

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	57B-3F	COOK	12	3
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		CONTRACT NO. 60B87

**Bench Mark:**

Chisled square on top of the wingwall at the south east corner of the Cicero Avenue Bridge over the North Branch of the Chicago River. Elev. 605.37

**Existing Structure:**

S.N. 016-0653 built as S.B.I Route 57 Sec. 57B-NRM3 in 1935. The existing bridge has two simple spans which consist of a PCC wearing surface and reinforced concrete tee beams. The existing deck is 76'-0" wide and 86'-0" long. The existing structure is to be removed and replaced. Traffic to be maintained utilizing stage construction.

No salvage

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Furnishing Elastomeric Bearing Assembly, Type I	Each	10
Furnishing Structural Steel	L. Sum	1
Storage of Structural Steel and Bearings	Cal Day	30

**INDEX OF SHEETS**

- S1. GENERAL PLAN AND ELEVATION
- S2. FRAMING PLAN & DETAILS
- S3. BEARING & DIAPHRAGM DETAILS
- S4. ANCHOR BOLTS
- S5. DECK ELEVATIONS I
- S6. DECK ELEVATIONS II
- S7. DECK PLAN & DETAILS
- S8. DIAPHRAGM DETAILS
- S9. NORTH ABUTMENT
- S10. SOUTH ABUTMENT

**GENERAL NOTES**

- Fasteners shall be high strength bolts, AASHTO M 164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 in painted areas. Bolts 3/4" φ, open holes 15/16" φ, unless otherwise noted.
- Calculated weight of Structural Steel = 341.632 lbs.
- All structural steel shall be AASHTO M 270 Grade 50W.
- The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs.
- AASHTO M 270 Grade 50W structural steel shall only be painted, at the ends of the beams, for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with an inorganic zinc rich primer per AASHTO M 300, Type I. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

PATRICK ENGINEERING, INC.  
GREGORY J. HATLESTAD, S.E.



*Gregory J. Hatlestad*  
GREGORY J. HATLESTAD, S.E.  
# 081-005562

EXP 11/30/06

DATE 7/07/06

**APPROVED**

FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Andersson (TM)*  
ENGINEER OF BRIDGES AND STRUCTURES

**DESIGN STRESSES**

**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)  
fy = 50,000 psi (M270 Grade 50W)

**LOADING HS20-44**

Allowance for Future Wearing Surface = 50 lb/ft<sup>2</sup>

**DESIGN SPECIFICATIONS**

1996 AASHTO Standard Specifications for Highway Bridges and 1997-2002 Interims

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.035g  
Site Coefficient (S) = 1.0

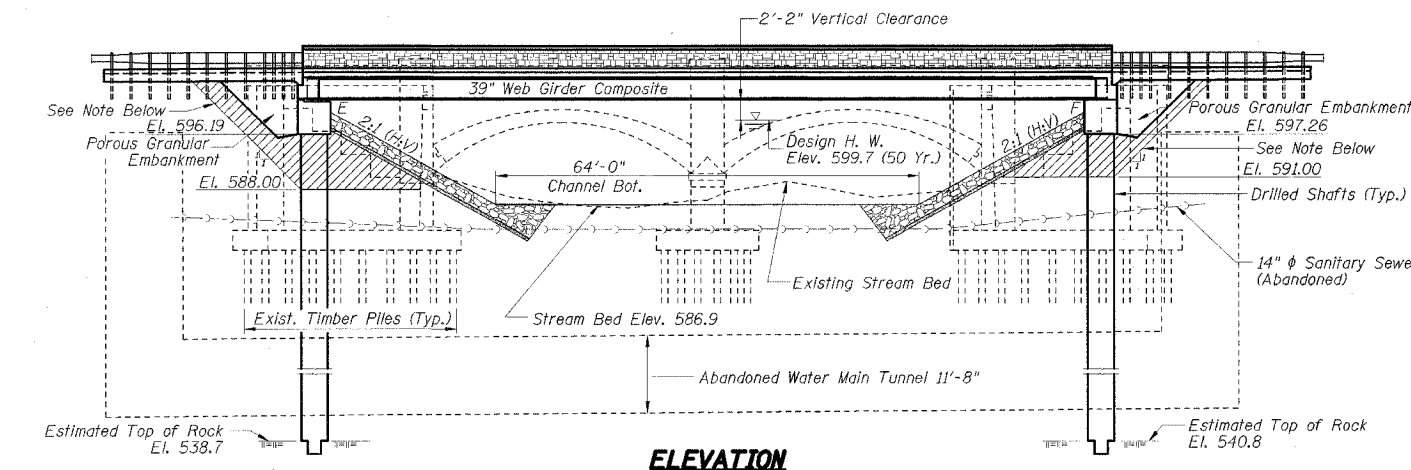
**WATERWAY INFORMATION**

DRAINAGE AREA = 112.3 Sq. Mi.		PROPOSED LOW GRADE ELEV. = 605.4 @ Sta. 20+42							
FLOOD	FREQ. YR.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E. Ft.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
DESIGN	10	2318	620	908	597.7	0.3	0.2	598.0	597.9
BASE	50	3510	636	1131	599.7	0.9	0.4	600.6	600.1
OVERTOPPING	100	4080	636	1257	600.8	1.3	0.5	602.1	601.3
MAX. CALC.	420	5180	636	-	603.4	2.1	-	605.5	-
	500	5460	-	1427	603.5	-	0.8	-	604.3

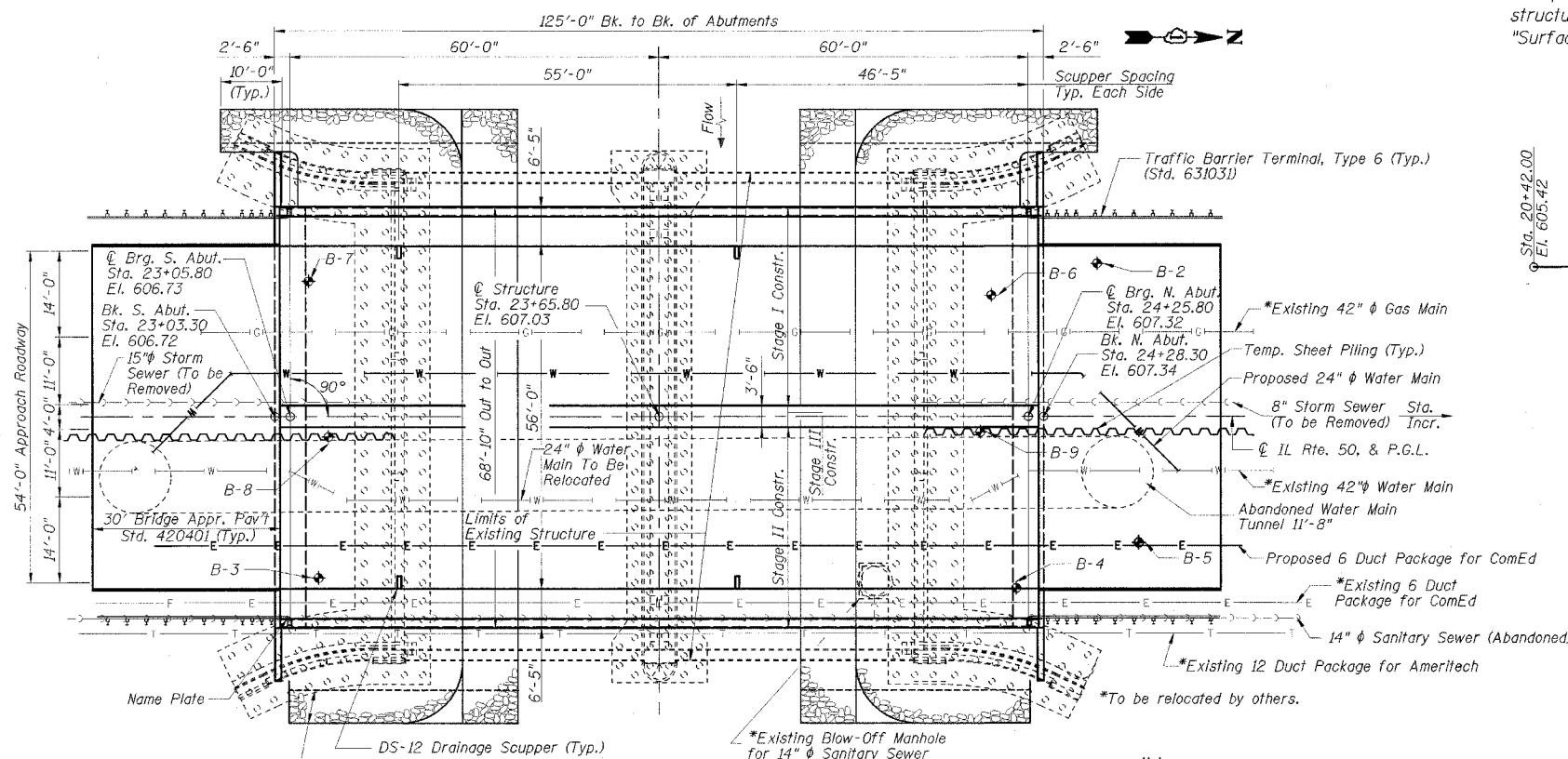
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN AND ELEVATION  
FAP 350 IL ROUTE 50 (CICERO AVE.) OVER  
NORTH BRANCH OF THE CHICAGO RIVER  
COOK COUNTY STATION 23+65.80  
SECTION 57B-3F  
STRUCTURE NO. 016-2782

SCALE: NONE  
DATE: 6/29/06  
DRAWN BY: G. Hatlestad  
CHECKED BY: P. Lopez



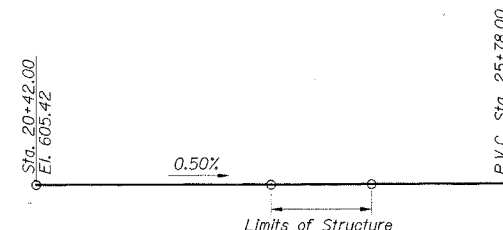
**ELEVATION**



**PLAN**

**Note:**

Hatched area indicates unsuitable soils behind the existing abutments in the western half of the northwest and southwest quadrants. This material shall be removed and replaced with suitable embankment. The replacement material shall be porous granular embankment with a gradation of CA-5 or CA-7. Removal of unsuitable material shall be done after temporary sheet piling is in place.



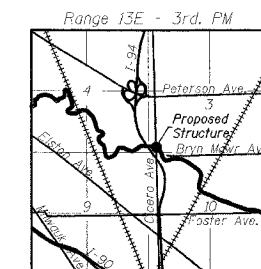
**PROPOSED PROFILE GRADE**

(Along PGL Roadway)

STATION 23+65.80  
BUILT 200- BY  
STATE OF ILLINOIS  
F.A.P. RT. 350 SEC. 57B-3I  
LOADING HS20  
STR. NO. 016-2782

**NAME PLATE**

See Standard 515001



**LOCATION SKETCH**