

Bench Mark: Chiseled "□" on retaining wall at the N.W. corner of I-55 NBL S.N. 068-0038 Sta. 1065+39.50, 35' Lt. NAVD 88 = 630.51 ft.

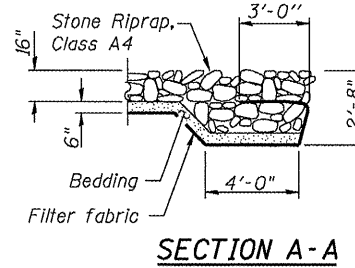
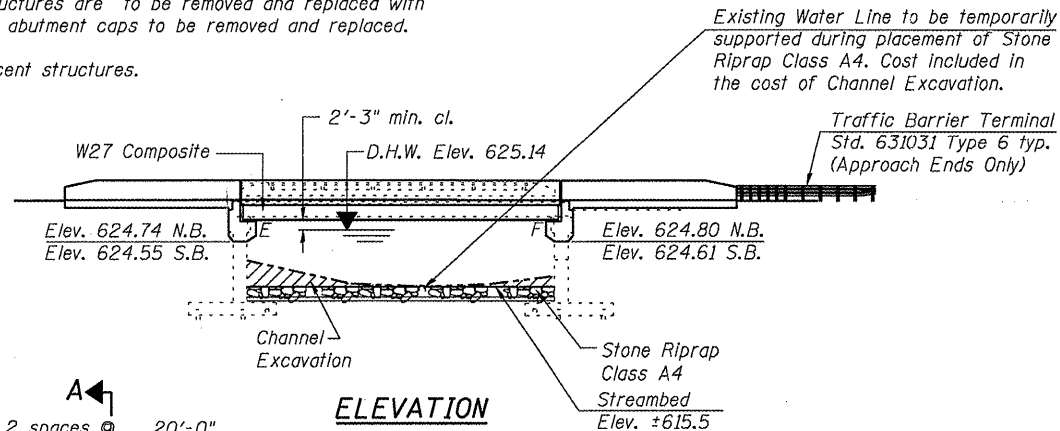
Existing Structure: S.N. 068-0038 N.B. and S.N. 068-0039 S.B. Built in 1970 as F.A.I. Rte. 55, Section 68-4B-1 at Sta. 1066+03.18. Existing dual structures each consist of 1-span precast, prestressed concrete deck beams supported by closed abutments on steel piled footings. 61'-8" Bk to Bk of abutments and 42.00' out to out of decks. Superstructures are to be removed and replaced with reinforced concrete deck slabs on steel stringers. Existing abutment caps to be removed and replaced.

Traffic is to be maintained using a staged detour with adjacent structures.

No Salvage

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 55	(68-4)F	MONTGOMERY		3	23 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72C32



**INDEX OF SHEETS**

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- 11 Framing Plan & Steel Details
- 12 Bearing Details
- 13 Bar Splicer Assembly Details
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- 15-18 Abutment Details
- 19-22 Abutment and Retaining Wall Concrete Repair
- 23 Cantilever Forming Bracket Detail

**LOADING HS20-44 & ALT.**

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

**DESIGN SPECIFICATIONS**  
2002 AASHTO

**DESIGN STRESSES**  
**PROPOSED FIELD UNITS**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50W)

**EXISTING FIELD UNITS**

$f'_c = 1,000$  psi  
 $f_s = 20,000$  psi

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 5.5%g  
Site Coefficient (S) = 1.5

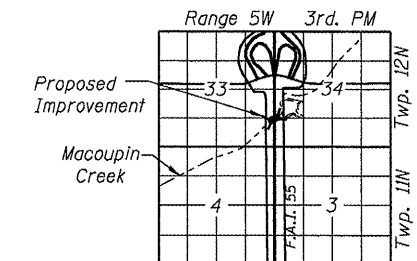
STATION 1066+03.18  
REBUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 55 SEC. 68-4B-1  
LOADING HS20 & ALT  
STR. NO. 068-0038

STATION 1066+03.18  
REBUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 55 SEC. 68-4B-1  
LOADING HS20 & ALT  
STR. NO. 068-0039

**NAME PLATE**

See Std. 515001

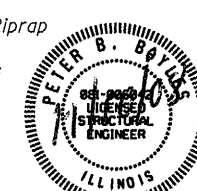
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates



**LOCATION SKETCH**

**APPROVED**  
For Structural Adequacy Only

*Ralph E. Anderson*  
Engineer of Bridges & Structures

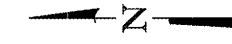


Peter B. Bayles, P.E., S.E.  
Structural Engineer License No. 081-006042  
Expiration Date: 11/30/2010

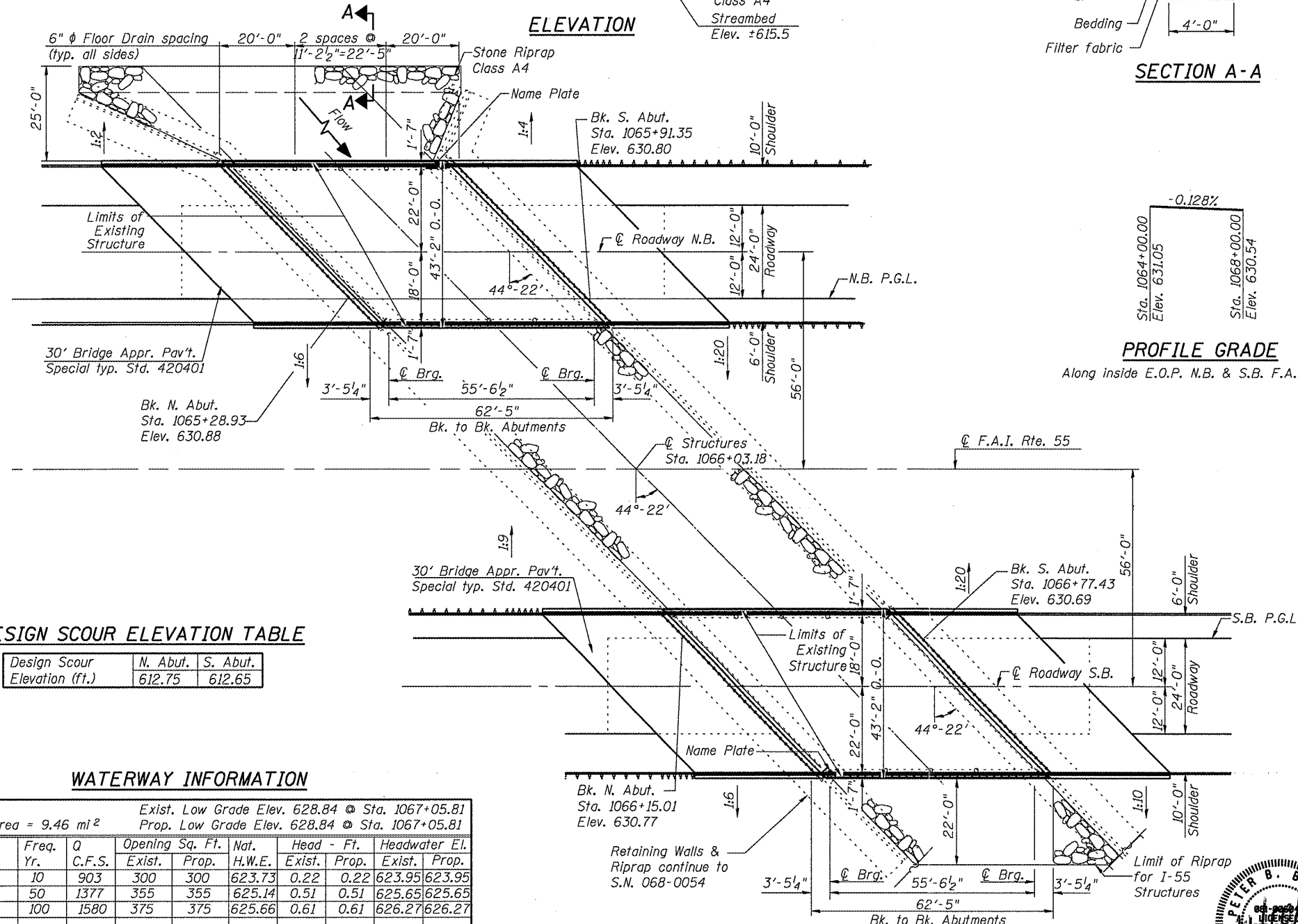
ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL PLAN**  
**I 55 OVER MACOUPIN CREEK**  
**F.A.I. ROUTE 55 - SEC. (68-4)F**  
**MONTGOMERY COUNTY**  
**STATION 1066+03.18**  
**STRUCTURE NO. 068-0038 N.B.**  
**STRUCTURE NO. 068-0039 S.B.**

DATE: 04-08  
REVISED:  
DRAWN BY: MLO  
CHECKED BY: PBB

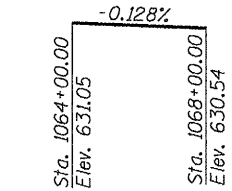


**ELEVATION**



**PROFILE GRADE**

Along inside E.O.P. N.B. & S.B. F.A.I. Rte. 55



**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	612.75	612.65

**WATERWAY INFORMATION**

Drainage Area = 9.46 mi<sup>2</sup>    Exist. Low Grade Elev. 628.84 @ Sta. 1067+05.81  
Prop. Low Grade Elev. 628.84 @ Sta. 1067+05.81

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	903	300	300	623.73	0.22	0.22	623.95	623.95
Base	50	1377	355	355	625.14	0.51	0.51	625.65	625.65
Overturning	100	1580	375	375	625.66	0.61	0.61	626.27	626.27
Max. Calc.	500	2062	410	410	626.57	1.01	1.01	627.58	627.58

10 year velocity through existing bridge = 2.88 fps  
10 year velocity through proposed bridge = 2.87 fps

**PLAN**