

BM: Chiseled Square in southeast corner of South Abutment Str. #037-0129
Sta. 881+95.06, 16.17' Rt. El. 615.94

EXISTING STRUCTURE:

The original structure, SN 037-0061, was a single span thru truss built in 1930 as Sec. 125-BC, SBI Rt. 78, was rebuilt in 1979 as a 3-span PPC Deck Beam structure, SN 037-0129, built as FA Rte. 22, Sec. 125 BR-1, Sta. 690+05.00. The existing 3-span structure is 143'-4" back to back of abutments and the existing deck is 32'-0" out to out. The substructure consists of concrete closed abutments and two solid stem pile bent piers.

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.

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	80	47
FED. ROAD DIST. NO. 1 ILLINOIS PROJECT				
*(125BR-1D) CONTRACT NO. 64010				

SHEET NO. 1
15 SHEETS

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

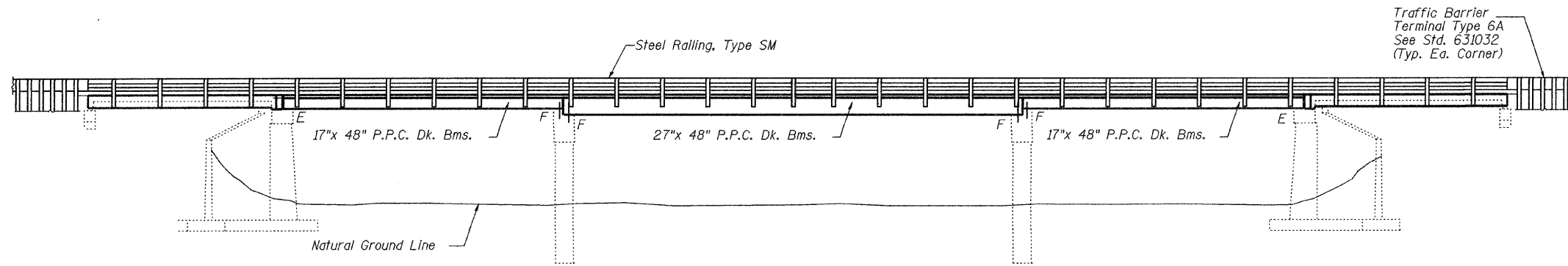
The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

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

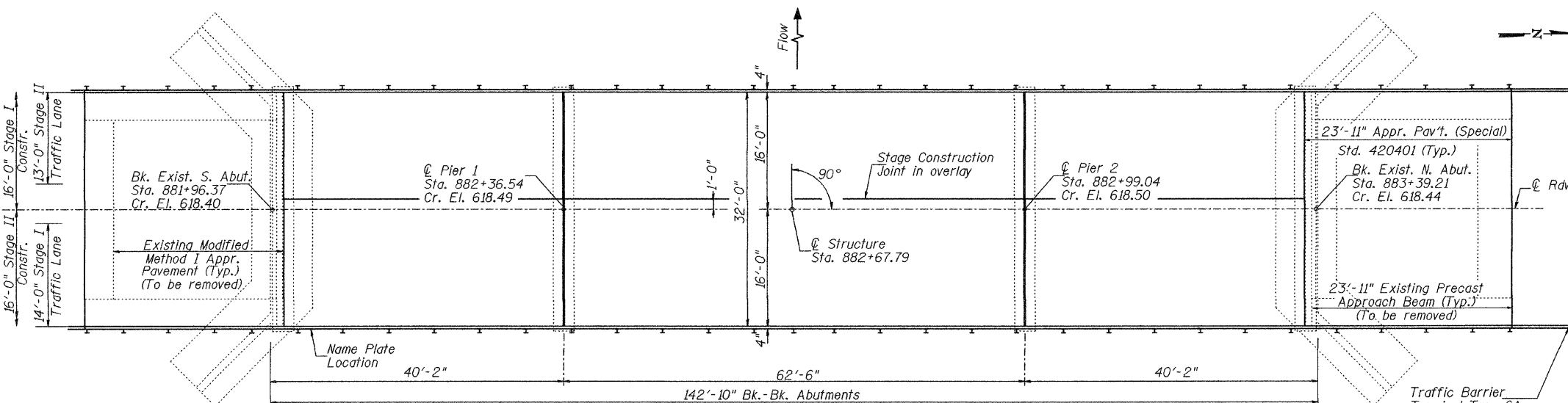
If the Contractor's procedures for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying structural adequacy of the beams for the proposed loads. Cost included with existing superstructures.

Reinforcement bars designated (E) shall be epoxy coated.

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



ELEVATION



PLAN

NOTE:
See Roadway plans for profile grade information.

V.P.T. Sta. 881+96.37 Elev. 618.40	V.P.T. Sta. 882+36.54 Elev. 618.49	V.P.T. Sta. 882+99.04 Elev. 618.50	V.P.T. Sta. 883+39.21 Elev. 618.44
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PROFILE GRADE

DESIGNED	BAN
CHECKED	JOH
DRAWN	TD
CHECKED	BAN

STATION 882+67.79
REBUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 22 SEC. (125BR-1D)
LOADING HS20
STRUCTURE NO. 037-0129

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".

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

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ p.s.i.
 $f'_c = 5,000$ p.s.i. (Concrete Wearing Surface)
 $f_y = 60,000$ p.s.i. (Reinforcement)

PRECAST PRESTRESSED UNITS

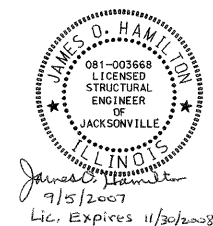
$f'_c = 5,000$ p.s.i.
 $f'_{ci} = 4,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " ϕ low relaxation strands)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " ϕ low relaxation strands)

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures	Each	1	-	1
Removal of Existing Precast Concrete Units	Sq. Ft.	359	-	359
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2,459	-	2,459
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	2,006	-	2,006
Protective Coat	Sq. Yd.	512	-	512
Reinforcement Bars, Epoxy Coated	Pound	6,350	810	7,160
Steel Railing, Type SM	Foot	379	-	379
Concrete Wearing Surface, 5"	Sq. Yd.	497	-	497
Bridge Deck Grooving	Sq. Yd.	496	-	496
Structural Repair of Concrete (Depth equal to or less than 5 in)	Sq. Ft.	-	235	235
Name Plates	Each	1	-	1
Bar Splicers	Each	141	12	153
Asbestos Bearing Pad Removal	Each	32	-	32
Concrete Structures	Cu. Yd.	4.1	-	4.1
Concrete Removal	Cu. Yd.	4.3	-	4.3
Preformed Joint Strip Seal	Foot	64	-	64

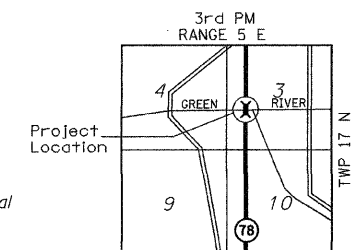
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Rachel E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



INDEX TO SHEETS

- General Plan
- Stage Construction Details
- Temporary Concrete Barrier For Stage Construction
- Deck Beam Details - Spans 1 & 3
- Deck Beams Details - Span 2
- Overlay Details & Typical Section
- Preformed Joint Strip Seal
- Steel Railing, Type SM
- Superstructure Details
- Abutment Repairs & Concrete Removal
- Pier 1 Repairs
- Pier 2 Repairs
- Abutment Details
- Pier Details
- Bar Splicer Assembly Details



LOCATION SKETCH

GENERAL PLAN
FAP 22 (ILLINOIS ROUTE 78)
OVER GREEN RIVER
SEC. (125BR-1D)
HENRY COUNTY
STATION 882+67.79
STR. NO. 037-0129

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: _____ Date: _____