ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 885	104BR-1	Union	37	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
13 SHEETS

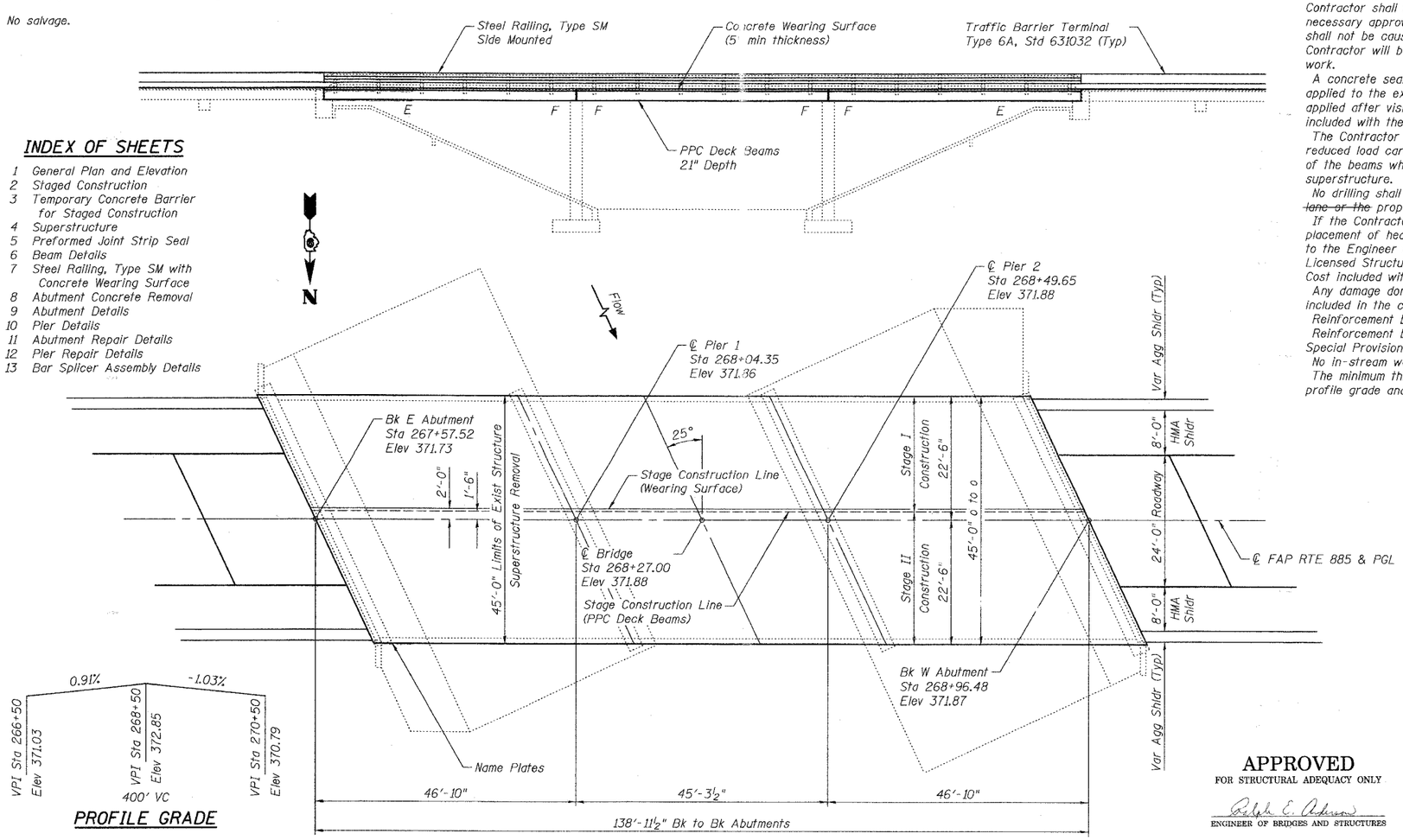
Contract # 78025

Benchmark: Chiseled square on N.E. headwall SN 091-0059. Elevation 371.279

Existing Structure: SN 091-0059 built in 1974 Sta 268+27.00 as FA Rte 51 Section 104B-1. Structure is a 3-span precast prestressed concrete deck beam superstructure 138'-11½" bk to bk abutments and 45'-0" out to out deck on concrete pile supported stub abutments and solid wall concrete hammerhead piers on timber pile supported footings. 25° Skew RF.
Bridge superstructure shall be removed and replaced with new beams and reinforced concrete wearing surface. Stage construction shall be utilized allowing one lane of traffic during construction.

No salvage.

INDEX OF SHEETS



PROFILE GRADE

STATION 268+27.00
REBUILT 20__ BY
STATE OF ILLINOIS
FAP RTE 885 SEC 104BR-1
LOADING HS20
STRUCTURE NO. 091-0059

NAME PLATE

See Std. 515001

The existing name plate shall be cleaned and relocated next to the new name plate. Cost included with Name Plates.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS - EXISTING

fc = 1,400 psi (Substructure)
fs = 20,000 psi (Reinforcement)

DESIGN STRESSES

FIELD UNITS - PROPOSED

f'c = 3,500 psi (Substructure)
f'c = 5,000 psi (Concrete wearing surface)
f'y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f'_s = 270,000 psi ($\frac{1}{2}$" ϕ Low Relaxation Strands)
f_{si} = 201,960 psi ($\frac{1}{2}$" ϕ Low Relaxation Strands)

LOADING HS 20-44

No allowance for future wearing surface.

GENERAL NOTES

Concrete Removal and Structural Repair of Concrete shall occur prior to placement of the new deck beams.

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.

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 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.

No drilling shall be permitted into the ~~existing precast deck beams to be used for Stage I traffic lane or the~~ proposed deck beams.

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of 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 the structural adequacy of the beams for the proposed loads. Cost included with Precast Prestressed Concrete Deck Beams (21" Depth).

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 Superstructures.

Reinforcement bars designated (E) shall be epoxy coated.

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

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

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

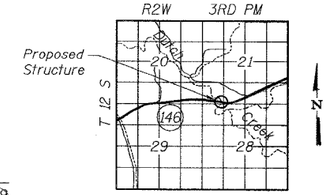
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	6103		6103
Reinforcement Bars, Epoxy Coated	Pound	8510	1130	9640
Steel Railing, Type SM	Foot	272		272
Name Plates	Each	1		1
Bar Splicers	Each	138	12	150
Concrete Wearing Surface, 5"	Sq. Yd.	679		679
Protective Coat	Sq. Yd.	679		679
Bridge Deck Grooving	Sq. Yd.	678		678
Preformed Joint Strip Seal	Foot	100		100
Structural Repair of Concrete (Depth Equal to or Less Than 5 In.)	Sq. Ft.		44	44
Epoxy Crack Injection	Foot		138	138
Asbestos Bearing Pad Removal	Each		60	60
Concrete Structures	Cu. Yd.		6.2	6.2
Concrete Removal	Cu. Yd.		6.3	6.3
Concrete Sealer	Sq. Ft.		510	510

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

LICENSED STRUCTURAL ENGINEER
MARY COOMBE BLOXDORF 4859 SPRINGFIELD
STATE OF ILLINOIS

ILLINOIS STRUCTURE NO 4859
EXPIRES: 11-30-08
DATE: 12-03-07



LOCATION SKETCH

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE
GENERAL PLAN AND ELEVATION

PROJECT
IL ROUTE 146 OVER DUTCH CREEK
FAP ROUTE 885 SECTION 104BR-1
UNION COUNTY
STATION 268+27.00
STRUCTURE NUMBER 091-0059

PROJECT NO. 06056-5
SCALE
DATE 11/26/07
DRAWN BY TFG/CFC
CHECKED BY MCB
DRAWING NO. 1

COOMBE-BLOXDORF P.C.
Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

OF 13 SHTS

PLOT DATE = 12/03/2007
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