

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	86-00075-00-AS	WOODFORD	74	36
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TOTAL BILL OF MATERIAL - BOX CULVERT

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu Yd	352
Porous Granular Embankment, Special	Cu Yd	345
Geotechnical Fabric for Ground Stabilization	Sq Yd	355
Stone Riprap, Class A4	Sq Yd	96
Filter Fabric	Sq Yd	96
Articulated Block Revetment Mat	Sq Yd	96
Removal Of Existing Structures No. 2	Each	1
Reinforcement Bars	Pound	52,690
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	233.0

GENERAL NOTES

- At least 10'-0" of this culvert barrel shall be poured monolithically with the wingwalls.
- Exposed edges shall be beveled 1/4".
- Optional use of Precast Concrete Box Culverts is not allowed.
- Reinforcement Bars shall conform to the requirements of ASTM A706, Grade 60 (IL Modified). See Special Provision.
- For backfilling and embankment, see Standard Specifications and Roadway Plans.
- It shall be the responsibility of the Contractor to divert the stream flow and any storm sewer flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with "Concrete Box Culverts".
- Contractor to field locate all utilities before starting construction and protect all utilities. Contractor to submit information regarding protecting utilities to the Engineer before starting construction.
- The pay item "Removal And Disposal Of Unsuitable Material" shall include the excavation of unsuitable material for a depth of 3'-1 1/2" (max.) below the structure for a width of approximately 45'-0" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer.
- The pay item "Porous Granular Embankment, Special" shall include the placement of CA-1 and CA-7 below the structure for a width of 45'-0" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer.
- F.F. denotes Front Face B.F. denotes Back Face E.F. denotes Each Face
- There will be no additional compensation should any reinforcement need to be cut or bent in the field.
- Construction Joints shall be bonded in accordance with Section 503.09 (b) of the Standard Specifications.
- The layout of the channel pavement may be varied in the field to suit ground conditions as directed by the Engineer.
- Minimum bar lap lengths are as follows, unless noted otherwise.

Barrels:	Bar Size	Min. Lap Length	Wingwalls:	Bar Size	Min. Lap Length
	#4	1'-4"		#4	1'-8"
	#5	1'-8"		#5	2'-2"
	#6	2'-0"		#6	2'-7"
	#7	2'-9"		#7	3'-5"
	#8	3'-8"		#8	4'-6"
	#9	4'-7"		#9	5'-9"
- Supplier of Articulated Block Revetment Mat to certify installation in accordance with manufacturer's recommendations.

STATION 273+80.00
 BUILT 200_ BY
 WOODFORD COUNTY
 F.A.S. RTE. 358
 SECTION 86-00075-00-AS
 LOADING HS20
 STR. NO. 102-5034

NAME PLATE
 See Standard 515001

BAR BENDING DIAGRAMS

Bar	a	b	Diagram
d	3'-6"	1'-9"	
d1	3'-0"	1'-9"	
v	6'-4"	10"	
v1	6'-10"	10"	

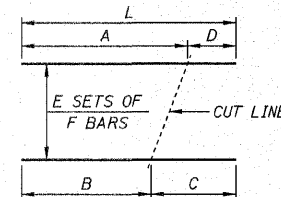
Bar	a	b	c	Diagram
a	40'-8"	8"	6"	
a2	13'-8"	11"	8"	
a8	12'-6"	11"	8"	
a10	40'-0"	8"	6"	

Bar	a	b	c	Diagram
s	1'-3 1/2"	9"	4 1/2"	

Bar	a	b	c	d	Diagram
h4	12'-7"	3'-0"	1'-7 3/8"	2'-6 3/8"	
h5	10'-2"	7'-4"	3'-11 3/8"	6'-2 1/4"	
h6	10'-6"	3'-6"	1'-10 1/2"	2'-11 1/2"	
h8	7'-11"	3'-0"	2'-6 3/8"	1'-7 3/8"	
h9	6'-7"	6'-10"	5'-9 3/8"	3'-8"	
h10	7'-3"	3'-0"	2'-6 3/8"	1'-7 3/8"	

Bar	a	b	c	d	e	f	Diagram
s1	11"	9"	4 1/2"	1'-3 1/2"	4 1/2"	4 1/2"	

BAR CUTTING DIAGRAM



BAR	A	B	C	D	E	F	L
a7	11'-9"	3'-3"	11'-9"	3'-3"	3	3	15'-0"
a8	11'-3"	1'-3"	11'-3"	1'-3"	3	5	12'-6"
a9	12'-6"	2'-6"	12'-6"	2'-6"	3	5	15'-0"
a10	38'-9"	1'-3"	38'-9"	1'-3"	1	22	40'-0"
a11	39'-7"	2'-1"	39'-7"	2'-1"	1	22	41'-8"
a12	20'-3"	2'-4"	20'-3"	2'-4"	1	11	22'-7"
a13	38'-9"	1'-3"	38'-9"	1'-3"	1	22	40'-0"
v2	10'-0"	7'-6"	10'-0"	7'-6"	2	8	17'-6"
v3	10'-0"	7'-6"	10'-0"	7'-6"	2	5	17'-6"

Note: "L" dimension does not take into account the hook length for the hooked bars a8 and a10.

BAR LIST

Bar	No.	Size	Length	Shape
a	63	#6	42'-0"	U
a1	62	#6	40'-8"	U
a2	168	#8	15'-6"	U
a3	165	#8	13'-8"	U
a4	63	#6	40'-8"	U
a5	72	#6	20'-6"	U
a6	96	#4	13'-8"	U
a7	9	#4	15'-0"	U
a8	15	#8	14'-4"	U
a9	15	#8	15'-0"	U
a10	22	#6	41'-4"	U
a11	22	#6	41'-8"	U
a12	11	#6	22'-7"	U
a13	22	#6	40'-0"	U
a14	6	#5	43'-10"	U
d	56	#4	5'-3"	L
d1	26	#4	4'-9"	L
h	168	#5	36'-2"	L
h1	252	#5	24'-8"	L
h2	60	#5	24'-8"	L
h3	8	#5	45'-0"	L
h4	12	#6	15'-7"	L
h5	6	#4	17'-6"	L
h6	10	#6	14'-0"	L
h7	14	#4	11'-5"	L
h8	12	#6	10'-11"	L
h9	6	#4	13'-5"	L
h10	10	#6	10'-3"	L
h11	14	#4	7'-5"	L
s	45	#4	4'-10"	L
s1	45	#4	4'-8"	L
v	154	#5	7'-2"	L
v1	142	#5	7'-8"	L
v2	16	#4	17'-6"	L
v3	10	#4	17'-6"	L

NOTE:

Work this sheet with Sheets C1 and C3-C7.

REVISIONS		NAME	DATE	BILL OF MATERIAL, GENERAL NOTES AND DETAILS
NO.	DESCRIPTION			

F.A.S. 358 (C.H. 1) OVER UNNAMED TRIBUTARY TO RICHLAND CREEK SECTION 86-00075-00-AS WOODFORD COUNTY STATION 273+80.00 STRUCTURE NO. 102-5034
 DESIGNED BY: BJR DRAWN BY: DJM
 DATE: 04/08/09 CHECKED BY: MSW/JML