

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.

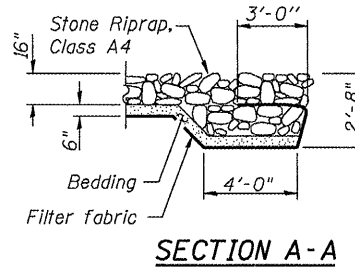
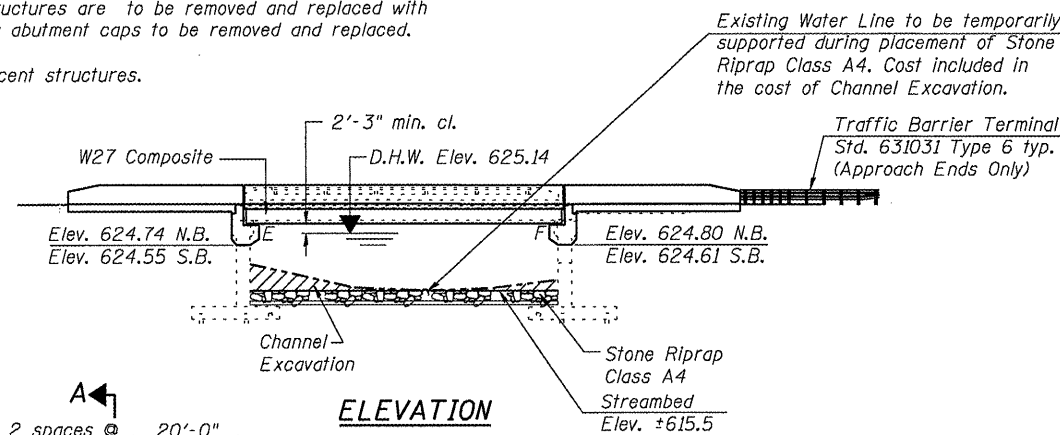
Existing Structure: S.N. 068-0038 N.B. and S.N. 068-0039 S.B. Built in 1970 as F.A.I. Rte. 55. Section 68-4B-1 at Sta. 1066+03.18. Existing dual structures each consist of 1-span precast, prestressed concrete deck beams supported by closed abutments on steel piled footings. 61'-8" Bk to Bk of abutments 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 NO.	SHEET NO. 1
F.A.I. 55	(68-4)F	MONTGOMERY	145	41	23 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72032-72A63



INDEX OF SHEETS

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- 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

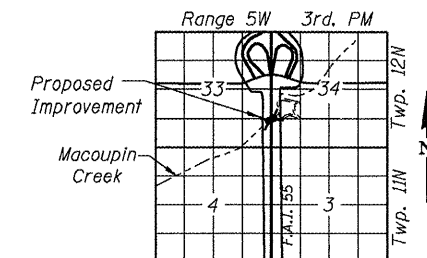
See Std. 515001

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

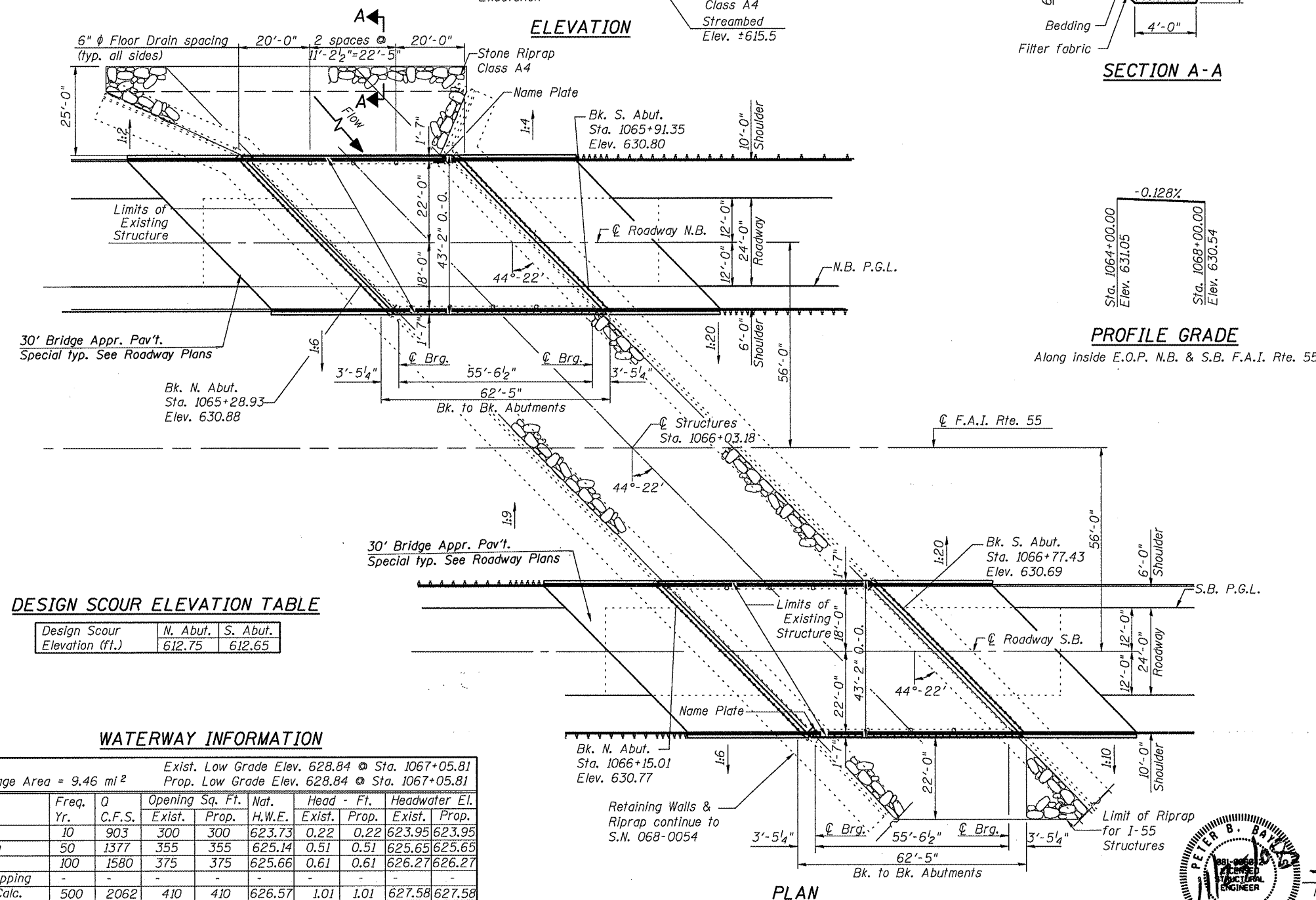
APPROVED

FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH



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

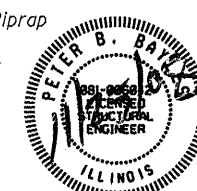
WATERWAY INFORMATION

Drainage Area = 9.46 mi²
 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.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
10	903	300	300	300	623.73	0.22	0.22	623.95	623.95	623.95
Design	50	1377	355	355	625.14	0.51	0.51	625.65	625.65	625.65
Base	100	1580	375	375	625.66	0.61	0.61	626.27	626.27	626.27
Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	2062	410	410	626.57	1.01	1.01	627.58	627.58	627.58

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

PLAN



Peter B. Bayles
 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
 REVISIONS:
 DRAWN BY: MLO
 CHECKED BY: PBB