

B.M.: Chiseled "□" SE Corner of Bridge, Str. No. 037-0130
Sta 680+50.5, 17.8 Ft., Elev. 620.64

Existing Structure: One span PPC Deck Beam superstructure, R.C. Closed Abutments. Built as SBI 78, 125 BC, Henry County (SN 037-0062).
Rebuilt in 1978 as FA 22, Sec 125BR-2 (SN 037-0130).
Existing superstructure to be removed and replaced with PPC Deck Beams and Con. Wear Surf.

One lane traffic to be maintained using Stage Construction.

No Salvage.

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	13
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		

SHEET NO. 1
OF 13 SHEETS

CONTRACT NO. 64047

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 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 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.

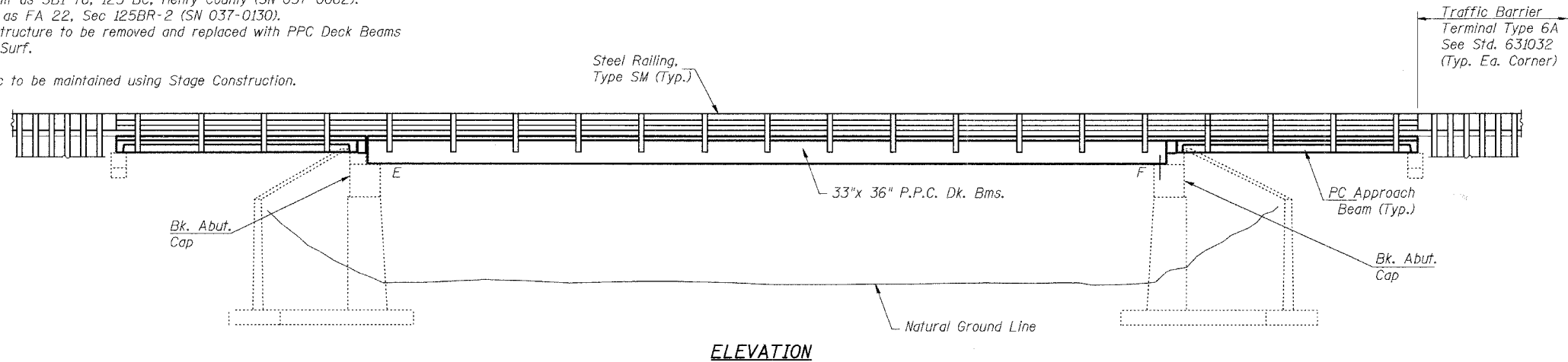
If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois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

Reinforcement bars designated (E) shall be epoxy coated.

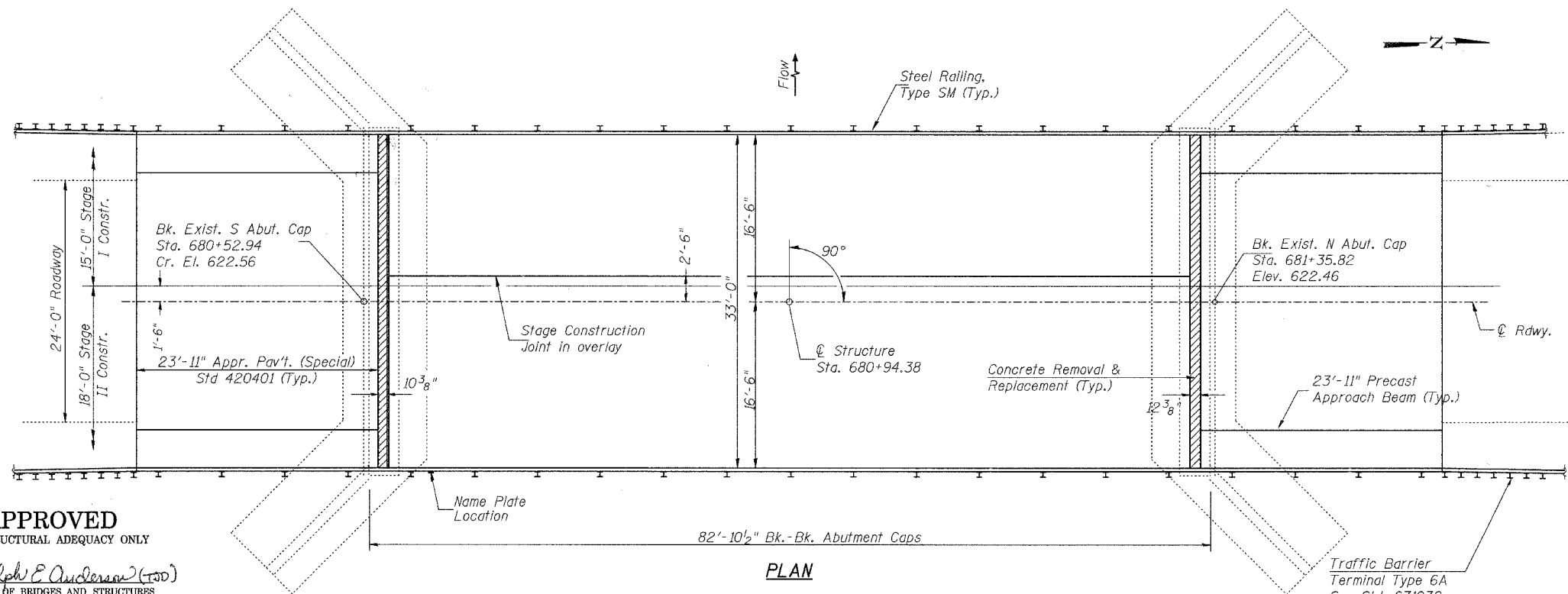
Protective Coat shall be applied to the top and edges of the concrete wearing surface.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures	Each	1	-	1
Removal of Existing Precast Concrete Unit	Sq. Ft.	359	-	359
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,618	-	2,618
Precast Concrete Bridge Slab	Sq. Ft.	359	-	359
Protective Coat	Sq. Yd.	299	-	299
Reinforcement Bars, Epoxy Coated	Pound	3,720	1,000	4,720
Steel Railing, Type SM	Foot	259	-	259
Concrete Wearing Surface, 5"	Sq. Yd.	291	-	291
Bridge Deck Grooving	Sq. Yd.	273	-	273
Structure Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	-	7	7
Name Plates	Each	1	-	1
Bar Splicers	Each	80	12	92
Asbestos Bearing Pad Removal	Each	11	-	11
Concrete Structures	Cu. Yd.	-	5.8	5.8
Concrete Removal	Cu. Yd.	-	4.5	4.5
Preformed Joint Strip Seal	Ft.	33	-	33



ELEVATION



PLAN

NOTE:
See Roadway plans for profile grade information.

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 p.s.i.
f'c = 5,000 p.s.i. (Concrete Wearing Surface)
fy = 60,000 p.s.i. (Reinforcement)

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.

LOADING HS20-44

Allow 25#/Sq Ft Future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

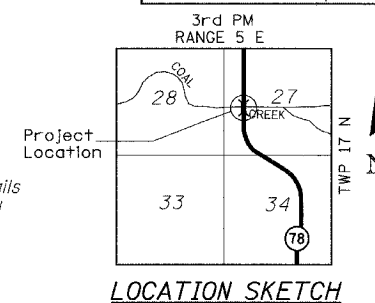
STATION 680+94.38
REBUILT 200 BY
STATE OF ILLINOIS
F.A. RT. 22 SEC. (125BR-2)D
LOADING HS20
STRUCTURE NO. 037-0130

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".

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 with CWS
- Steel Railing, Type SM with HMAWS
- Superstructure & Approach Bent Details
- Abutment Repair & Concrete Removal
- Abutment Details
- Bar Splicer Assembly Details



LOCATION SKETCH

GENERAL PLAN
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev: _____ Date: _____

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (T-00)
ENGINEER OF BRIDGES AND STRUCTURES



James O. Hamilton
3/14/2007
Lic. Expires 11/30/2008

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN