

Benchmark: Chiseled square on top of Southwest wingwall, S.N. 032-0031. Sta. 581+70, 20' Lt., Elev. 586.71

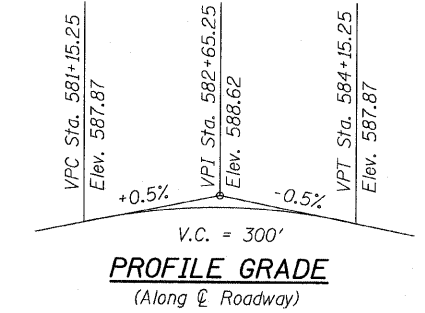
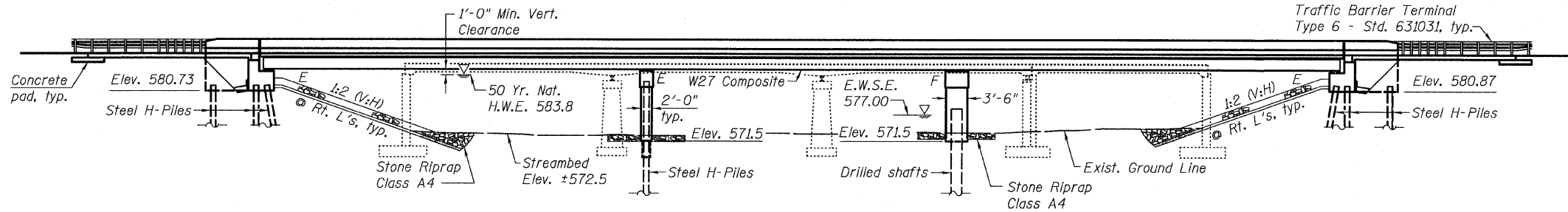
Existing Structure: S.N. 032-0031 built in 1927 as SBI Route 47, Section 119B. Superstructure replaced, substructure widened, and fourth span added on North end in 1954 as SBI Route 47, Section 119B-Y. Structure consists of three continuous spans and one simple span of reinforced concrete slab superstructure supported on closed abutments and solid piers. The back-to-back abutment dimension is 151'-1 1/8" and the out-to-out deck dimension is 36'-4". The structure is to be removed and replaced using stage construction.

No Salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 1
FAP 326	119BR	GRUNDY	68	21	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66687



**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.041g  
Site Coefficient (S) = 1.0

**DESIGN SPECIFICATIONS**

2002 AASHTO

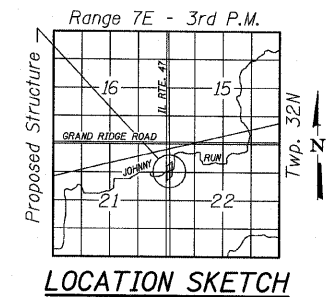
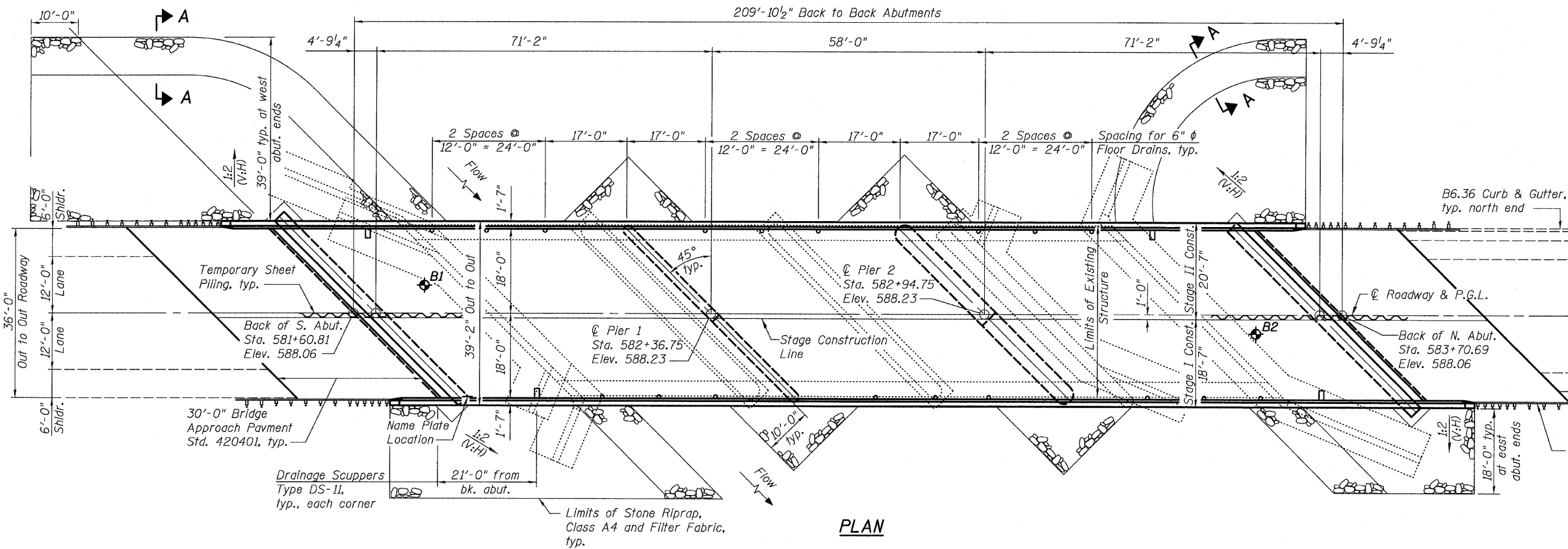
**LOADING HS20-44**

Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c$  = 3,500 psi  
 $f_y$  = 60,000 psi (Reinforcement)  
 $f_y$  = 50,000 psi (AASHTO M 270 Grade 50W)



**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	S. Abut.	Piers	N. Abut.
	577.8	569.2	577.9

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	2713	784	954	582.8	0.1	0.1	582.9	582.9
Base	100	3040	910	1131	584.2	0.3	0.2	584.5	584.4
Overtopping									
Max. Calc.	500	3791	920	1210	584.8	0.4	0.3	585.2	585.1

STATION 582+65.75  
BUILT 200\_ BY  
STATE OF ILLINOIS  
FAP ROUTE 326 - SEC 119BR  
LOADING HS20  
STRUCTURE NO. 032-0112

**NAME PLATE**  
See Std. 515001

DESIGNED	MJP
CHECKED	NEL
DRAWN	NEL
CHECKED	MJP

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

Jeffrey R. Renshaw  
Professional Engineer  
No. 081-0092205  
8/28/2008  
EXPIRES 11/30/2008

**GENERAL PLAN**  
**IL 47 OVER JOHNNY RUN**  
**FAP ROUTE 326 - SECTION 119BR**  
**GRUNDY COUNTY**  
**STATION 582+65.75**  
**STRUCTURE NO. 032-0112**

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Design Firm License No. 184.001115

Notes:  
① See sheet 2 of 27 for Section A-A and Index of Sheets.