

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

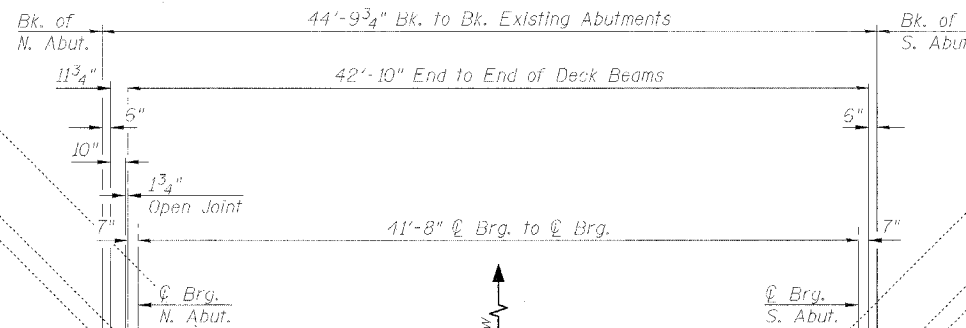
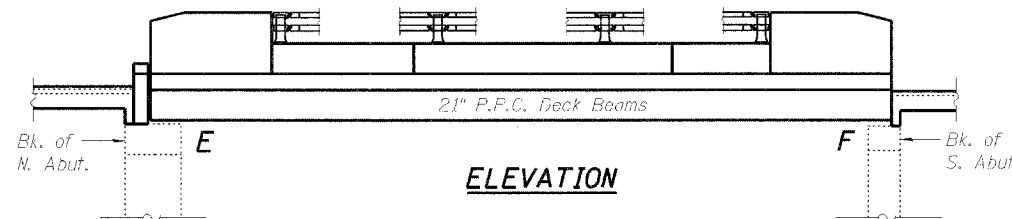
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 1 16 SHEETS
3887	AR-B	KANE	43	17	
FED. ROAD DIST. NO. 7	ILL. ROAD DIST. NO. 7	FED. AID PROJECT			

Contract #60C23

**Benchmark:**  
Existing benchmark could not be found on N.E. wingwall. Top of N.E. wingwall was assumed at El. 661.84 (original benchmark elevation). Elevation was transferred to temporary benchmark which is railroad spike in west side of power pole, El. 662.23.

**Existing Structure:**  
Original Bridge S.N. 045-0020 was built as R.C. Deck Girder with Closed Abutments next to thru steel girder Railroad Bridge in early 1900's. Railroad Bridge was removed and Highway Bridge was widened in kind, abutments modified, in 1935. This structure was rebuilt in 1978. Superstructure was removed and replaced with PPC Deck Beams. Abutments were modified for deck beams and repaired as required. The existing PPC Deck Beams, Sidewalk, and Parapets shall be removed and replaced utilizing stage construction. Existing brass name plate has SN 025-0020 imprinted rather than SN 045-0020.

**Salvage:**  
Remove and re-erect existing aluminum railing. Relocate existing name plate.



**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Notes and Total Bill of Material
3. Stage I Construction
4. Stage II Construction
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9. Strip Seal Joint Details
10. Concrete Wearing Surface
11. Sidewalk & Parapet Details
12. Parapet Details
13. Bar Splicer Assembly Details
14. Re-erected Aluminum Railing
15. North Abutment Details
16. Substructure Repairs

**LOADING HS20-44**

No Allowance for future wearing surface

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications

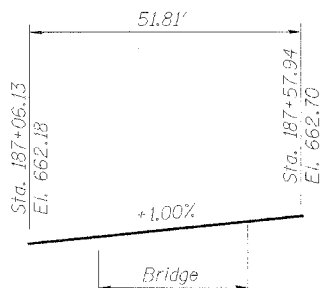
**DESIGN STRESSES**

**FIELD UNITS**

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

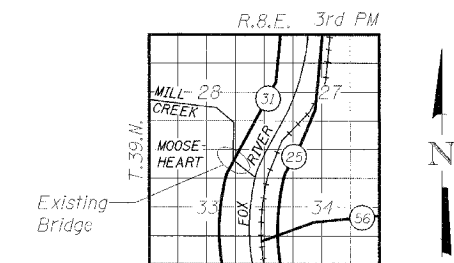
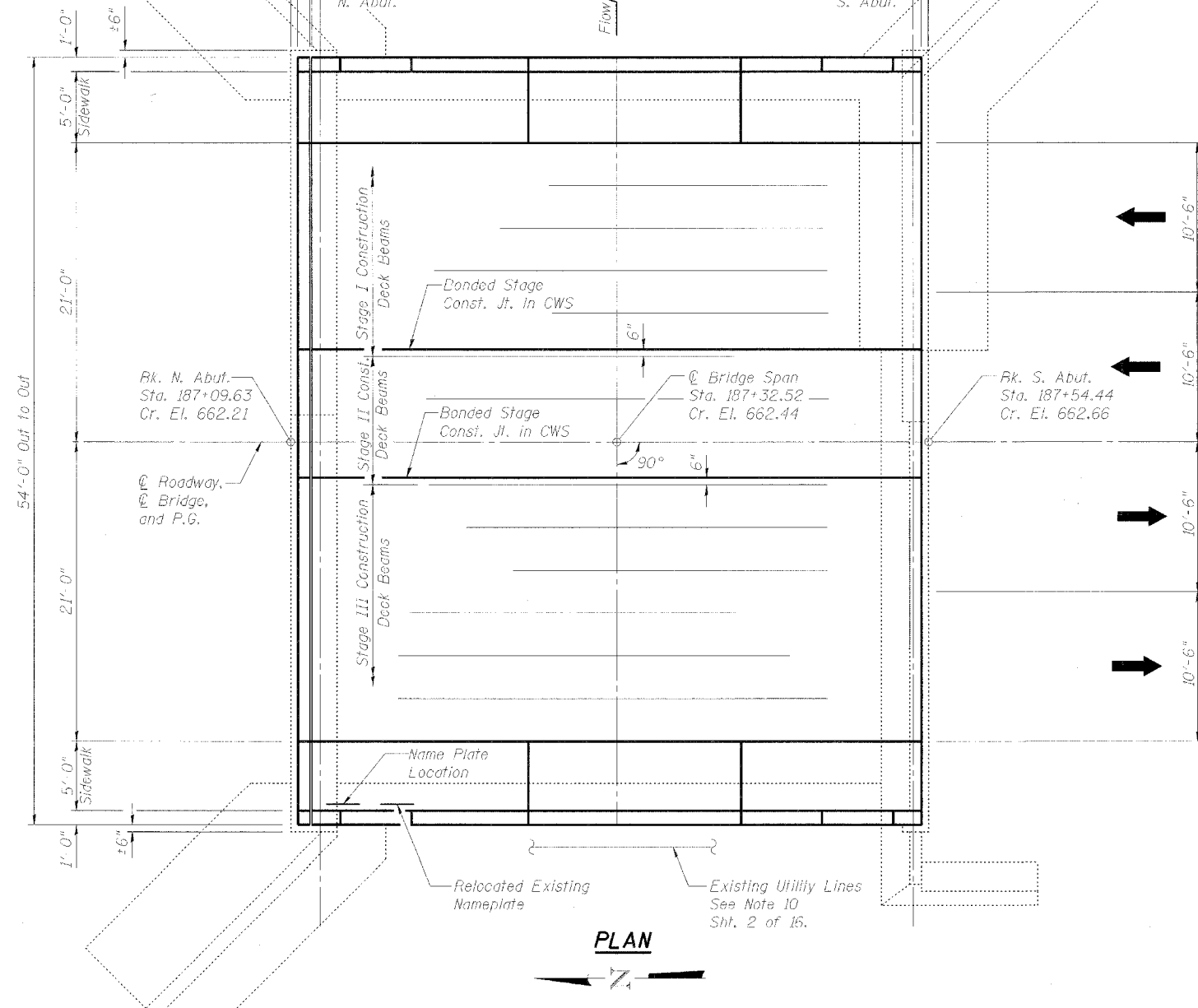
**PRECAST PRESTRESSED UNITS**

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



**PROFILE GRADE**

at  $\odot$  Roadway  
(For Bridge Only)



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**

F.A.U. 3887 (IL 31)

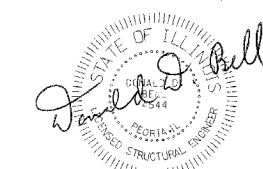
OVER MILL CREEK

SECTION AR-B

KANE COUNTY STA. 187+31.80

STRUCTURE NO. 045-0020

DESIGNED	LLV
CHECKED	DDB
DRAWN	MGM
CHECKED	LLV



License Expires: 11/30/08  
Date Signed: 11-2-07

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