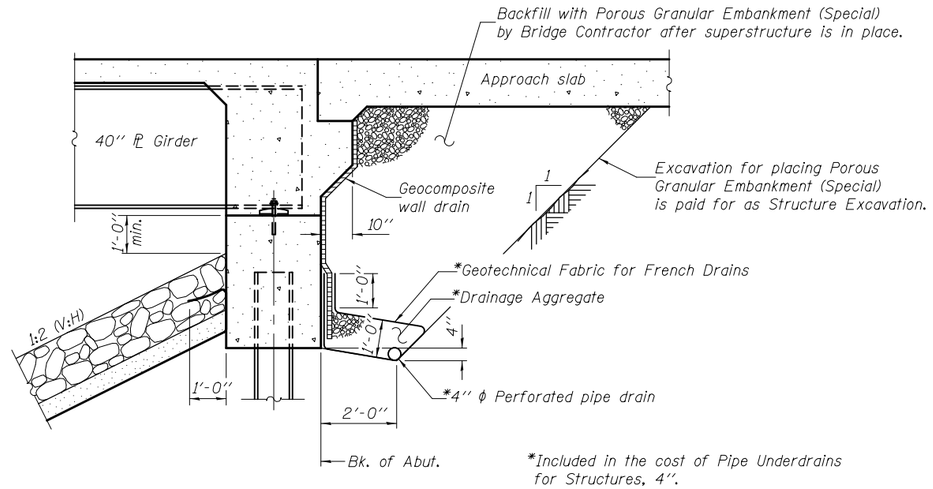
TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.		153	153
	Stone Riprap, Class A4	Sq. Yd.		908	908
	Filter Fabric	Sq. Yd.		908	908
	Removal of Existing Structures	Each			1
	Structure Excavation	Cu. Yd.		374	374
	Floor Drains	Each	36		36
	Concrete Structures	Cu. Yd.		162.0	162.0
	Concrete Superstructure	Cu. Yd.	543.3		543.3
	Bridge Deck Grooving	Sq. Yd.	1401		1401
	Concrete Encasement	Cu. Yd.		19.8	19.8
	Protective Coat	Sq. Yd.	1773		1773
**	Furnishing and Erecting Structural Steel	L. Sum			1
	Stud Shear Connectors	Each	8406		8406
	Reinforcement Bars, Epoxy Coated	Pound	132450	14940	147390
	Bar Splicers	Each	1188	180	1368
	Furnishing Steel Piles HP14x73	Foot		2699	2699
	Driving Piles	Foot		2699	2699
	Test Pile Steel HP14x73	Each		4	4
	Temporary Sheet Piling	Sq. Ft.		932	932
	Name Plates	Each	1		1
	Anchor Bolt 1″ ϕ	Each		48	48
	Geocomposite Wall Drain	Sq. Yd.		81	81
	Pipe Underdrains for Structures, 4″	Foot		150	150
	Diamond Grinding (Bridge Section)	Sq. Yd.	1318		1318
	Asbestos Bearing Pad Removal	Each		140	140
	Underwater Structure Excavation Protection, Location 1	Each			1
	Underwater Structure Excavation Protection, Location 2	Each			1

** See Special Provision for Structural Steel for Bridges.

INDEX OF SHEETS



SECTION THRU INTEGRAL ABUTMENT

Notes: 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).

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3. Bolts $\frac{7}{8}$″ ϕ, holes $\frac{15}{16}$″. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 324620 lbs.

All structural steel shall be Grade 50W. ** All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

Reinforcement bars shall conform to the requirements of AASHTO A 706, Grade 60.

Up to $\frac{1}{4}$″ shall be ground off the bridge slab and the bridge approach slab. The profile grade shown on sheet 1 of 30 is the final elevation after grinding.

All test piles shall be driven utilizing dynamic pile monitoring procedures. See Special Provisions.

Slipforming of the parapets is not allowed.

WATERWAY INFORMATION

Drainage Area = 118.2 mi.²

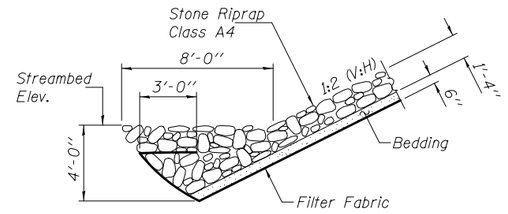
Existing Low Grade Elev. 683.30 @ Sta. 420+00
Proposed Low Grade Elev. 683.75 @ Sta. 417+00

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 El. Exist.	Headwater El. Prop.
	10	6410	1799	2050	680.4	1.0	1.0	681.4	681.4
Design	50	10200	2159	2436	681.7	1.7	1.6	683.4	683.3
Base	100	11800	2270	2556	682.1	2.1	2.0	684.2	684.1
Overtop Exist.	250	14100	2388		682.7	1.0		683.7	
Overtop Prop.	450	15600		2672	683.0		0.8		683.8
Max. Calc.	500	15800	2388	2672	683.1	1.1	0.8	684.2	683.9

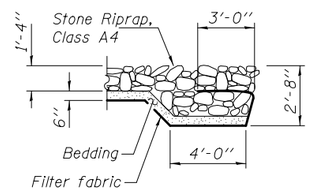
10 year velocity through existing bridge = 3.2 ft/s
10 year velocity through proposed bridge = 2.8 ft/s

DESIGN SCOUR ELEVATION TABLE

Design scour elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	678.6	647.8	647.8	678.7



SECTION A-A



SECTION B-B

DESIGNED	-	Michael D. Rolape	EXAMINED	Thomas J. Domagalski	DATE	-	OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 057-0244	F.A.P. RTE. 315	SECTION 121 BR-2	COUNTY MCLEAN	TOTAL SHEETS 144	SHEET NO. 50
CHECKED	-	Nicholas R. Barnett		ENGINEER OF BRIDGE DESIGN										
DRAWN	-	h.t. duong	PASSED	Carl Puzey								CONTRACT NO. 70552		
CHECKED	-	MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES					SHEET NO. 2 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		