

BENCHMARK: Chiseled Square on top of Southwest Wingwall,  
SN 083-0040, Station 1582+86.00, 19.5' right, Elevation 365.87

EXISTING STRUCTURE: SN 083-0040 was originally built in 1932 as S.B.I. Route 143, Section 105C. The superstructure was replaced in 1976, a new center pier was added, and precast concrete bridge slabs were utilized to widen the approaches. The superstructure consists of two simple spans, 21" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles, and a single solid concrete encased pile bent pier supported on H-piles. The back-to-back abutments length is 102'-11<sup>3</sup>/<sub>4</sub>", the out-to-out width is 33'-0". The existing superstructure and the existing approach shoulder bridge slabs shall be removed and replaced utilizing stage construction.

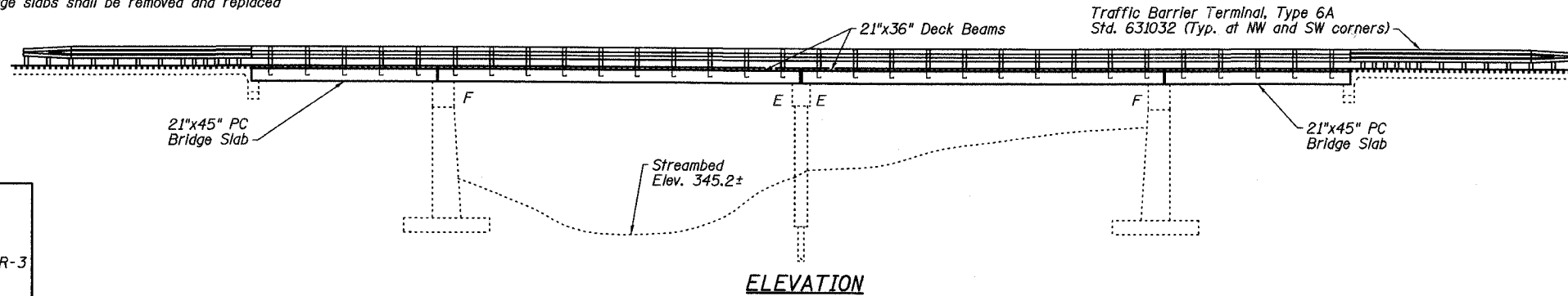
No salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
FAP 869	*	SALINE	44	12
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
98996			*105A)BR-1	

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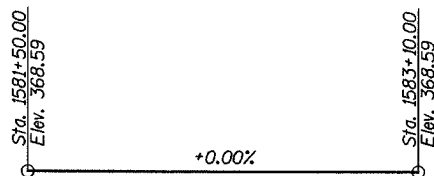
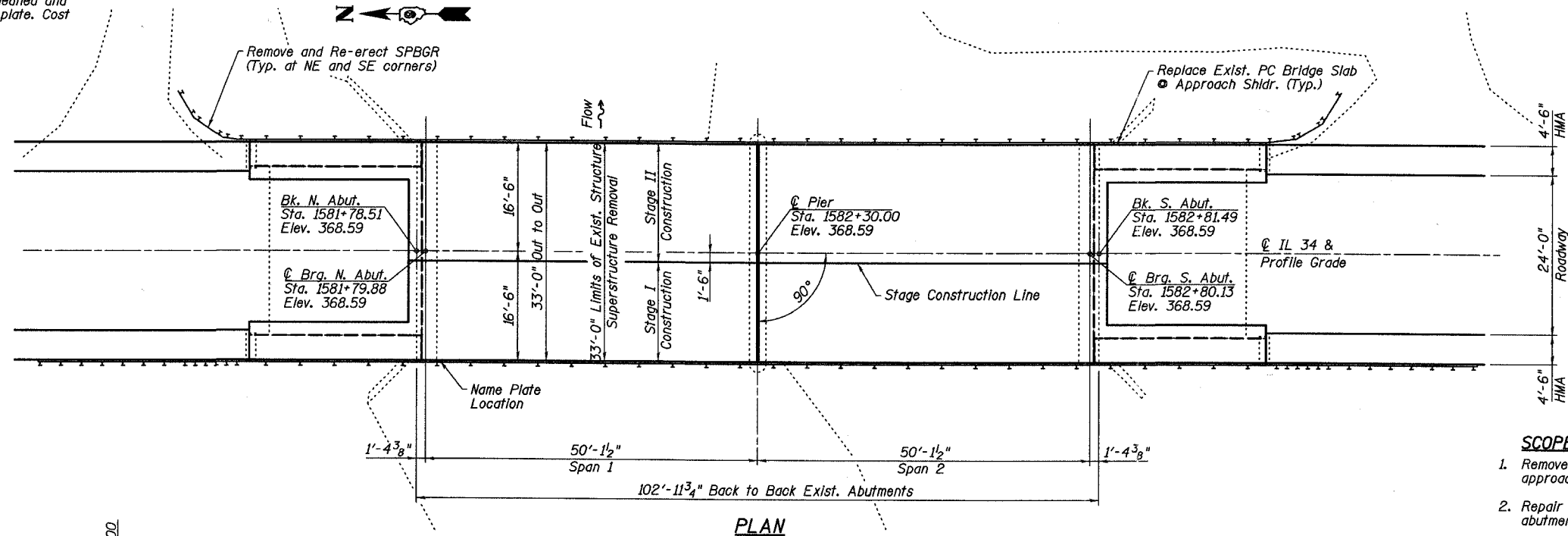
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STATION 1582+30  
REBUILT 200\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 869 SEC. 105B-DR-3  
LOADING HS20  
STR. NO. 083-0040

NAME PLATE

Note:  
See Std. 515001  
Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.



SCOPE OF WORK

1. Remove existing surfacing, steel railing, deck beams, and approach shoulder bridge slabs.
2. Repair beam bearing seats and perform other repairs at abutments and pier as required.
3. Reconstruct a two-span PPCD beam superstructure with concrete wearing surface and Steel Railing, Type SM. Reconstruct existing approach shoulders with Precast Concrete Bridge Slabs with concrete wearing surface.

DESIGN SPECIFICATION

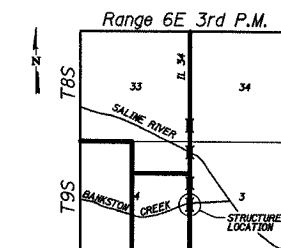
2002 AASHTO  
LOADING HS20-44  
No Allowance for future wearing surface  
DESIGN STRESSES  
FIELD UNITS  
f<sub>c</sub> = 5,000 psi (Concrete Wearing Surface)  
f<sub>c</sub> = 3,500 psi (All concrete except CWS)  
f<sub>y</sub> = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS

f<sub>c</sub> = 5,000 psi  
f<sub>ci</sub> = 4,000 psi  
f<sub>s</sub> = 270,000 psi (1/2" low lax strands)  
f<sub>sl</sub> = 201,960 psi (1/2" low lax strands)

PRECAST UNITS

f<sub>c</sub> = 4,500 psi  
f<sub>y</sub> = 60,000 psi (reinf.)



LOCATION SKETCH

GENERAL PLAN  
IL 34 OVER BANKSTON CREEK  
FAP ROUTE 869 - SECTION (105A)BR-1  
SALINE COUNTY  
STATION 1582+30.00  
STRUCTURE NO. 083-0040

**ESCA**  
CONSULTANTS, INC.

DESIGNED BY:	RDP	01/07
DRAWN BY:	DWH	01/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

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

STATE OF ILLINOIS  
BOARD OF PROFESSIONAL ENGINEERS  
No. 4647  
EXPIRES 11-30-08  
*Ralph E. Anderson*  
SIGNATURE  
04-12-07  
DATE