

Limits of

Existing Structure

Limits of Stone Riprap

SECTION A-A

Note: See Special Provisions for Stone Riprap, Class A4.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Ton			450
ilter Fabric	Sg. Yd.			623
Structure Excavation	Cu. Yd.		88	88
Concrete Structures	Cu. Yd.		85.5	85.5
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (17'' Depth)	Sq. Ft.	1,488		1,488
Precast Prestressed Concrete Deck Beams (27'' Depth)	Sq. Ft.	1,536		1,536
Reinforcement Bars	Pound		8,400	8,400
Steel Ralling, Type S1	Foot	255		255
Steel Piles HP10x42	Foot		410	410
est Pile Steel HPIOx42	Each		1	1
lame Plates	Each		1	1
Setting Piles in Rock	Each		10	10
Inderwater Structure Protoction - Location 1	Each			1
Inderwater Structure Protoction - Location 2	Each .			1

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi

f'ci = 4,000 psi

f's = 270,000 psi (${}^{1}_{2}$ " ϕ low lax. strands) f'si = 201,960 psi (${}^{1}_{2}$ " ϕ low lax. strands) fy = 60,000 psi (Reinf.)

Design Specifications: 2002 AASHTO & all applicable interims. 25#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

+37 17'

Name Plate

See sheet 10 for location.

Seismic Performance Category (SPC) = A Bedrock Acceleration Coefficient (A) = 0.065g Site Coefficient (S) = 1.0

WATERWAY INFORMATION

PLAN

Drainage Area = 41.6 Sq. Mi. Low Grade Elev. 547.9 © Sta. 5+00									
Flood	Freq. Q		Opening	Sq. Ft.	Natural	Head - Ft.		Headwater El.	
	Yr.	<i>C.F.S.</i>	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	15	4,100	990	1,040	549.9	0.1	0.1	550.0	550.0
Base	100	6,450	1,090	1,170	551.1	0.1	0.1	551.2	551.2
Max. Calc.	500	8,330	1,130	1,210	551.9	0.2	0.2	552.1	552.1

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 Standard Specifications for Highway Bridges".

+<u>57</u> 17'

Stun W. Megnison 1/27/03 ILLINOIS STRUCTURAL NO. 081-6064

Expires 11-30-08

HAMPTON, LENZINI & RENWICK, INC.

HER

3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400

ELGIN . SPRINGFIELD PROJECT NUMBER: 12-87-0018-1 DATE: 01/23/08 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.T.M.

GENERAL PLAN AND ELEVATION SECTION 06-03113-00-BR

CLARKSBURG ROAD DISTRICT SHELBY COUNTY

STRUCTURE NO. 087-3561 / STATION 10+00