

Benchmark: "□" cut on top of northwest wingwall of bridge over East Fork of Nettle Creek (S.N. 032-0081) El. 517.51.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 31
S.R.L.	①	GRUNDY	50	31	OF 514 SHEETS
F.A.U. DIST.		ILLINOIS	FED. AID PROJECT		
FED. ROAD DIST. NO. 7					

① G-BR-1 66563

EXISTING STRUCTURE DESCRIPTION:

The bridge (S.N. 032-0081) was built as F.A. Route 8, Section G-BR-1 in 1975. The structure is a two-span precast, prestressed concrete deck beam bridge with a bituminous overlay and a total length back to back of abutments of 82'-6". The deck is 42'-0" out to out and carries two traffic lanes and a sidewalk on each side. The structure skew is 6°00'00" left. The bridge is supported by stub abutments and a solid pier founded on steel piles. The bridge will be replaced utilizing stage construction maintaining one lane of traffic in each direction at all times. No salvage.

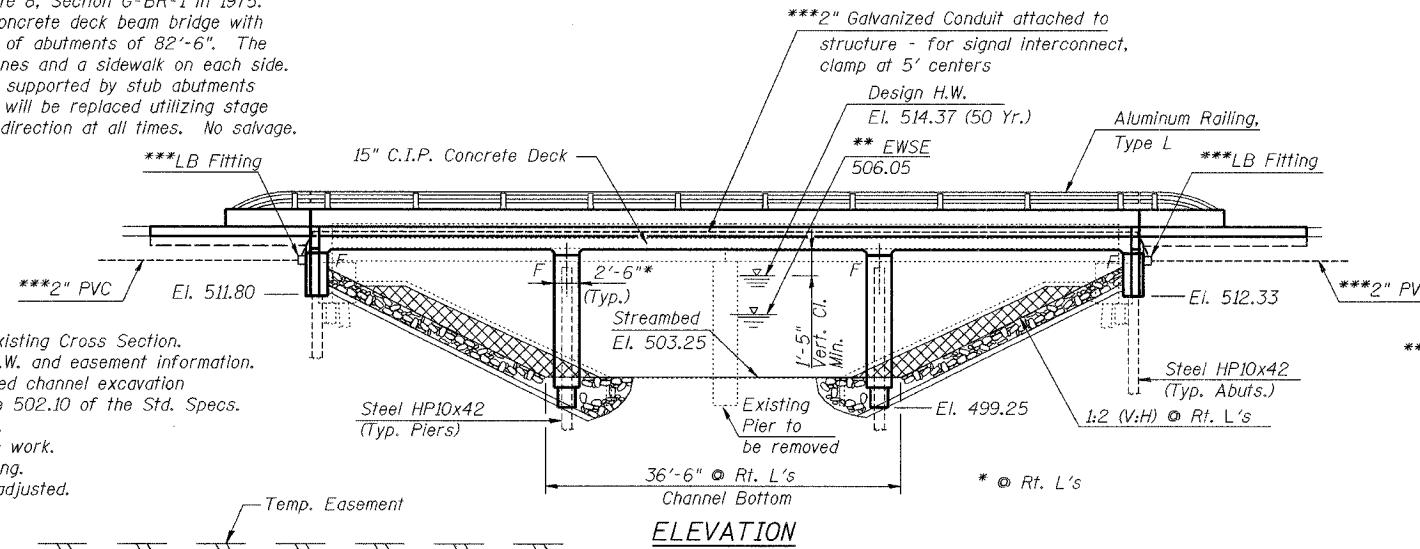
Notes:
See Sheet S3 for Section A-A, Section B-B and Existing Cross Section.
See Roadway Plans for detailed drainage, utility, R.O.W. and easement information.
Portions of existing structure removed below proposed channel excavation limits shall be backfilled in accordance with Article 502.10 of the Std. Specs.
Cost Included with Removal of Existing Structures.
See erosion control plan for provisions on in-stream work.
See Sheet S2 for the limits of Temporary Sheet Piling.
See Special Provisions for Status of Utilities to be adjusted.

- ⊕ Denotes Soil Boring Location
- ⊗ Denotes Channel Excavation

WATERWAY INFORMATION

Drainage Area = 17.2 mi² Low Grade Elev. = 516.53 @ Sta. 554+48.36

Flood	Freq. Yr.	Q ft ³ /s	Opening ft ²		Head-ft		Headwater El.		
			Exist.	Prop.	HWE ft	Exist.	Prop.	Exist.	Prop.
Design	50	1214	504	569	514.4	0.0	0.0	514.4	514.4
Base	100	1369	549	634	515.5	0.0	0.0	515.5	515.5
Overtopping	130	1400	549	-	515.7	0.0	-	515.7	-
Max. Calc.	150	1430	-	634	515.8	-	0.0	-	515.8



** EWSE = Estimated Water Surface Elevation
*** = Future Installation (By others)

DESIGN SPECIFICATIONS

1996 AASHTO, 1997 thru 2002 Interims

LOADING HS20

Allow 50 psf for future wearing surface.

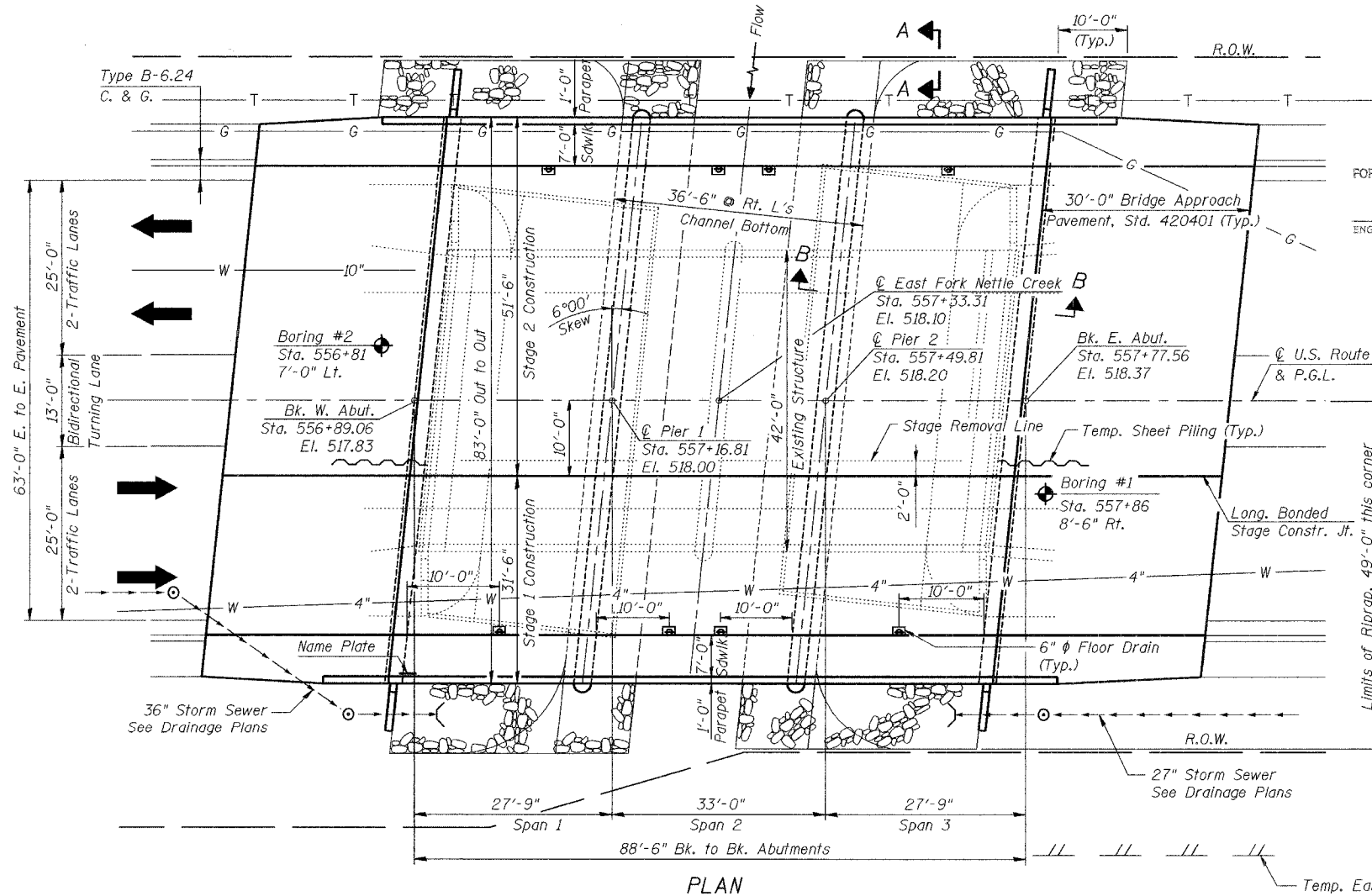
DESIGN STRESSES

FIELD UNITS

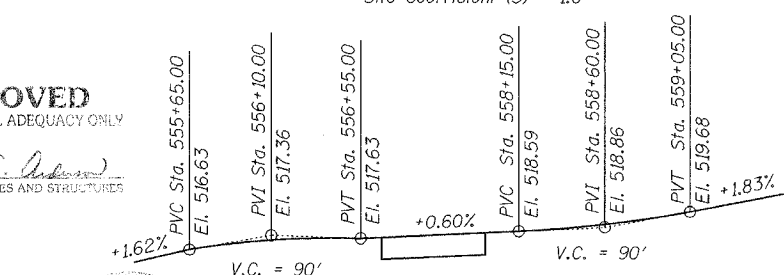
f_c = 3,500 psi
f_y = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04
Site Coefficient (S) = 1.0



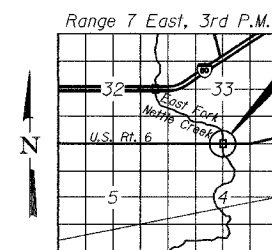
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Johnson
ENGINEER OF BRIDGES AND STRUCTURES



**PROFILE GRADE LINE
ALONG U.S. ROUTE 6**

STATION 557+33
BUILT 200 BY
STATE OF ILLINOIS
FAU 5952 SEC. G-BR-1
LOADING HS20
STR. NO. 032-0108

NAME PLATE
See Std. 515001



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
U.S. ROUTE 6 (BEDFORD ROAD)
OVER EAST FORK OF NETTLE CREEK
FAU 5952-SEC. G-BR-1**

**GRUNDY COUNTY
STATION 557+33.31
S.N. 032-0108**

**BOWMAN, BARRETT
& ASSOCIATES INC.**
CONSULTING ENGINEERS
130 E. RANDOLPH STREET
CHICAGO, ILLINOIS 60601
JOB NO. 541

DESIGNED	ED/UM
CHECKED	MRM
DRAWN	EMF/LT
CHECKED	BLU

DATE: 11/04/05