DROP BOX NO. 1

SN 008–1096 – RT STA. 710 + 76 (IL RTE 40)
CULVERT @ 45° SKEW TO RDWY

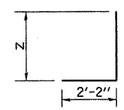
BILL OF MATERIALS
(FOR INFORMATION ONLY)

BAR	SIZE	NO.	LENGTH	SHAPE
a	#4	80	7'-1"	
f	#4	8	2'-8"	
h	#4	28	22'-8" **	
h_1	#4	3	2'-1"	
h_2	#4	3	3'-0"	
h_3	#4	3	3'-10"	
h_4	#4	3	4'-8"	
h_5	#4	3	5'-7"	
h_6	#4	3	6'-5"	
h_7	#4	8	7'-3"	
h_8	#4	4	2'-9"	
h_9	#6	4	7'-0"	
L	#4	26	4'-8"	
L_1	#4	2	5'-1"	
L_2	#4	2	5'-5"	
L_3	#4	2	5'-7"	
L_4	#4	2	5'-10"	
L_5	#4	2	6'-1"	
L_6	#4	2	6'-4"	
L_7	#4	2	6'-7"	
L_8	#4	2	6'-10"	
L_9	#4	2	7'-1"	
L_{10}	#4	4	7'-4"	
L_{11}	#4	2	7'-7"	
L_{12}	#4	2	7'-10"	
u	#6	6	15'-10"	
v	#4	9	10'-5"	

DESCRIPTION	UNIT	QTY
CLASS "SI" CONCRETE	CU YD	14.2
REINFORCEMENT BARS	LB	1,360

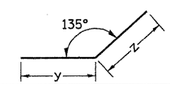
NOTE(**):
INCLUDES MINIMUM BAR LAP LENGTH

#4 L_z BARS
WINGWALLS



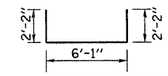
L_z	z	LENGTH
L	2'-6"	4'-8"
L_1	2'-11"	5'-1"
L_2	3'-3"	5'-5"
L_3	3'-5"	5'-7"
L_4	3'-8"	5'-10"
L_5	3'-11"	6'-1"
L_6	4'-2"	6'-4"
L_7	4'-5"	6'-7"
L_8	4'-8"	6'-10"
L_9	4'-11"	7'-1"
L_{10}	5'-2"	7'-4"
L_{11}	5'-5"	7'-7"
L_{12}	5'-8"	7'-10"

#4 h_{yz} BARS
TOP & BOTTOM SLABS

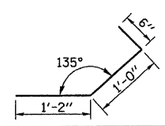


h_{yz}	y	z	LENGTH
h_1	1'-8"	5"	2'-1"
h_2	2'-1"	11"	3'-0"
h_3	2'-5"	1'-5"	3'-10"
h_4	2'-9"	1'-11"	4'-8"
h_5	3'-2"	2'-5"	5'-7"
h_6	3'-6"	2'-11"	6'-5"
h_7	3'-10"	3'-5"	7'-3"

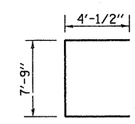
#4 v BAR
HEADWALL



#4 f BAR
COLLAR



#6 u BAR
COLLAR



GENERAL NOTES:

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER "EACH" FOR **DROP BOX NO. 1.** THIS WORK SHALL INCLUDE THE GALVANIZED PIPE, ANCHOR PLATES, & CAPS, CLASS SI CONCRETE, REINFORCEMENT BARS, BOLTS, NUTS, WASHERS, INSTALLATION ON THE PROPOSED CULVERT, PIPE GRATING, EARTH EXCAVATION AND DIVERTING WATER WHERE REQUIRED, AND ANY NECESSARY GRADING TO FIT THE DROP BOX, AS SHOWN IN THE CROSS SECTIONS OR TO SLOPE.

THE CLASS SI CONCRETE SHALL BE USED THROUGHOUT. EXPOSED EDGES SHALL BE BEVELED 3/4".

SLOPE FLOW LINE FOR DROP BOX NO. 1 IS THE SAME RATE AS THE FLOW LINE OF THE PIPE.

BOLTS, NUTS, AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATION AND SHALL BE GALVANIZED.

STEEL PIPES SHALL CONFORM TO A.S.T.M. A-53 (TYPE E OR S) GRADE B, SCHEDULE 40, AND SHALL BE GALVANIZED CONFORMING TO A.S.T.M. A-120. CONTRACTOR SHALL FIELD VERIFY PIPE LENGTH.

STEEL PLATES SHALL CONFORM TO AASHTO M-183 AND SHALL BE GALVANIZED CONFORMING TO AASHTO M-111.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 GR. 60 (IL MODIFIED).

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIVERTING THE WATER FLOW FROM THE CONSTRUCTION AREA USING A METHOD MEETING THE APPROVAL OF THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 503 OF THE STANDARD SPECIFICATION. COST INCLUDED WITH "DROP BOX NO. 1."

SEE PLAN AND PROFILE SHEET FOR MORE INFORMATION.

SEE CROSS SECTION SHEET FOR MORE INFORMATION INCLUDING INVERT ELEVATIONS.

BILL OF MATERIALS
(FOR INFORMATION ONLY)

DESCRIPTION	UNIT	QTY.
3 1/2" GALVANIZED STEEL PIPE	FOOT	2 @ 15'-1 1/2"
	FOOT	2 @ 6'-9"
	FOOT	4 @ 7'-8"
3 1/2" GALV PIPE CAPS	EACH	16
1/4" GALV. STEEL PLATE (9" NOMINAL)	EACH	10
1/2" x 4" x 14" GALV. STEEL PLATE	EACH	10
5/8" x 10" GALV. STEEL BOLTS	EACH	8
EXPANSION BOLTS 1/2"Ø	EACH	20