

SUMMARY OF QUANTITIES

80% FEDERAL
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	80% FEDERAL 20% STATE	
				ROADWAY 0004	STRUCTURE 0011
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	18	18	
20200100	EARTH EXCAVATION	CU YD	178	178	
20400800	FURNISHED EXCAVATION	CU YD	804	804	
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	168		168
* 25000210	SEEDING, CLASS 2A	ACRE	1	1	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	71	71	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	71	71	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	71	71	
* 25100115	MULCH, METHOD 2	ACRE	1	1	
* 25100630	EROSION CONTROL BLANKET	SQ YD	556	556	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	158	158	
28000400	PERIMETER EROSION BARRIER	FOOT	2237	2237	
28100107	STONE RIPRAP, CLASS A4	SQ YD	1312	25	1287
28200200	FILTER FABRIC	SQ YD	1287		1287
31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	863	863	
35600708	HOT-MIX ASPHALT BASE COURSE WIDENING, 8"	SQ YD	993	993	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	230	230	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	343	343	
40600300	AGGREGATE (PRIME COAT)	TON	11	11	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	288	288	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	426	426	
40600990	TEMPORARY RAMP	SQ YD	42	42	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1635	1635	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	302	302	
42001105	BRIDGE APPROACH PAVEMENT	SQ YD	254	254	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	59	59	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	283	283	
44200144	PAVEMENT PATCHING, TYPE II, 12 INCH	SQ YD	7	7	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	659	659	
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	961	961	
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD	200	200	

REVISD OCTOBER 19, 2010

CODE NO.	ITEM	UNIT	TOTAL	80% FEDERAL 20% STATE	
				ROADWAY 0004	STRUCTURE 0011
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	63	63	
50200100	STRUCTURE EXCAVATION	CU YD	210		210
50300225	CONCRETE STRUCTURES	CU YD	161.4		161.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	340.1		340.1
50300260	BRIDGE DECK GROOVING	SQ YD	839		839
50300280	CONCRETE ENCASEMENT	CU YD	4		4
50300300	PROTECTIVE COAT	SQ YD	1023		1023
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	3402		3402
50800105	REINFORCEMENT BARS	POUND	11480		11480
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	110540		110540
50800515	BAR SPLICERS	EACH	1209		1209
51201610	FURNISHING STEEL PILES HP12X63	FOOT	231		231
51202305	DRIVING PILES	FOOT	231		231
51203610	TEST PILE STEEL HP12X63	EACH	1		1
51500100	NAME PLATES	EACH	1		1
51603000	DRILLED SHAFT IN SOIL	CU YD	9.2		9.2
51604000	DRILLED SHAFT IN ROCK	CU YD	44		44
52100510	ANCHOR BOLTS, 3/4"	EACH	24		24
52100520	ANCHOR BOLTS, 1"	EACH	24		24
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	59	59	
54213447	END SECTIONS 12"	EACH	1	1	
54213450	END SECTIONS 15"	EACH	2	2	
5422A012	PIPE CULVERTS, CLASS A, TYPE 2 12" (TEMPORARY)	FOOT	35	35	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	64		64
60100945	PIPE DRAINS 12"	FOOT	27	27	
60107600	PIPE UNDERDRAINS 4"	FOOT	90	90	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	125		125
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	1	1	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	375	375	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	

* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL	80% FEDERAL 20% STATE	
				ROADWAY 0004	STRUCTURE 0011
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	531		531
66101150	HOT-MIX ASPHALT SHOULDER CURB	FOOT	6		6
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7		7
67100100	MOBILIZATION	L SUM	1		1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2		2
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1		1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1		1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	45		45
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
70106700	TEMPORARY RUMBLE STRIP	EACH	12		12
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	240		240
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6778		6778
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48		48
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2259		2259
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1514		1514
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1350		1350
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	4800		4800
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	13		13
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3		3
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16		16
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	61		61
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4		4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1600		1600
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16		16
X0323236	TEMPORARY INLET	EACH	1		1
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	283		283
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2

FILE NAME = W:\2299-03 - IL Route 2 - Roadway\DNV\CD	USER NAME = IDOTCAO	DESIGNED - SPF	REVISED -
Sheets\0366822-sht-500.DGN		DRAWN - AJP	REVISED -
PLOT SCALE = 50.0000' / 1"		CHECKED - JMS	REVISED -
PLOT DATE = 8/17/2010		DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. 10 STA.
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
F.A.P. RTE. 68	SECTION (102) BR-1	COUNTY LIVINGSTON	TOTAL SHEETS 58	SHEET NO. 3
CONTRACT NO. 66822				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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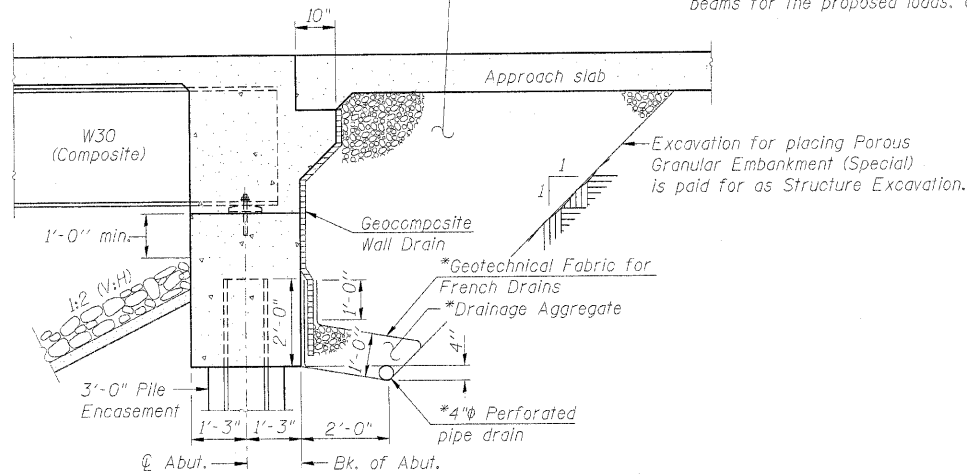
GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 3/8 in. dia., holes 1/2 in. dia., unless otherwise noted.
2. Calculated weight of Grade 50W structural steel = 129,800 pounds. 
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
8. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. Slipforming of the parapets is not allowed.
10. A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
11. All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
12. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
13. If the Contractor's procedures for existing deck beam removal or construction of the new superstructure involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the deck beams for the proposed loads. Cost included with Removal of Existing Structures.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		168	168
Stone Riprap Class A4	Sq. Yd.		1,287	1,287
Filter Fabric	Sq. Yd.		1,287	1,287
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		210	210
Concrete Structures	Cu. Yd.		161.4	161.4
Concrete Superstructure	Cu. Yd.	340.1		340.1
Bridge Deck Grooving	Sq. Yd.	839		839
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	1,023		1,023
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,402		3,402
Reinforcement Bars	Pound		11,480	11,480
Reinforcement Bars, Epoxy Coated	Pound	79,720	30,820	110,540
Bar Splicers	Each	735	474	1,209
Furnishing Steel Pile HP 12x63	Foot		231	231
Driving Piles	Foot		231	231
Test Pile Steel HP 12x63	Each		1	1
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu. Yd.		9.2	9.2
Drilled Shaft in Rock	Cu. Yd.		44.0	44.0
Anchor Bolts, 3/4"	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		64	64
Pipe Underdrains for Structures 4"	Foot		125	125
Temporary Soil Retention System	Sq. Ft.		283	283
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1

Backfill with Porous Granular Embankment (Special) by Bridge Contractor after superstructure is in place



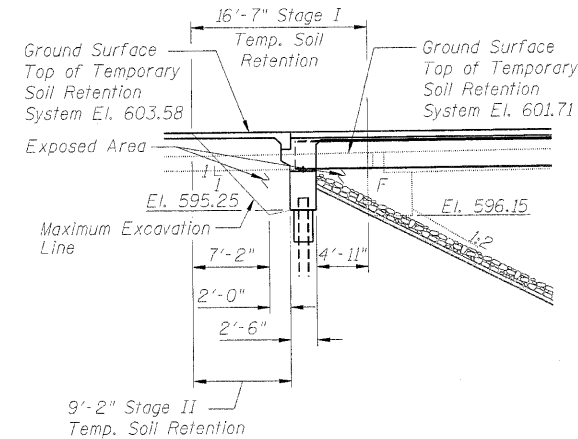
SECTION THRU ABUTMENT

*Included in the cost of Pipe Underdrain for Structures 4"

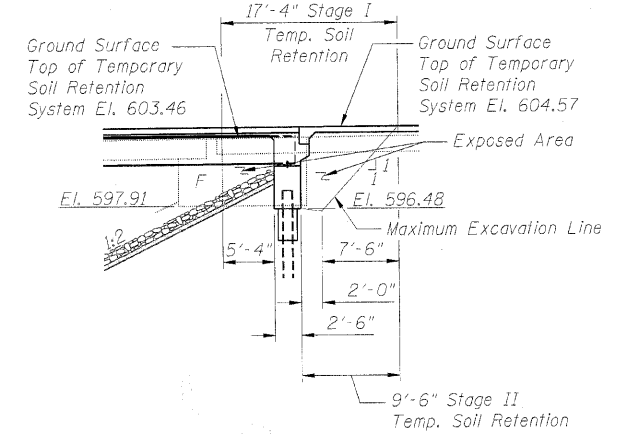
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend from the wingwall on the low side until intersecting with the side slopes. The pipe shall drain into a concrete headwall. (See Article 601.05 of the Standard Specifications and Highway Standard 601:01.)

STATION 625+84.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RTE. 68 SEC. (102)BR-1
LOADING HL-93
STRUCTURE NO. 053-0189

NAME PLATE
See Std. 515001



NORTH ABUTMENT



SOUTH ABUTMENT

TEMPORARY SOIL RETENTION SYSTEM

WATERWAY INFORMATION

Drainage Area = 79.39 sq. mi. Exist. Low Grade Elev. = 600.00 @ Sta. 624+00
Prop. Low Grade Elev. = 600.92 @ Sta. 619+70

Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	4790	1403	1729	598.6	0.7	0.1	599.3	598.7
Base	50	7550	1479	1819	599.2	0.5	0.2	599.7	599.5
Overtopping	100	8750	1520	1867	599.6	0.6	0.3	600.2	599.9
Max. Calc.	75	8220	1501	NA	599.4	0.6	NA	600.0	NA
	500	11700	1631	2016	600.6	1.1	0.6	601.7	601.2

10-Year Velocity through Existing Bridge = 3.3 fps
10-Year Velocity through Proposed Bridge = 2.6 fps

DESIGN SCOUR ELEVATION TABLE

N. Abut.	Pier 1	Pier 2	S. Abut.
594.51	580.3	580.3	595.74

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

REVIS^D
October 19, 2010

GENERAL DATA
STRUCTURE NO. 053-0189

SHEET NO. 2 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	13
	SN 053-0189			CONTRACT NO. 66822	
FED. ROAD DIST. NO. _		ILLINOIS		FED. AID PROJECT	