

LOCATION OF WORK: US 136 US 136
RURAL TWO LANE RURAL TWO LANE
BRIDGE REPLACEMENT BRIDGE REPLACEMENT
MCLEAN COUNTY MCLEAN COUNTY
STA. 415+00 TO STA 442+00 STA. 415+00 TO STA 442+00
OVER KICKAPOO CREEK OVER KICKAPOO CREEK
1.3 MI W OF U.S. 51 1.3 MI W OF U.S. 51

FUNDING BREAKOUT: 80% FEDERAL / 20% STATE 80% FEDERAL / 20% STATE
CONSTRUCTION TYPE CODE: 0004 0011

CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	750.0	0.0	750.0
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	500.0	0.0	500.0
20200100	EARTH EXCAVATION	CU YD	3,350.0	0.0	3,350.0
20700220	POROUS GRANULAR EMBANKMENT	CU YD	265.0	0.0	265.0
21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	40.0	0.0	40.0
* 25000210	SEEDING, CLASS 2A	ACRE	4.0	0.0	4.0
* 25000350	SEEDING, CLASS 7	ACRE	4.0	0.0	4.0
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0
* 25100115	MULCH, METHOD 2	ACRE	8.0	0.0	8.0
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	400.0	0.0	400.0
28000305	TEMPORARY DITCH CHECKS	FOOT	180.0	0.0	180.0
28000400	PERIMETER EROSION BARRIER	FOOT	3,950.0	0.0	3,950.0
28000500	INLET AND PIPE PROTECTION	EACH	5.0	0.0	5.0
28100107	STONE RIPRAP, CLASS A4	SQ YD	350.0	1,090.0	1,440.0
28200200	FILTER FABRIC	SQ YD	350.0	1,090.0	1,440.0
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	170.0	705.0	875.0
35800200	AGGREGATE BASE REPAIR	TON	11.0	0.0	11.0
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	100.0	0.0	100.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	725.0	0.0	725.0

1,090.0 1,440.0
1,090.0 1,440.0

* DENOTES SPECIALTY ITEM

REVISER 11/8/11

FILE NAME =	USER NAME = hoganbj	DESIGNED - BJH 7/12/2011	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwidat\hoganbj\d0142533\0570552-sh1-500.dgn		DRAWN -	REVISED -		315	121BR-2	MCLEAN	144	6			
PLOT SCALE = 100.0000 1" = 100'		CHECKED -	REVISED -		CONTRACT NO. 70552							
PLOT DATE = 8/22/2011		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

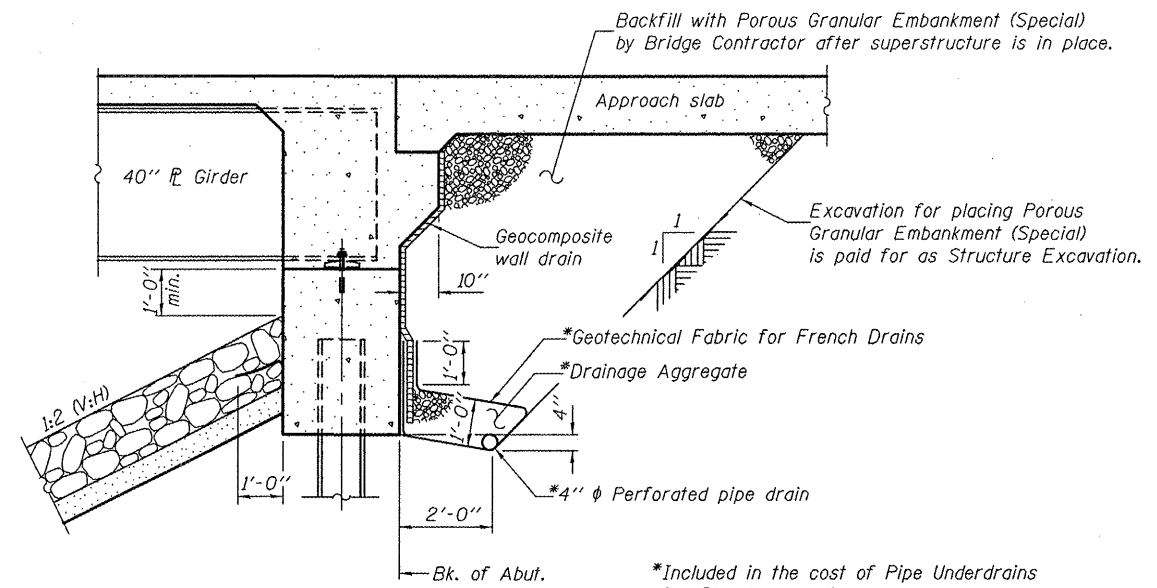
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		153	153
Stone Riprap, Class A4	Sq. Yd.		1090	1090
Filter Fabric	Sq. Yd.		1,090	1,090
Removal of Existing Structures	Each		1	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

- 1 General Plan & Elevation
- 2 General Data
- 3 Stage Construction & Temporary Sheet Piling Details
- 4 Modified Temporary Concrete Barrier Details
- 5-8 Top of Slab Elevations
- 9 Top of West Approach Slab Elevations
- 10 Top of East Approach Slab Elevations
- 11 Superstructure
- 12 Superstructure Details
- 13 Integral Abutment Diaphragm Details
- 14-15 Bridge Approach Slab Details
- 16 Structural Steel
- 17 Structural Steel Details
- 18 Bearing Details
- 19 West Abutment
- 20 East Abutment
- 21 Pier 1
- 22 Pier 2
- 23 Bar Splicer Assembly Details
- 24 Steel H Pile Details
- 25-30 Soil Boring Logs



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 7/8" φ, holes 15/16" φ, unless otherwise noted.
 Calculated weight of Structural Steel = 453,110 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 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 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.

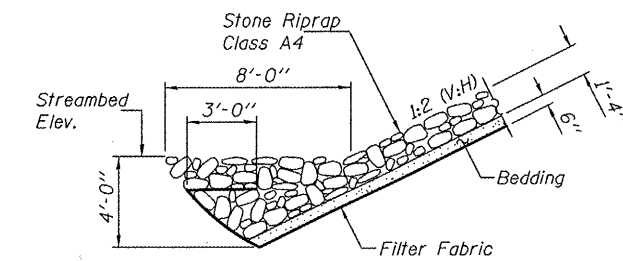
WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
				Existing Low Grade Elev. 683.30 @ Sta. 420+00					
				Proposed Low Grade Elev. 683.75 @ Sta. 417+00					
Design	10	6410	1799	2050	680.4	1.0	1.0	681.4	681.4
Base	50	10200	2159	2436	681.7	1.7	1.6	683.4	683.3
Overtop Exist.	100	11800	2270	2556	682.1	2.1	2.0	684.2	684.1
Overtop Prop.	250	14100	2388		682.7	1.0		683.7	
Max. Calc.	450	15600	2672		683.0	0.8	0.8	683.8	
	500	15800	2388	2672	683.1	1.1	0.8	684.2	683.9

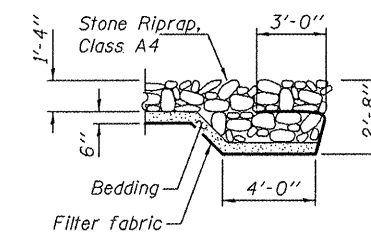
10 year velocity through existing bridge = 3.2 ft/s
 10 year velocity through proposed bridge = 2.8 ft/s

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

REVISION 11/8/11