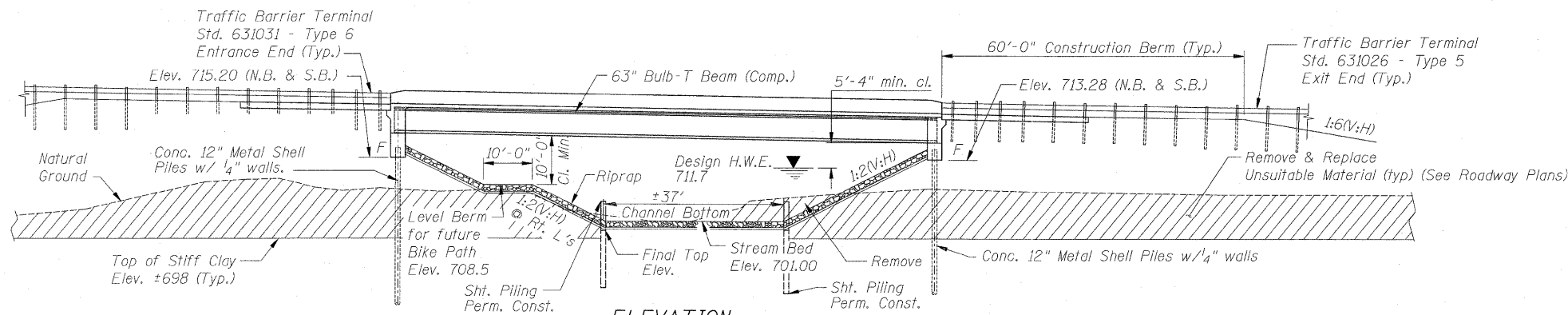


Bench Mark: N.W. corner of abutment seat of bridge on existing Il. Rte. 2 alignment.  
Sta. 743+39, 137' Rt. Elevation 715.17

Existing Structure: None

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

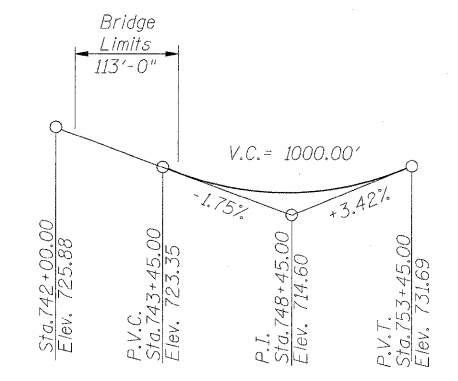


STATION 743+03.21  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.P. RT. 734 SEC. 77-2B-1  
WINNEBAGO COUNTY  
LOADING HS20  
STR. NO. 101-0177

NAME PLATE (S.B.)  
See Std. 515001

STATION 743+03.21  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.P. RT. 734 SEC. 77-2B-1  
WINNEBAGO COUNTY  
LOADING HS20  
STR. NO. 101-0178

NAME PLATE (N.B.)  
See Std. 515001



PROFILE GRADE

DESIGN SPECIFICATIONS  
2002 AASHTO Standard Spec. (17th Edition)

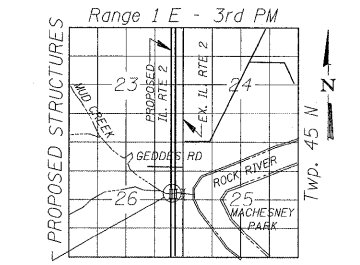
LOADING HS20-44  
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 3.5%  
Site Coefficient (S) = 1.2

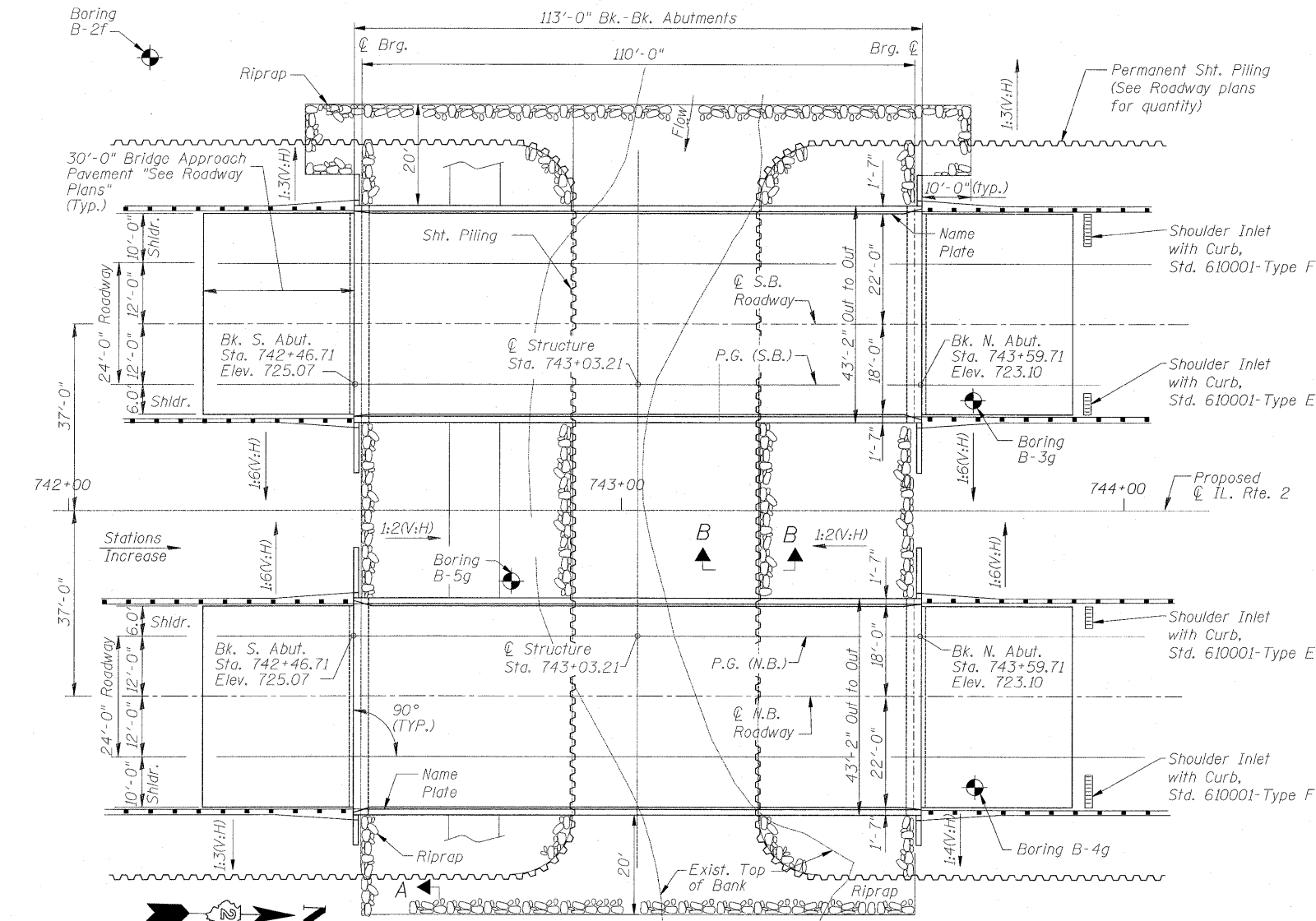
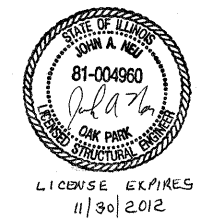
DESIGN STRESSES

FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinf.)

PRECAST UNITS  
 $f'_s = 270,000$  psi ( $\frac{1}{2}$ "  $\phi$  Low Relax. Strands)  
 $f_{st} = 201,960$  psi ( $\frac{1}{2}$ "  $\phi$  Low Relax. Strands)  
 $f'_c = 6,000$  psi  
 $f_{ci} = 5,000$  psi



LOCATION SKETCH



PLAN

Note: Provide Slope Protection Downstream on North Bank of Existing Bridge. (See Roadway Plans)

See Sheets 27 and 28 for Sections A-A and B-B

DESIGNED - JAN
CHECKED - JAW
DRAWN - BTO
CHECKED - JAW

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
*Paul J. LaRocca*  
ENGINEER OF BRIDGES AND STRUCTURES

DESIGN SCOUR TABLE

Design Scour Elevation	S. Abut. 715.2	N. Abut. 713.3
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WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural High Water El.	Head-Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten-Year	10	1114	N/A	639	711.5	N/A	0.1	N/A	711.6
Design	50	1702	N/A	656	711.7	N/A	0.3	N/A	712.0
Base	100	1947	N/A	674	711.9	N/A	0.4	N/A	712.3
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	2525	N/A	702	712.2	N/A	0.5	N/A	712.7

10-Year Velocity through Existing Bridge = N/A    10-Year Velocity through Proposed Bridge = 1.8 fps

GENERAL PLAN  
IL RT. 2 OVER MUD CREEK (PUBLIC WATER)  
F.A.P. ROUTE 734 SEC. 77-2B-1  
WINNEBAGO COUNTY  
STRUCTURE NO. 101-0177 & 101-0178

SHEET NO. 1	F.A.P. RTE. 734	SECTION 77-2B-1, 77-2-2	COUNTY WINNEBAGO	TOTAL SHEETS 530	SHEET NO. 273
30 SHEETS					
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 64813					