

Bench Mark: RR Spike in Power Pole 80' Right of Sta. 103+09.00 Elev. 512.10.

Existing Structure: S.N. 060-0150 was built in 1939 as S.A. Rte. 7 Sec. 68-B-15D at Sta. 98+33.25. In 1974 the superstructure was replaced, the substructure widened, and Pier Bents 2 & 3 were added. The existing three span structure consists of PPC deck beams on pile bent abutments and pile bent piers. The bk. to bk. abutments dimension measures 125'-11 1/2" while the O.-O. width measures 33'-0". The existing superstructure shall be replaced with PPC deck beams, and the substructure will be repaired with formed concrete repairs. Staging shall be used during construction.

No Salvage.

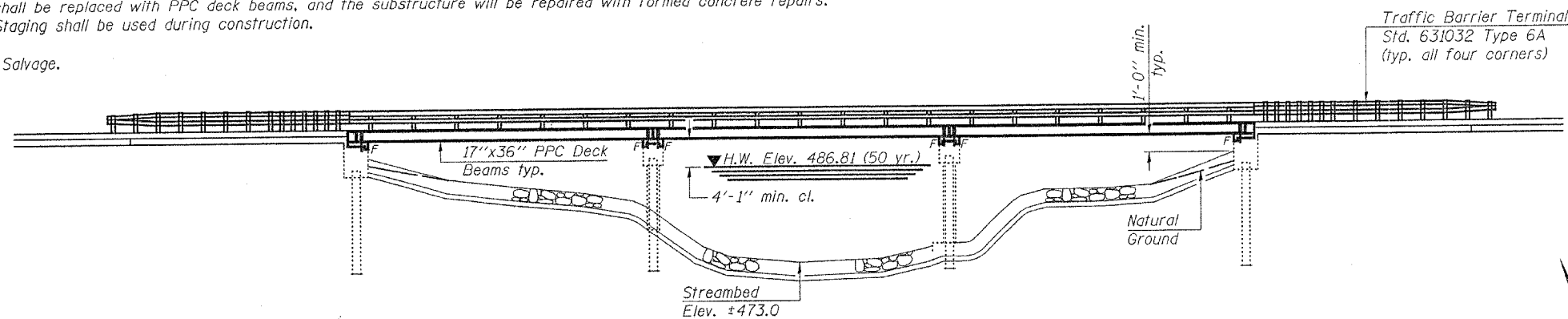
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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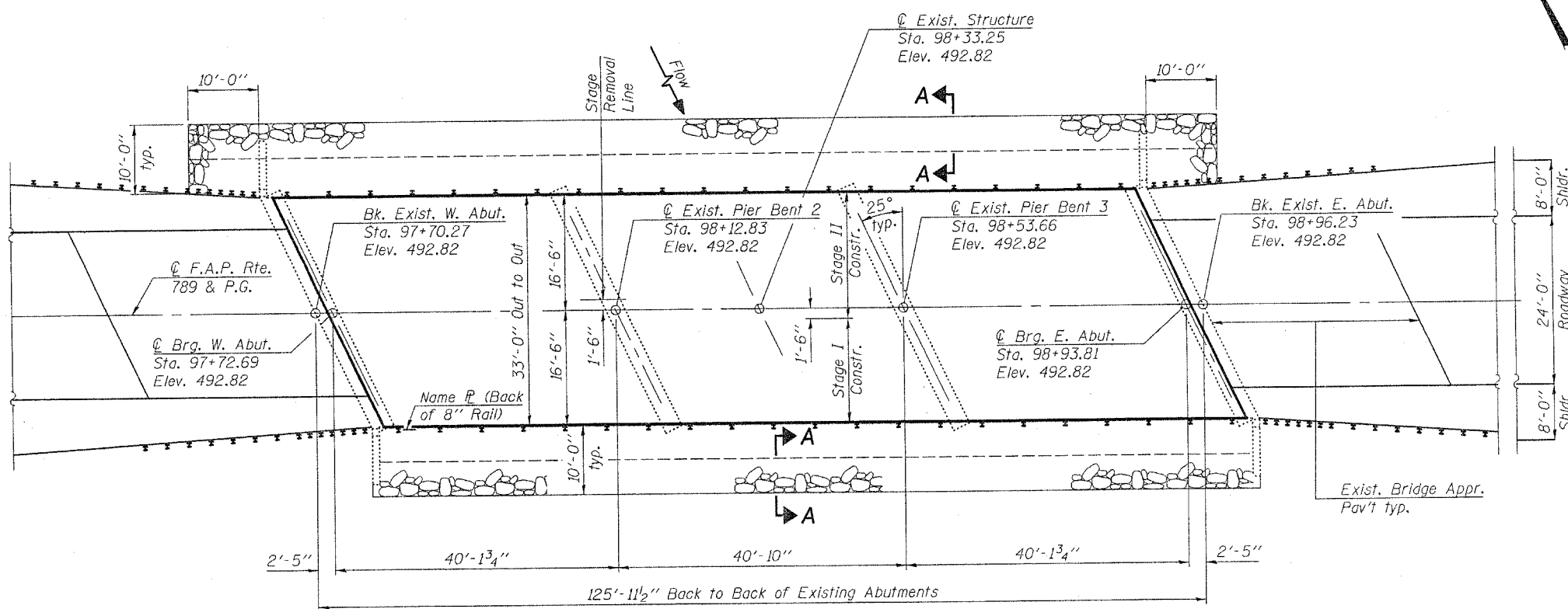
1. General Plan
2. Stage Construction Details
3. Temporary Concrete Barrier
4. Type SM Steel Bridge Rail Side Mounted
- 5.-7. Superstructure Details
8. West Abutment
9. East Abutment
10. Abutment Concrete Removal Details
11. Pier Bents
12. Substructure Repair Details

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 789	68-BR-1	MADISON	10	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

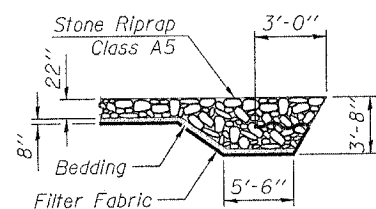
Contract #76896



ELEVATION



PLAN



SECTION A-A

STATION 98+33.25
REBUILT 200 BY
STATE OF ILLINOIS
FAP RT 789 - SEC 68-BR-1
LOADING HS20
STR. NO. 060-0150

NAME PLATE

See Std. 515001

WATERWAY INFORMATION

Drainage Area = 23.6 sq. mi. Low Grade Elev. 492.18 @ Sta. 97+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Exist.	Opening Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	10	4,720	487	487	486.81	2.97	2.97	489.78	489.78
Base	100	5,411	512	512	487.06	3.31	3.31	490.37	490.37
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	7,063	570	570	487.63	4.19	4.19	491.82	491.82

LOADING HS20-44 (New Construction)

No Allowance for Future Wearing Surface.

DESIGN SPECIFICATIONS (New Construction)

2002 AASHTO

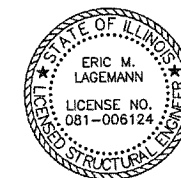
DESIGN STRESSES

FIELD UNITS

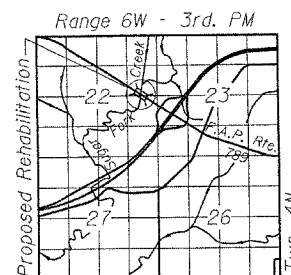
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax. strands)
 $f_{si} = 201,960$ psi (1/2" ϕ low lax. strands)



Eric Lagemann 5/10/20
Expires 11/30/2006



LOCATION SKETCH

GENERAL NOTES

The minimum thickness of Bituminous overlay shall be 2" and varies as required to adjust for the new profile grade and beam camber.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".

All Construction joints shall be bonded.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. 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 contractor is advised that the existing Precast Prestressed Concrete 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.

See sheet 2 of 12 for additional notes.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		764	764
Filter Fabric	Sq. Yd.		764	764
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		5.8	5.8
Concrete Structures	Cu. Yd.		13.9	13.9
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	4034		4034
Reinforcement Bars, Epoxy Coated	Pound		1320	1320
Steel Bridge Rail, Type SM	Foot	252		252
Name Plates	Each	1		1
Waterproofing Membrane System	Sq. Yd.	462		462
Portland Cement Mortar Fairing Course	Foot	1223		1223
Structural Repair of Concrete (Depth Equal to or less than 5")	Sq. Ft.		173.5	173.5
Bituminous Concrete Surface Course, Superpave, Mix "C", N70	Ton	52		52

GENERAL PLAN
ILLINOIS ROUTE 143 OVER
SUGAR FORK CREEK

F.A.P. ROUTE 789 - SECTION 68-BR-1
MADISON COUNTY
STATION 98+33.25
STRUCTURE NO. 060-0150

DESIGNED	EML
CHECKED	NJM
DRAWN	EML
CHECKED	NJM

HORNER & SHIFRIN, INC.
ENGINEERS ARCHITECTS PLANNERS