

# EXISTING STRUCTURE PLANS (FOR REFERENCE ONLY)

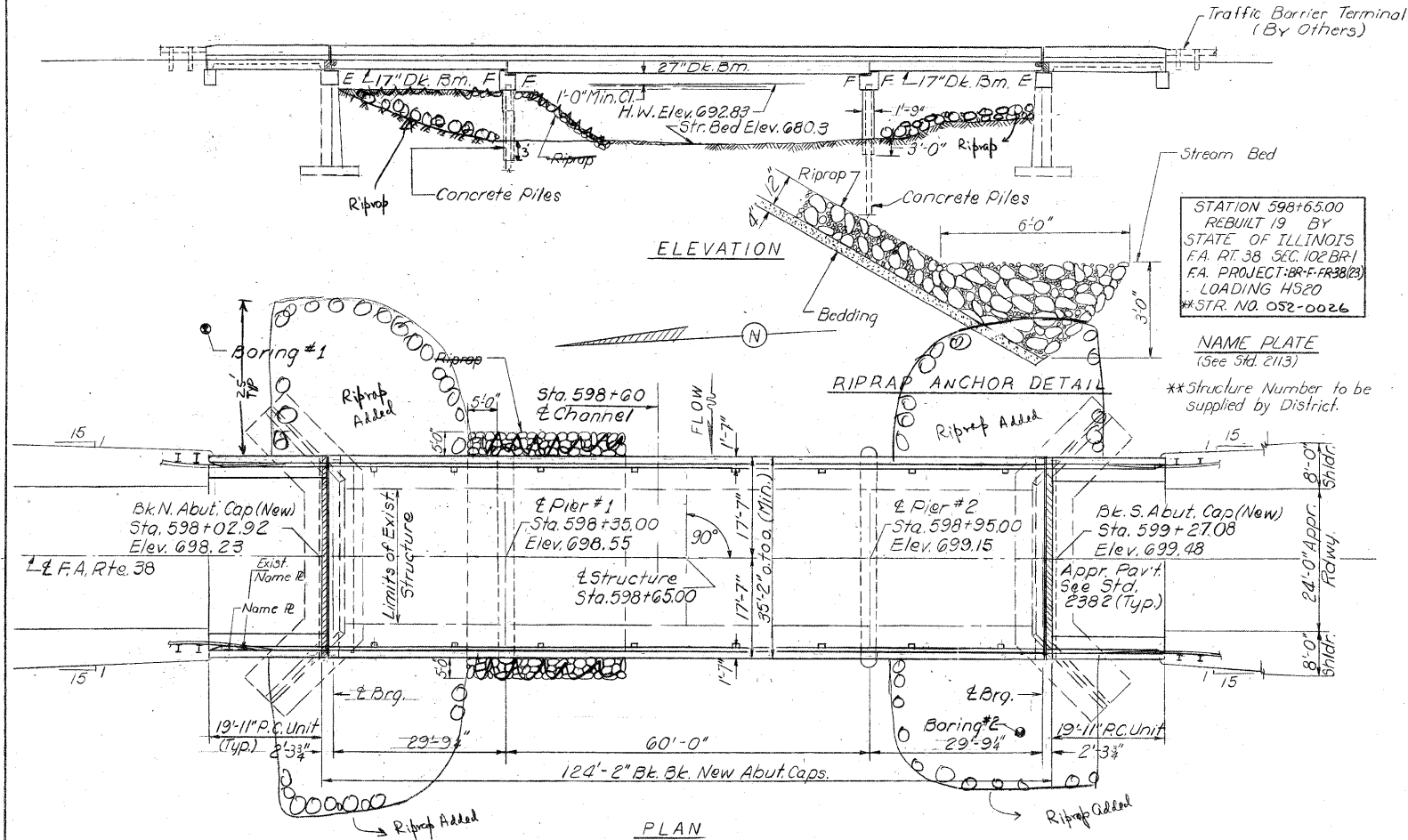
B.M. Chiseled square on S.W. wingwall of bridge 15' Rt. Sta. 602+56 Elev. 695.49  
Existing Structure #052-0026 Built as S.B.I. Rt. 26, Sec. 102 B+C, at Sta. 598+65  
in the year 1927. The existing 120'-0" long by 23'-2" wide steel truss shall  
be removed and the existing R.C. closed Abuts. rebuilt and two new concrete  
enclosed pile bent piers built to accommodate a new P.P.C. Deck Beam  
Superstructure. Traffic shall be detoured.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	102 BR-1	LEE	61	15
13 SHEETS				

**GENERAL NOTES**

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.  
See Proposal for Boring Data.  
All structural steel shall be shop painted with two coats of basic lead silico chromate paint.  
Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07(c) of the Standard Specifications and are included in quantity of structural steel.  
The contractor shall drive one concrete test pile in a permanent location at Pier 1 as directed by the Engineer before ordering the remainder of piles.  
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 4".  
Limits of Waterproofing Membrane System shall be from toe to toe of parapets and end to end of deck beams.  
Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.  
Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.



STATION 598+65.00  
REBUILT BY  
STATE OF ILLINOIS  
F.A. RT. 38 SEC. 102 BR-1  
F.A. PROJECT: BR-F-R38(2)  
LOADING HS20  
\*STR. NO. 052-0026

NAME PLATE  
(See Std. 2113)  
\*\*Structure Number to be supplied by District.

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course, Class I	Tons	50		50
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		18	18
Structure Excavation	Cu. Yd.		83	83
Stone Riprap	Sq. Yd.		140	140
Protective Coat	Sq. Yd.	130		130
Class X Concrete	Cu. Yd.	424	110.9	153.3
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2122		2122
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	2097		2097
Structural Steel	Pound	4620		4620
Reinforcement Bars	Pound	4200	9150	13350
Reinforcement Bars (Epoxy Coated)	Pound	1480		1480
Concrete Piles	Lin. Ft.		563	563
Test Piles Concrete	Each	1	1	1
Name Plates	Each	1		1
Preformed Joint Seal 2 1/2"	Lin. Ft.	70		70
Portland Cement Mortar Fairing Course	Lin. Ft.	1085		1085
Waterproofing Membrane System	Sq. Yd.	429		429

**WATERWAY INFORMATION**

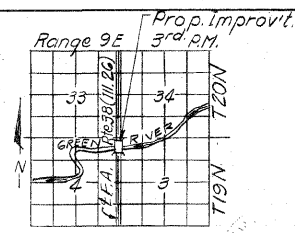
Drainage Area		235 Sq. Mi. Low Grade Elev.		@ Sta.		
Flood	Freq. Yrs.	Q C.F.S.	Opening Sq. Ft.	Nat. Head Ft.	Headwater El.	
		Exist.	Prop.	Exist.	Prop.	
Design	50	6900	990	692.83	0	692.83
Base	100	7250	990	693.3	0	693.3
Max. Calc.	500	9135	990	693.3	0	693.3

\*Estimated Discharges.  
Note: Proposed opening over the Green River is one opening of a total of (3) located in the Green River floodplain. A total opening 1328 Sq. Ft. is provided below design Highwater.

**DESIGN STRESSES**

**FIELD UNITS**      **PRECAST UNITS**  
 $f'_c = 3500 \text{ p.s.i.}$        $f'_c = 4500 \text{ p.s.i.}$   
 $f_y = 60,000 \text{ p.s.i. (Rein.)}$        $f'_c = 1800 \text{ p.s.i.}$   
 $f_s = 20,000 \text{ p.s.i. (Struct.)}$        $f_s = 20,000 \text{ p.s.i.}$

**PRECAST PRESTRESSED UNITS**  
 $f'_c = 5000 \text{ p.s.i.}$   
 $f'_ci = 4000 \text{ p.s.i.}$   
 $f_s = 270,000 \text{ p.s.i. (2" Strands)}$   
 $f_{si} = 189,000 \text{ p.s.i. (1/2" Strands)}$   
 Design Specifications 1977 AASHTO 1978, 1979 & 1980 Interim Specs. as applicable  
 Allow 25# sq. ft. for future Wearing Surface  
 LOADING HS20-44 (New Structure)



**GENERAL PLAN**

F.A. R.T.E. 38 OVER GREEN RIVER  
 F.A. R.T.E. 38 (LL RT 26) SEC. 102 BR-1  
 LEE COUNTY  
 STA. 598+65.00

DESIGNED: [Signature]      EXAMINED: [Signature]      FEBRUARY 28 1981

CHECKED: M. Ryan      PASSED: [Signature]

DRAWN: R. Daly      APPROVED: [Signature]

CHECKED: MR