

Bench Mark: B.M. 4833-1 Disk on Northwest wingwall of SN. 023-0025. Sta. 1944+64.27, 17.29'Lt. Elevation = 598.27

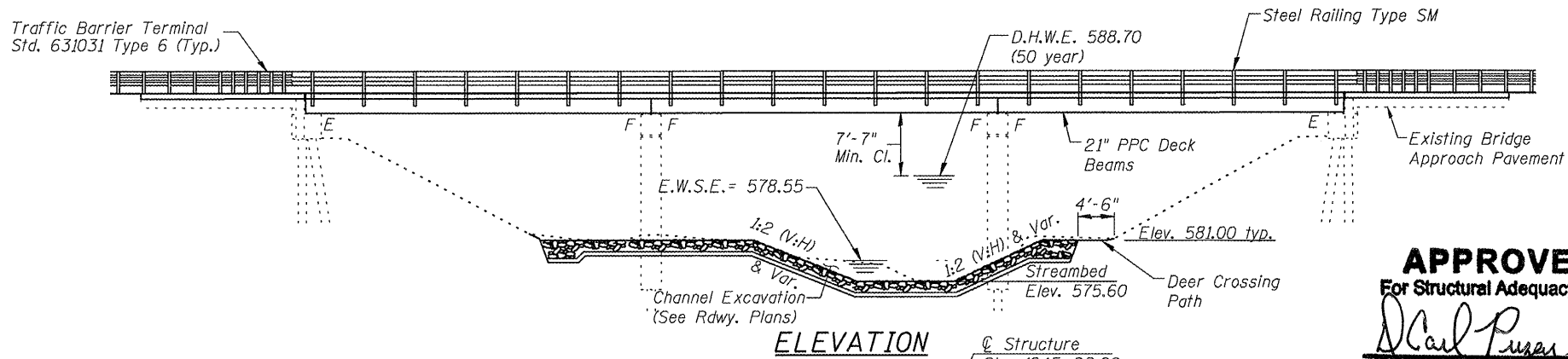
Existing Structure: S.N. 023-0025 built in 1981 as F.A.P. 79 Section 150-BR at Station 1945+28.00. The three simple span superstructure consists of P.P.C. deck beams with H.M.A. wearing surface. The substructures consists of open stub abutments supported on steel piles and solid encased pile bent piers supported on steel piles. The structure length measures 130'-1" bk-to-bk of abutments and 34'-0" out-to-out of deck with no skew. Existing deck beams shall be removed and replaced with precast prestressed concrete deck beams, a concrete wearing surface, and type SM steel railing. Existing piers shall be repaired.

Traffic to be maintained under stage construction.

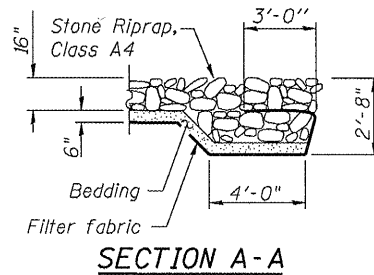
The existing steel beam bracing and connection plates supporting Beam 10 (Span 2) and Beam 1 (Span 3) shall be salvaged and transported to District 5 operations. Burn existing anchor bolts flush with existing concrete surface. Grind bolts smooth and seal with epoxy. Cost included in Removal of Existing Superstructure. Contact Carl Phillips at (217) 465-4181 two weeks prior to removal.

INDEX OF SHEETS

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- 7 21x36 PPC Deck Beam
- 8 21x36 PPC Deck Beam Details
- 9 Abutment and Retainer Details
- 10 Pier Concrete Repair Details
- 11 Bar Splicer Assembly and Mech. Splicer Details
- 12-15 Existing Bridge Plans



APPROVED
For Structural Adequacy Only
Carl Puzay
Engineer of Bridges & Structures



LOADING HL-93 (New Const.)

Loading HS20-44 (Existing Const.)
Allow 20 psf. for future wearing surface.

DESIGN SPECIFICATIONS (New Const.)

2010 AASHTO LRFD Bridge Design Specifications
1995 Seismic Retrofit Manual

DESIGN STRESSES

FIELD UNITS (NEW CONST.)

f'c = 3,500 psi
f'ci = 5,000 psi (C.W.S.)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" Low Lax Strands)
fpbt = 201,960 psi (1/2" Low Lax Strands)

FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock acceleration coefficient (A) = 0.05
Site Coefficient (S) = 1.2

STATION 1945+28.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. 323 SEC. 150BR-1
LOADING HL93
STR. NO. 023-0025

NAME PLATE

See Std. 515001

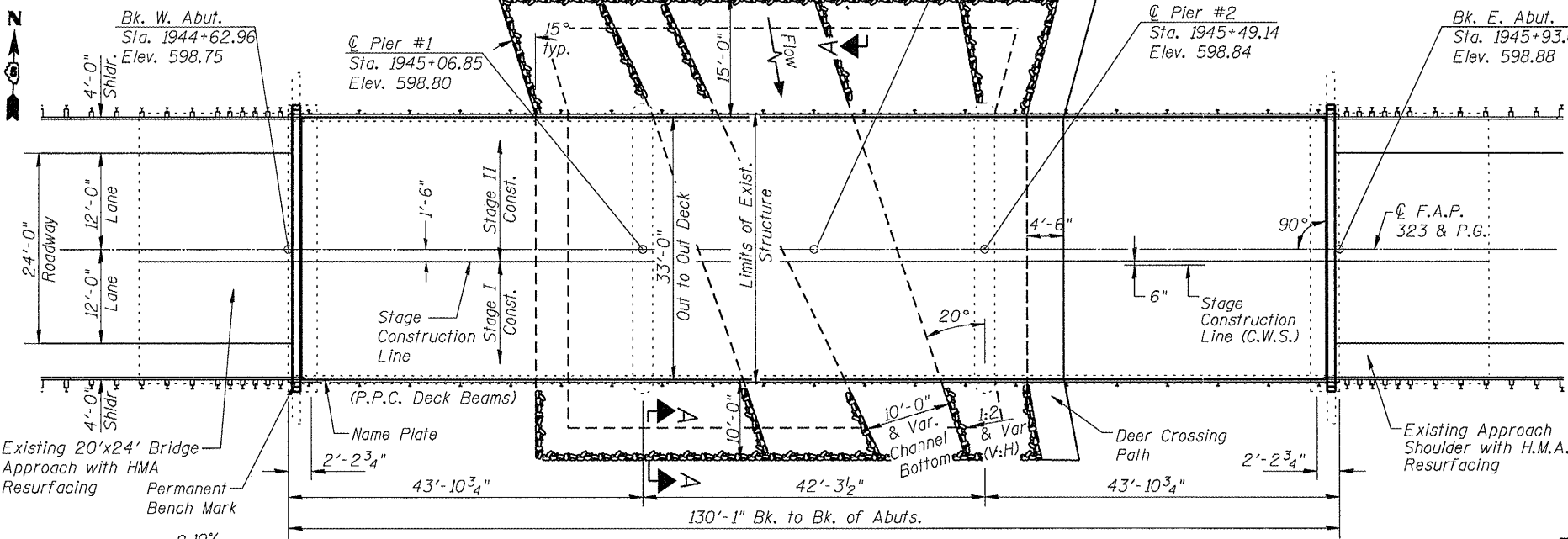
Note:
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

Permanent Benchmark shall be placed near the Name Plate. See General Note Z0038.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.*	Pier 1*	Pier 2*	E. Abut.*
	592.62	574.96	574.96	592.72

*Bottom of Existing Abutments and Piers



PLAN

WATERWAY INFORMATION

Drainage Area = 24.51 SQ. MI. Low Grade Elev. 598.35 @ Sta. 1945+49.65

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	2080	571	571	587.0	0.5	0.5	587.5	587.5
Base	50	3330	709	709	588.7	0.8	0.8	589.5	589.5
Max. Calc.	100	3890	761	761	589.3	0.9	0.9	590.2	590.2
	500	5240	886	886	590.7	1.2	1.2	591.9	591.9

10 year velocity through Existing Bridge = 4.25 ft/s
10 year velocity through Proposed Bridge = 4.25 ft/s

PROFILE GRADE F.A.P. RTE. 323

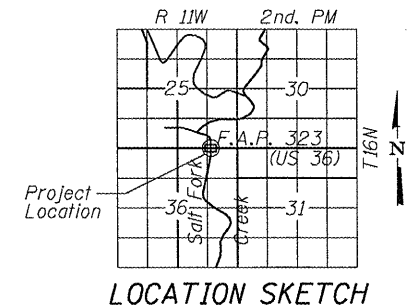
Along Center Roadway
The profile grade shows the final elevations after grinding. Up to 1/4" will be ground off the Concrete Wearing Surface and the abutment backwalls.

BLANK, WESSELINK, COOK & ASSOCIATES

ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

DESIGN FIRM NO. 184000894

Peter B. Bayles
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Structural Engineer License No. 081-006042
Expiration Date: 11/30/2012



GENERAL PLAN
US 36 OVER SALT FORK CREEK
F.A.P. 323 - SEC. 150BR-1
EDGAR COUNTY
STATION 1945+28.00
STRUCTURE NO. 023-0025

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REvised -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN SN 023-0025 SHEET NO. 1 OF 15 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED <i>RJC/SAL</i>	REvised -			323	150BR-1	EDGAR	48	18
		DRAWN <i>MLO</i>	REvised -			CONTRACT NO. 70609				
		CHECKED <i>PBB</i>	REvised -	ILLINOIS FED. AID PROJECT						