

B.M.:

RR Spike in Power Pole
Sta. 15+90, 27' Rt.
Elev. 592.38

RR Spike in Power Pole
Sta. 26+48, 25' Rt.
Elev. 592.49

EXISTING STRUCTURE:

Three span reinforced concrete slab with monolithic concrete rail superstructure on concrete encased piers and concrete vertical abutments with concrete wingwalls, all supported by concrete footings on timber piling. The structure is 66'-0" back to back of abutments, 25'-1" out to out of deck, and on a 0° skew.

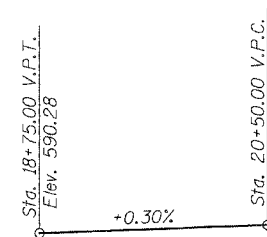
Salvage: None

Road to be closed to traffic during construction.

GOOSEBERRY CREEK
BUILT 200_ BY
GRUNDY COUNTY
SEC. 03-00127-00-BR
F.A.S. 292 (C.H. 49) STATION 20+00.00
F.A. PROJ. BRS-292(101)
STR. NO. 032-3295 LOADING HS20-44

NAME PLATE

Locate Name Plate at S.W. Wingwall
Corner of Bridge (See Std. 515001)



PROFILE GRADE

ROUTE NO. FAS 292 (CH 49)	SECTION *	COUNTY GRUNDY	TOTAL SHEETS 17	SHEET NO. 7	SHEET NO. 1 8 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT BRS-292(101)	CONTRACT #87282	
* 03-00127-00-BR					

GENERAL NOTES

The Contractor shall drive 2 test piles, in permanent locations, one at the West Abutment and one at Pier #2, as directed by the Engineer before ordering the remaining piles.

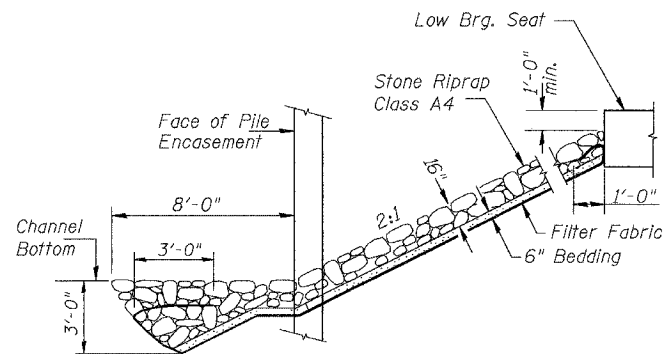
For Soil Boring Logs, See Special Provisions.
A Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for Precast Prestressed Concrete Deck Beams.
Reinforcement Bars shall conform to AASHTO M-31 or M-322, Grade 60.
Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".

TOTAL BILL OF MATERIAL

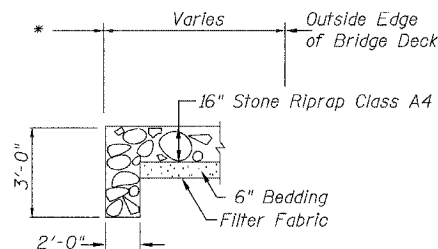
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	700	700
Stone Riprap, Class A4	TON	---	695	695
Filter Fabric for use with Riprap	SQ YD	---	775	775
Removal of Existing Structures	EACH	---	1	1
Concrete Structures	CU YD	---	41.5	41.5
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	2,880	---	2,880
Reinforcement Bars	POUND	---	4,620	4,620
Steel Railing, Type S-1	FOOT	196	---	196
Furnishing Metal Pile Shells 12"	FOOT	---	771	771
Driving and Filling Shells	FOOT	---	771	771
Test Pile Metal Shells	EACH	---	2	2
Concrete Encasement	CU YD	---	16.5	16.5
Name Plates	EACH	---	1	1
Waterproofing Membrane System	SQ YD	320	---	320
Portland Cement Mortar Fairing Course	FOOT	220	---	220
Bituminous Concrete Surface Course, Superpave Mix "C", N50	TON	37	---	37
Underwater Structure Excavation Protection, Location 1 (Pier #1)	EACH	---	1	1
Underwater Structure Excavation Protection, Location 2 (Pier #2)	EACH	---	1	1
Controlled Low-Strength Material	CU YD	---	14.0	14.0

① See Special Provisions

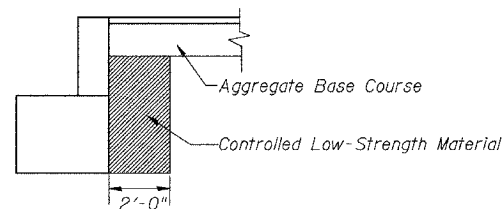


STONE RIPRAP DETAIL

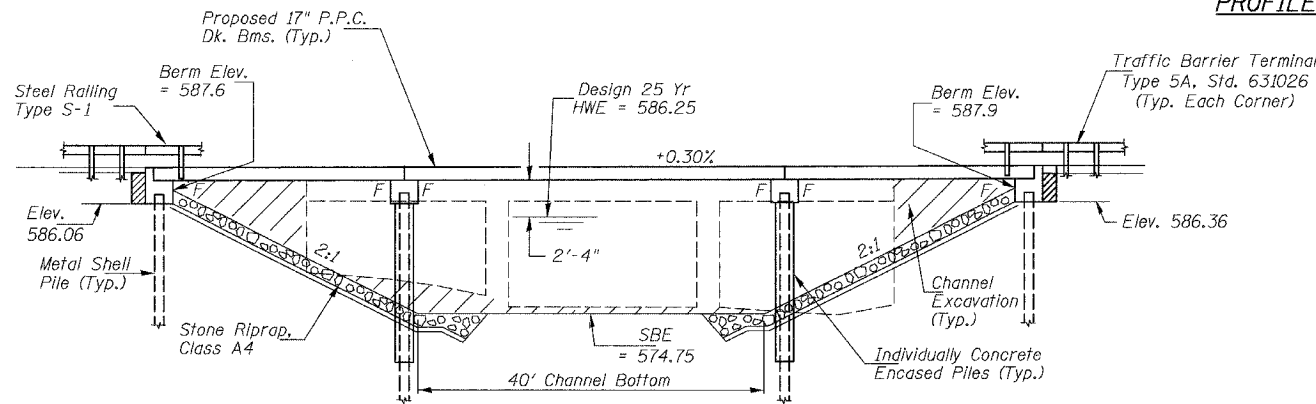
* Near Edge of Aggregate Ditch or Back Edge of Unprotected Ditch



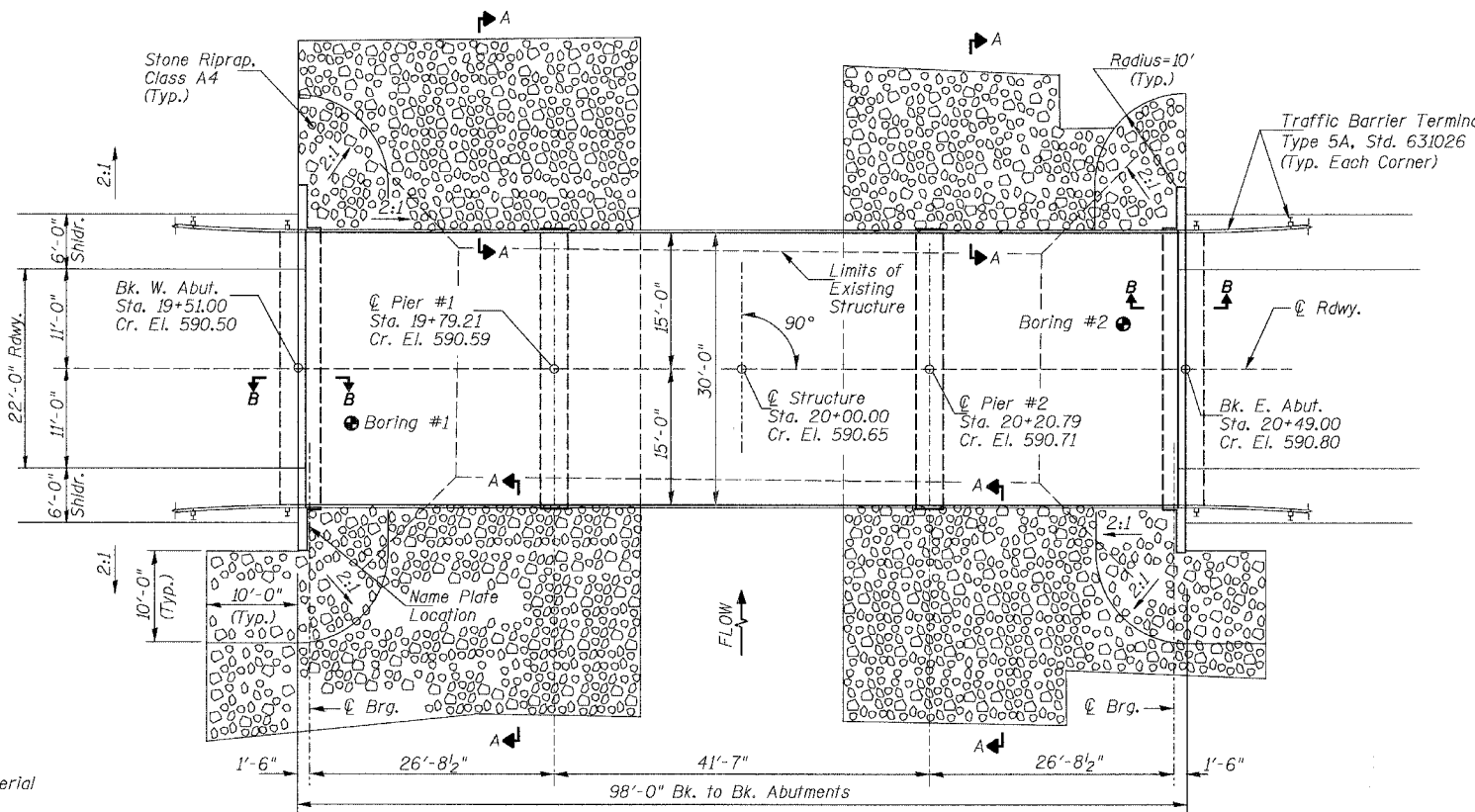
SECTION A-A



SECTION B-B



ELEVATION



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO & Interims

DESIGN STRESSES

(FIELD UNITS) f'c = 3,500 p.s.i., ty = 60,000 p.s.i. (Rein.)
(PRECAST PRESTRESSED UNITS) f'c = 5,000 p.s.i., f'ci = 4,000 p.s.i., f's = 270,000 p.s.i. (1/2" Strands), f'si = 201,960 p.s.i. (1/2" Strands)

LOADING HS20-44

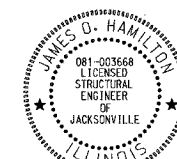
Allow 50#/sq. ft. future wearing surface.

WATERWAY INFORMATION

Drainage Area = 39.18 Sq. Mi.		Low Grade Elev. = 590.21 @ Sta. 18+32.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Nat. H.W.E. ft.	Head - ft.		Headwater Elev. - ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	25	2,559	528	682	586.25	0.22	0.08	586.47	586.33
Base	100	3,314	573	744	587.01	0.33	0.11	587.34	587.12

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 12

DESIGNED	J.E.H.
CHECKED	B.A.N.
DRAWN	T.A.C./T.R.D.
CHECKED	J.E.H.



James O. Hamilton
2/3/2005
License Expires 11/30/2006

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 Specification for Highway Bridges.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

James O. Hamilton
Illinois Structural No. 3668
Expires 11/30/2006

GENERAL PLAN & ELEVATION
F.A.S. 292 (C.H. 49) OVER GOOSEBERRY CREEK
SECTION 03-00127-00-BR
GRUNDY COUNTY
STATION 20+00.00
STR. NO. 032-3295

