

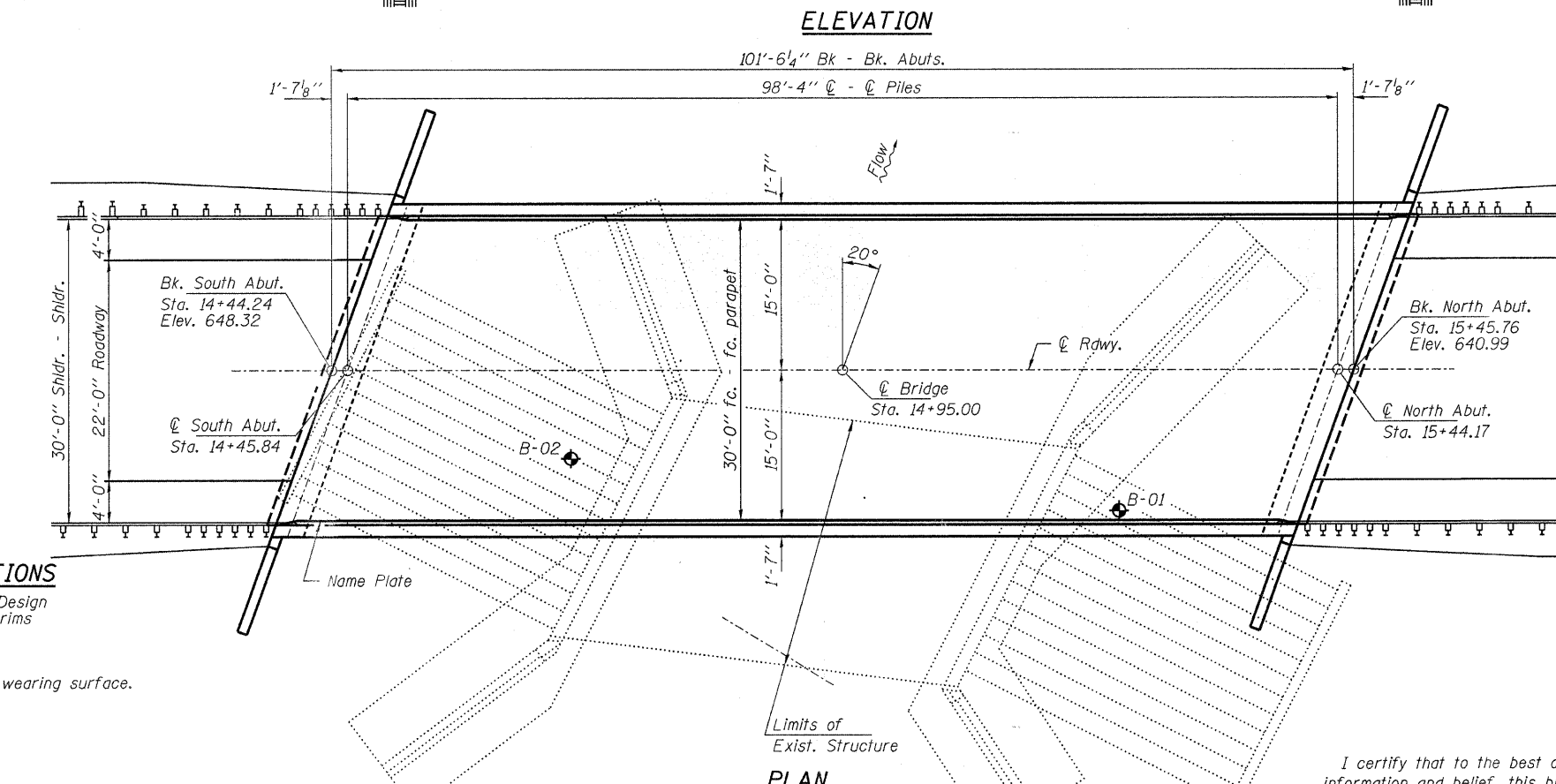
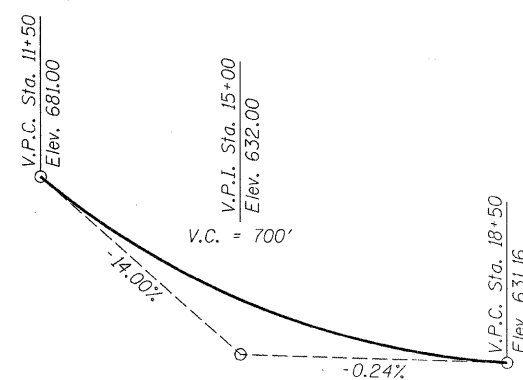
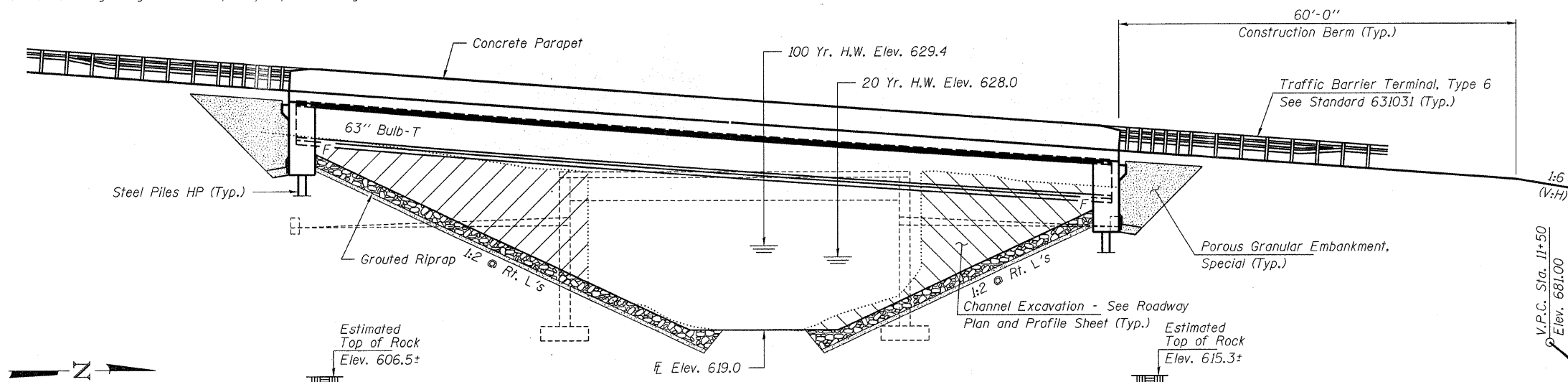
Bench Mark: Chiseled "□" on east curb, 39' Rt., Sta. 14+82., Elev. 639.92.

Existing Structure: Single span steel I-Beam bridge with cast in place concrete deck on closed concrete abutments and wingwalls. Each abutment includes steel rod tie backs and concrete deadman, 38.7' fc.-fc. abuts.; 25.1' o.-o. deck. Existing bridge to be completely replaced using road closure.

No Salvage.

INDEX OF SHEETS

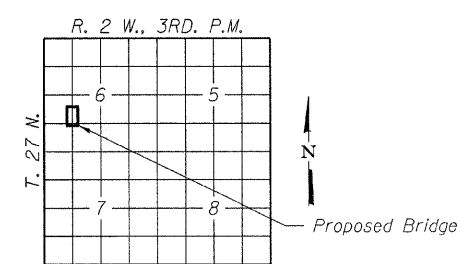
1. General Plan & Elevation
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PROFILE GRADE
(Along Centerline Roadway.)

PARTRIDGE CREEK
BUILT 200... BY
WOODFORD COUNTY
METAMORA ROAD DISTRICT
SEC. 05-08145-00-BR
STR. NO. 102-3210
LOADING HL-93

NAME PLATE
See Std. 515001



LOCATION SKETCH

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.110g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.173g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 5.0 Sq. Mi.		Existing Low Grade Elev. 630.8 @ Sta. 20+00		Proposed Low Grade Elev. 630.8 @ Sta. 20+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.
Design	20	1,630	250	628.0	0.2	628.2
Base	100	2,547	310	629.4	0.9	630.3
Overtopping						
Max. Calc.	500	3,554	340	630.3	2.2	632.5
			410		1.9	632.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut. 632.0	S. Abut. 635.0
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DESIGNED - S.M.S.
CHECKED - M.D.C.
DRAWN - D.A.B.
CHECKED - S.W.M.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Michael D. Curo
ILLINOIS STRUCTURAL NO. 081-5984



2-3-2009
Expires 11-30-2010

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 102-3210

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 07.0373.130 DATE: 02/02/09	SHEET NO. 1	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16 SHEETS	50	05-08145-00-BR	WOODFORD	47	29
		METAMORA ROAD DISTRICT		CONTRACT NO. 89448		
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		