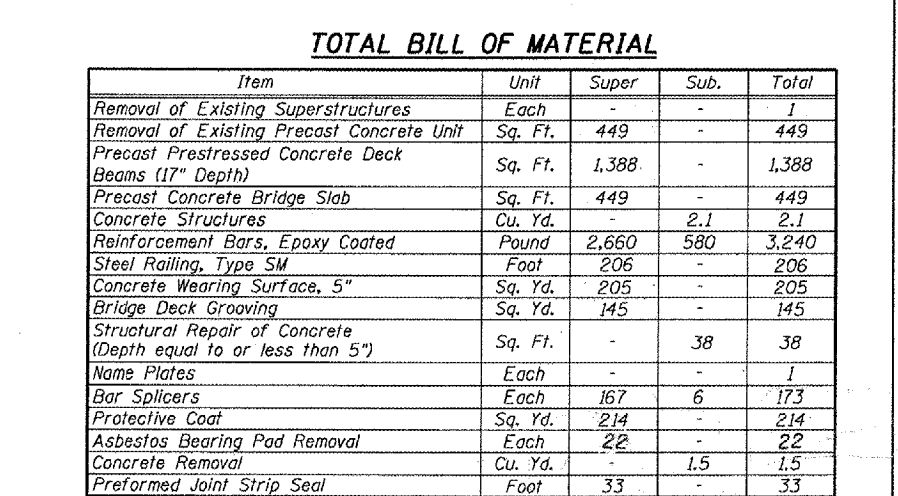
Repair of the abutments shall be completed prior to placement of the new deck beams.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the new beams, 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 beams. To distribute load to multiple beams and protect the concrete, 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. Prior to placement of the timber mats the following shall be done: placement and tightening of the transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

Protective Coat shall be applied to the top and edges of the concrete wearing surface. Reinforcement bars designated (E) shall be epoxy coated.

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures	Each	-	-	1
Removal of Existing Precast Concrete Unit	Sq. Ft.	449	-	449
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,388	-	1,388
Precast Concrete Bridge Slab	Sq. Ft.	449	-	449
Concrete Structures	Cu. Yd.	-	2.1	2.1
Reinforcement Bars, Epoxy Coated	Pound	2,660	580	3,240
Steel Railing, Type SM	Foot	206	-	206
Concrete Wearing Surface, 5"	Sq. Yd.	205	-	205
Bridge Deck Grooving	Sq. Yd.	145	-	145
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	-	38	38
Name Plates	Each	-	-	1
Bar Splicers	Each	167	6	173
Protective Coat	Sq. Yd.	214	-	214
Asbestos Bearing Pad Removal	Each	22	-	22
Concrete Removal	Cu. Yd.	-	1.5	1.5
Preformed Joint Strip Seal	Foot	33	-	33



**NOTE:**  
See Roadway plans for profile grade information.

STATION 726+50.29  
REBUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. 753  
SEC 128BR-1  
LOADING HS20  
STRUCTURE NO. 069-0022

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**DESIGN STRESSES**  
**FIELD UNITS**  
f'c = 3,500 p.s.i.  
f'ci = 5,000 p.s.i. (Concrete Wearing Surface)  
fy = 60,000 p.s.i. (Reinforcement)

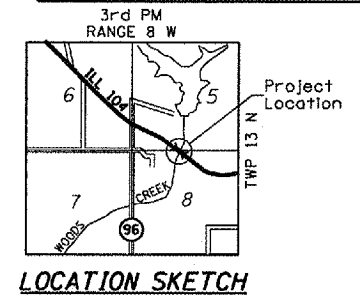
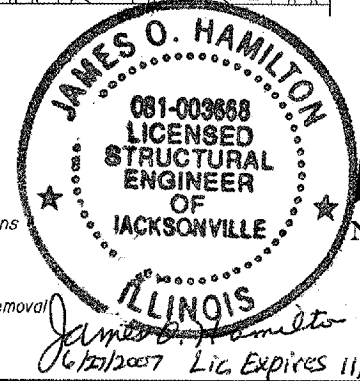
**LOADING HS20-44**  
Allow 50#/sq. ft. future wearing surface.

**DESIGN SPECIFICATIONS**  
2002 AASHTO

**PRECAST PRESTRESSED UNITS**  
f'c = 5,000 p.s.i.  
f'ci = 4,000 p.s.i.  
f's = 270,000 p.s.i. (1/2" ϕ low relaxation strands)  
f'si = 201,960 p.s.i. (1/2" ϕ low relaxation strands)

**PRECAST NON-PRESTRESSED UNITS**  
f'c = 4,500 p.s.i.

- INDEX TO SHEETS**
- General Plan
  - Stage Construction Details
  - Temporary Concrete Barrier For Stage Construction
  - Approach Details
  - Deck Beam Details
  - Overlay Details & Typical Sections
  - Preformed Joint Strip Seal
  - Steel Railing, Type SM
  - Superstructure Details
  - Abutment Concrete Repair & Removal
  - Abutment Details
  - Bar Splicer Assembly Details



**GENERAL PLAN**  
F.A.P. 753 (ILL 104) OVER  
WOODS CREEK  
SECTION 128BR-1  
MORGAN COUNTY  
STATION 726+50.29  
STR. NO. 069-0022

HUTCHISON ENGINEERING, INC.  
JACKSONVILLE, ILLINOIS  
Rev: \_\_\_\_\_ Date: \_\_\_\_\_

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

**NAME PLATE**  
See Std. 515001

Attach new name plate to back side of 8" rail element. Clean and re-locate existing name plate adjacent to new name plate. Cost included in the cost of "Name Plates".

Rev. 9-4-07