Bench Mark: BM #109 is an iron pin with cap at Station 447+11.89, 22.78' RT.
Elevation = 648.62

Existing Structure: S.N. 068-3012 was built in 1936 as Section 11BWPSO at Station 441+62.50 by the Illinois Department of Transportation as a reinforced concrete slab (30±cy) bridge on steel stringers (11±kips) (and reinforced concrete closed abutments. There have been no known major reconstruction activities on this structure since its installation. The back to back of abutments dimension is 47'-0", the out to out width is 25'-0" and the bridge roadway clear width is 24'-0". The structure has 3" to 4" of oil and chip surfacing built up as the wearing surface. The roadway will remain closed to through traffic during construction, and local detours will be in place.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN SPECIFICATIONS
2007 AASHTO LRFD Bridge Design Specifications
with 2008 Interims

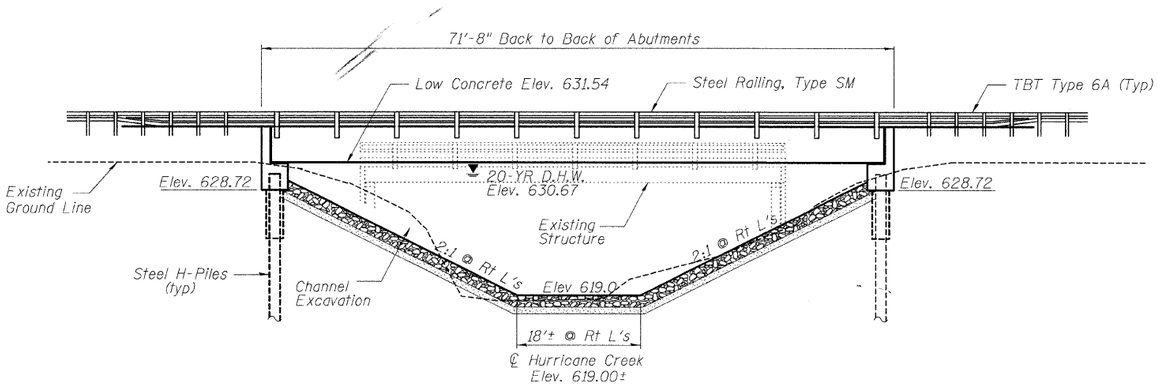
LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

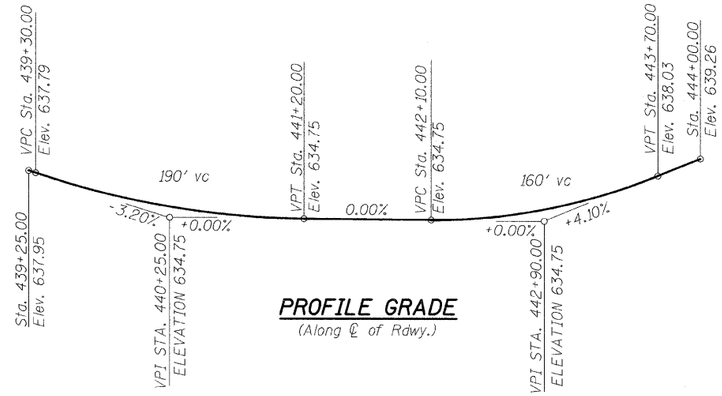
HIGHWAY CLASSIFICATION
F.A.S. 723 - Ch #7 Nokomis Road
Functional Class: Major Collector (Non-Urban)
Current ADT: 1156
ADTT: 3%

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.20
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.44
Soil Site Class = D

GENERAL NOTES
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.



ELEVATION
(Looking East)

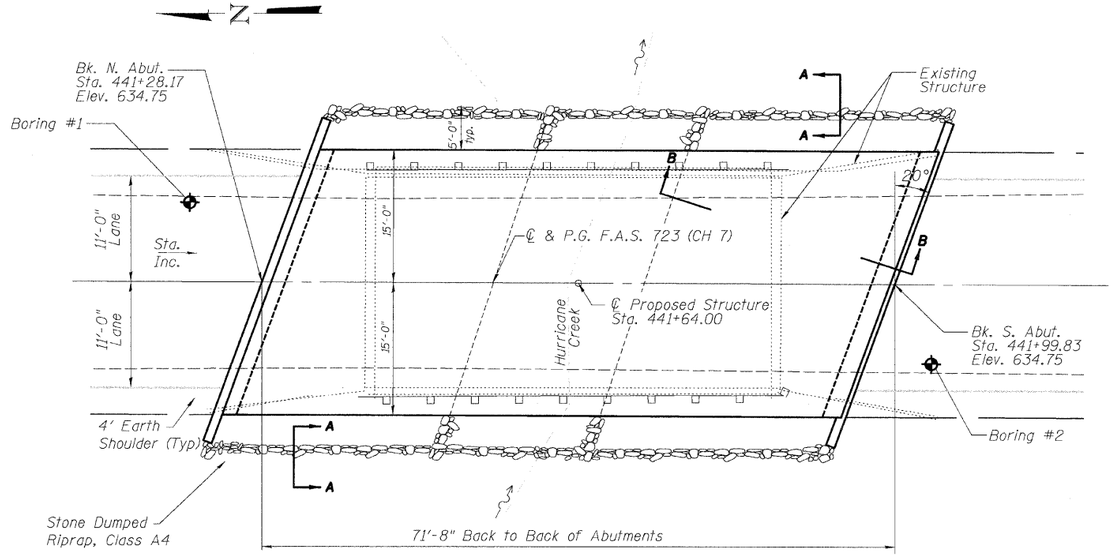


PROFILE GRADE
(Along ℄ of Rdwy.)

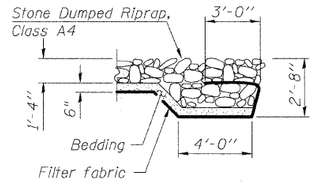
TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER.	SUB	TOTAL
	Filter Fabric	Sq. Yd.		340	340
	Stone Dumped Riprap, Class A4	Sq. Yd.		340	340
	Removal of Existing Structures	Each	1		1
	Structure Excavation	Cu. Yd.		82	82
	Concrete Structures	Cu. Yd.		27.2	27.2
*	Concrete Encasement	Cu. Yd.		4.2	4.2
*	Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,100		2,100
	Reinforcement Bars	Pound		3,530	3,530
	Steel Railing, Type SM	Foot	140		140
*	Furnishing Steel Piles HP 10x42	Foot		415	415
	Driving Piles	Foot		415	415
	Test Pile Steel HP 10x42	Each		1	1
	Name Plates	Each	1		1
	Portland Cement Mortar Fairing Course	Foot	630		630

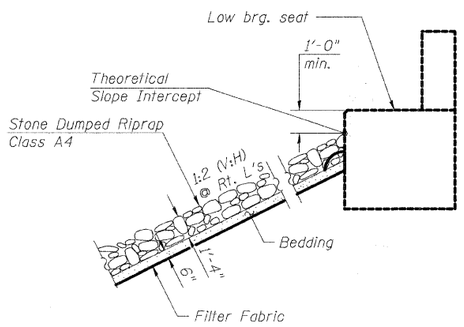
* See Special Provisions



PLAN



SECTION A-A



SECTION B-B

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	N/A	N/A

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 "A.A.S.H.T.O. Standard Specification for Highway Bridges."

DESIGNED JLG
CHECKED JSP
DRAWN UJ
CHECKED CJC

HURST-ROSCHE ENGINEERS, INC.
PROFESSIONAL DESIGN NUMBER: 184-000298

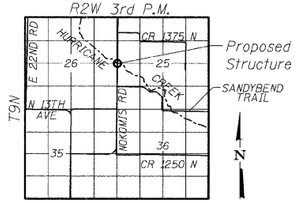
John S. Peradotti 9-10-09
JOHN S. PERADOTTI, S.E.
ILLINOIS STRUCTURAL NO. 5671
EXPIRES: NOVEMBER 30, 2010

LICENSED STRUCTURAL ENGINEER — JOHN S. PERADOTTI 81-005671 JACKSONVILLE — STATE OF ILLINOIS

WATERWAY INFORMATION

Drainage Area = 6.51 sq. mi. Low Grade Elev. 633.65 ft @ Sta. 441+64

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
	10	2031	326	405	630.02	0.54	0.35	630.56	630.37
Design	20	2520	356	445	630.67	0.91	0.58	631.58	631.25
Overtoping	-	-	-	-	-	-	-	633.65	634.75
Max. Calc.	100	3937	366	511	632.02	2.39	1.43	634.41	633.45



LOCATION SKETCH

HURRICANE CREEK
BUILT 2010 BY
MONTGOMERY COUNTY
SEC. 08-00129-00-BR
STATION 441+64.00
STRUCTURE NO. 068-3359
LOADING HL-93

NAME PLATE
See Std. 515001

GENERAL PLAN & ELEVATION
NOKOMIS ROAD OVER
HURRICANE CREEK
F.A.S. 723 - SEC. 08-00129-00-BR
MONTGOMERY COUNTY
STATION 441+64.00
STRUCTURE NO. 068-3359

SHEET NO. 1	F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9 SHEETS	723	08-00129-00-BR	MONTGOMERY	18	5
			CONTRACT NO. 93498		
	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		