

BENCHMARK: Chiseled Square on top of Southwest wingwall, SN 097-0019, Sta. 599+25.00, 18.0' right, Elevation 380.71.

EXISTING STRUCTURE: SN 097-0019 was originally built in 1928 as S.B.I. Route 140, Section 105B. The superstructure was replaced in 1974, and precast concrete bridge slabs were utilized to widen the shoulders on the bridge approaches. In 2004, the shear keys were repaired and a 5" thick reinforced concrete wearing surface was added. The superstructure consists of 4 simple spans, 11" PPC deck beams. The substructure consists of two reinforced concrete closed abutments and three solid shaft reinforced concrete piers, all supported on timber piles. The back-to-back abutments length is 88'-0", and the out-to-out width is 34'-8". The existing superstructure and the existing approach shoulder bridge slabs shall be removed and replaced utilizing stage construction.

No salvage

STATION 598+76
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 328 SEC. 105 BR-2
LOADING HS20
STR. NO. 097-0019

NAME PLATE

See Std. 515001

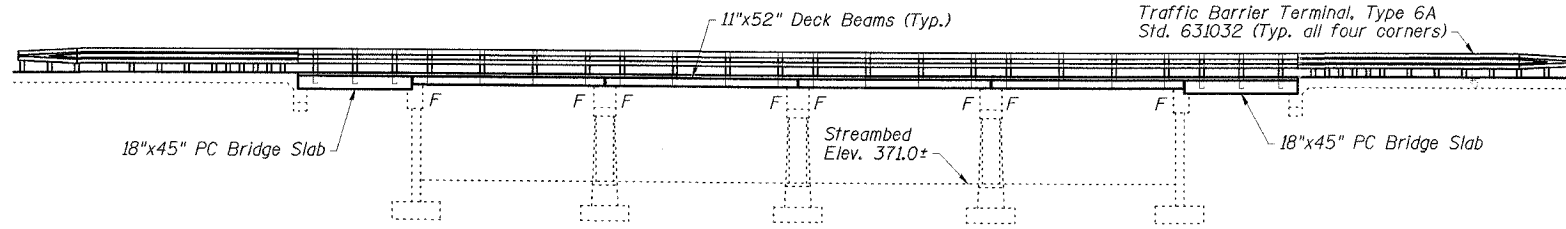
Note:
Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

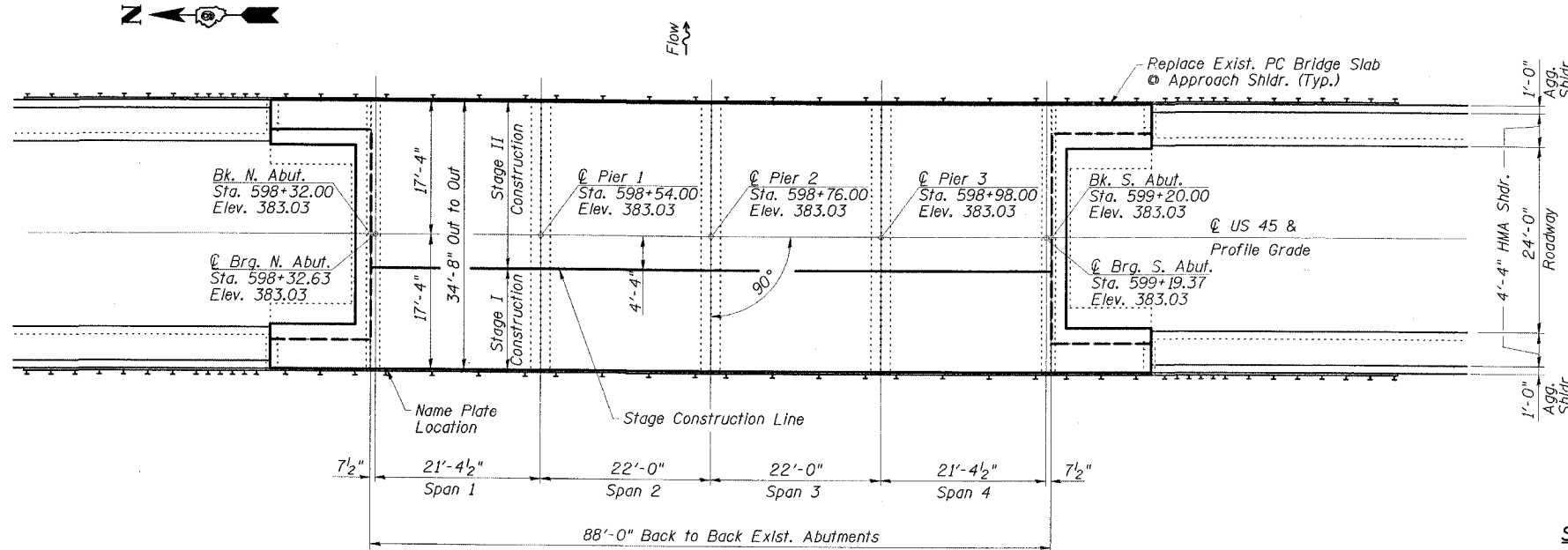
| | | | | | |
|---------------------|---------|--------|----------|-------|-------------------|
| ROUTE NO. | SECTION | COUNTY | TOWNSHIP | RANGE | SHEET NO. |
| FAP 328 | * | WHITE | 42 | 12 | 17 SHEETS |
| FED. ROAD DIST. NO. | | | | | FED. ROAD PROJECT |
| 98997 | | | | | *105X1BR |

STRUCTURE INDEX OF SHEETS

| | |
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| General Plan | Dwg. No. 1 of 17 |
| General Data | Dwg. No. 2 of 17 |
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| Steel Railing (Temporary) | Dwg. No. 4 of 17 |
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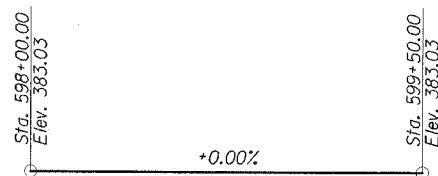
ELEVATION



PLAN

SCOPE OF WORK

1. Remove existing concrete wearing surface, steel railing, deck beams and approach shoulder bridge slabs.
2. Repair beam bearing seats and perform other repairs at abutments and piers as required.
3. Reconstruct a four-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.



PROFILE GRADE
(Along \hat{C} Roadway)

DESIGN SPECIFICATION

2002 AASHTO
LOADING HS20-44
No Allowance for future wearing surface

DESIGN STRESSES

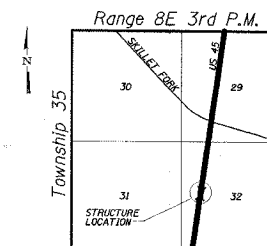
FIELD UNITS
 $f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f'_c = 3,500$ psi (All concrete except CWS)
 $f_y = 60,000$ psi (reinf.)

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)

PRECAST UNITS

$f'_c = 4,500$ psi
 $f_y = 60,000$ psi (reinf.)



LOCATION SKETCH

GENERAL PLAN
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ESCA
CONSULTANTS, INC.

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

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-08
Richard P. ...
SIGNATURE
04-05-07
DATE