

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.	SHEET NO.
FAP 873	107BR-1	FRANKLIN	73	12	16 SHEETS

78034

BENCHMARK: Railroad spike in power pole south side of IL 149 and first pole WSW of SN 028-0040, Sta. 1058+72, 27' Rt., Elev. 410.18

EXISTING STRUCTURE: SN 028-0040 was originally built in 1928 as S.B.I. Rte. 149, Section 107-B. The superstructure was replaced in 1982 and precast concrete bridge slabs were utilized to widen the approaches. The superstructure consists of one simple span, 17" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles. The back-to-back abutments length is 43'-0", 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.

STATION 1060+46.00
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 873 SEC. 107BR-1
LOADING HS20
STR. NO. 028-0040

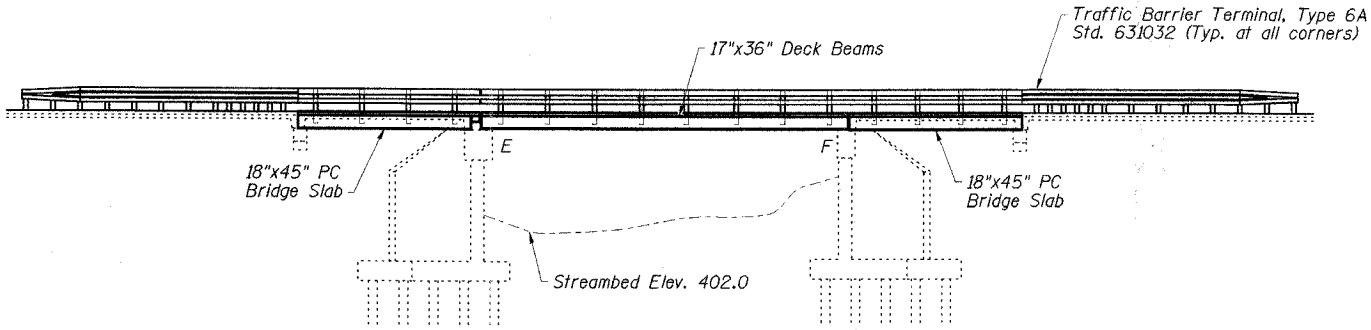
NAME PLATE

See Std. 515001

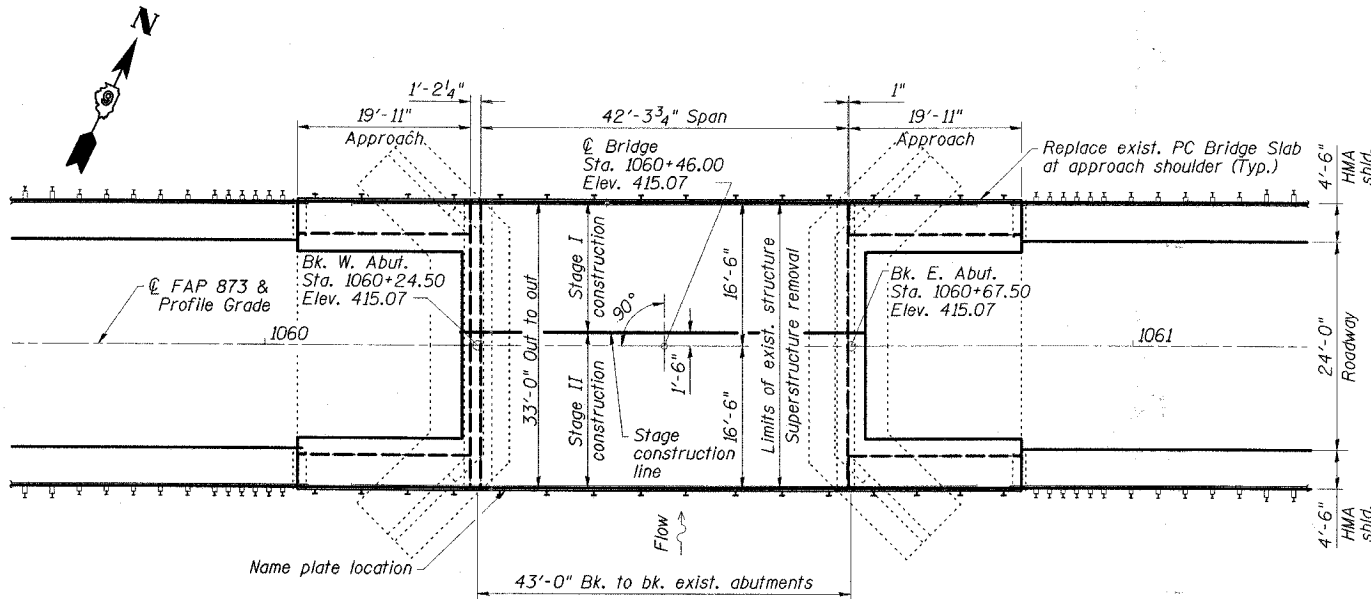
Note:
Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.

STRUCTURE INDEX OF SHEETS

General Plan	Sht. No. 1 of 16
General Data	Sht. No. 2 of 16
Stage Construction Details	Sht. No. 3 of 16
Temporary Concrete Barrier	Sht. No. 4 of 16
Superstructure	Sht. No. 5 of 16
Superstructure Details	Sht. No. 6&7 of 16
Approach Details	Sht. No. 8 of 16
Superstructure and Approach Details	Sht. No. 9 of 16
Steel Railing, Type SM	Sht. No. 10 of 16
Strip Seal Expansion Joint	Sht. No. 11 of 16
West Abutment	Sht. No. 12 of 16
West Abutment Details	Sht. No. 13 of 16
East Abutment	Sht. No. 14 of 16
East Abutment Details	Sht. No. 15 of 16
Bar Splicer Assembly Details	Sht. No. 16 of 16



ELEVATION



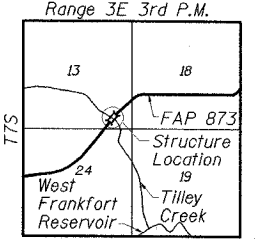
PLAN

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 as required.
3. Reconstruct a single-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 and Steel Railing, Type SM.

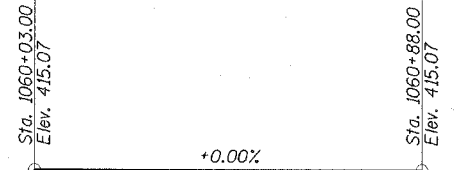
DESIGN SPECIFICATION

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
 $f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f'_s = 270,000$ psi ($1/2\%$ low lax strands)
 $f_{sl} = 201,960$ psi (2% low lax strands)
PRECAST UNITS
 $f'_c = 4,500$ psi
 $f_y = 60,000$ psi (reinf.)



LOCATION SKETCH

GENERAL PLAN
IL 149 OVER TILLEY CREEK
FAP ROUTE 873 - SECTION 107BR-1
FRANKLIN COUNTY
STATION 1060+46.00
STRUCTURE NO. 028-0040



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



EXPIRES 11-30-08
R.L.D.
SIGNATURE
04/07/08
DATE

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	02/08
DRAWN BY:	HAS	02/08
CHECKED BY:	JMS	04/08
APPROVED BY:	RDP	04/08