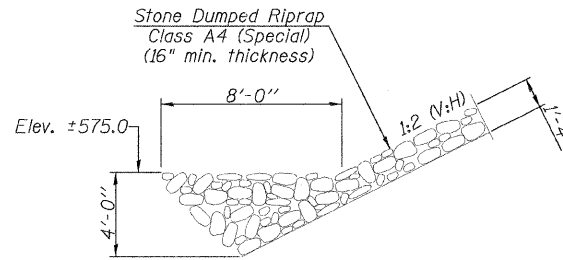


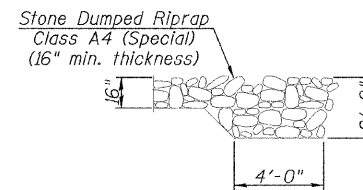
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	06-00088-00-BR	MACOUPIN	35	7
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO.		

GENERAL NOTES

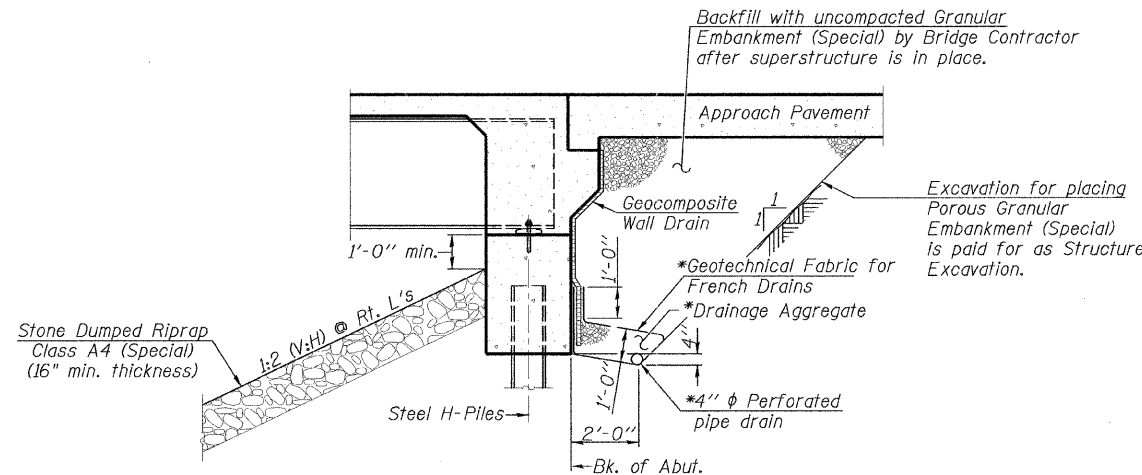
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. ϕ , holes 15/16 in. ϕ , unless otherwise noted. Calculated weight of Structural Steel = 314050 pounds. No field welding is permitted except as specified in the contract documents. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures". Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2. The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.



SECTION A-A



SECTION B-B



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures, 4"

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			945
Porous Granular Embankment (Special)	Cu. Yd.			161
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		214	214
Cofferdam (Type 1) (Location 1)	Each		1	1
Cofferdam (Type 1) (Location 2)	Each		1	1
Concrete Structures	Cu. Yd.	22.2	134.7	156.9
Concrete Superstructure	Cu. Yd.	417.7		417.7
Bridge Deck Grooving	Sq. Yd.	1096		1096
Concrete Encasement	Cu. Yd.		4.2	4.2
Protective Coat	Sq. Yd.	1160		1160
Furnishing & Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3726		3726
Reinforcement Bars, Epoxy Coated	Pound	105040	13460	118500
Bar Splicers	Each	72		72
Mechanical Splicers	Each			56
Steel Railing, Type SM	Foot	580		580
Furnishing Steel Piles HP 12 x 53	Foot		305	305
Furnishing Steel Piles HP 12 x 84	Foot		480	480
Driving Piles	Foot		305	305
Test Pile Steel HP 12 x 53	Foot		2	2
Test Pile Steel HP 12 x 84	Each		2	2
Name Plates	Each	1		1
Anchor Bolts 1"	Each		48	48
Geocomposite Wall Drain	Sq. Yd.		76	76
Setting and Driving Piles in Rock	Each		12	12
Stone Dumped Riprap, Class A4 (Special)	Ton			862
Pipe Underdrains for Structures, 4"	Foot		150	150

LOADING HL-93

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

DESIGN STRESSES

$f'_c = 3500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M 270 Grade 50 Structural Steel)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition with Interims

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.06g
Site Coefficient (s) = 1.0

MACOUPIN CREEK
BUILT 20 BY
MACOUPIN COUNTY
SECTION 06-00088-00-BR
F.A.S. RT. 733 STA. 95+23
STR. NO. 059-3307 LOADING HL-93

NAME PLATE
(Standard 515001)

WATERWAY INFORMATION

Drainage Area = 129.23 Sq. Mi.		Pr. Low Grade Elev. 589.1		Sta. 88+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Natural H.W.E.	Head - ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	20	8224	2795 3215	583.2	0.1 0.1	583.3 583.3
Base	100	12129	3459 3936	585.9	0.1 0.1	586.0 586.0
Exist. Overtop.	Greater than 500 years					
Prop. Overtop.	Greater than 500 years					
Max. Calc.	500	15997	3814 4423	588.2	0.1 0.0	588.3 588.2