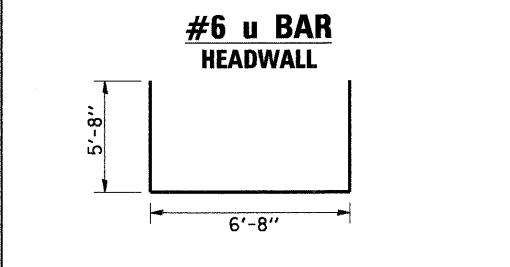
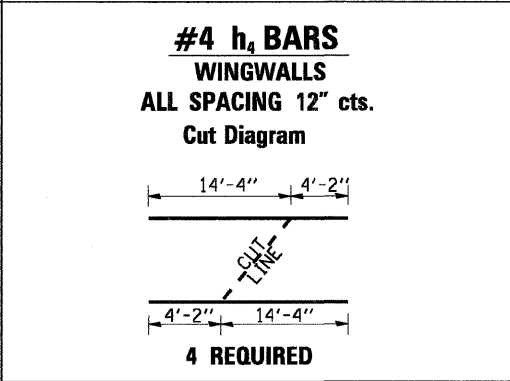
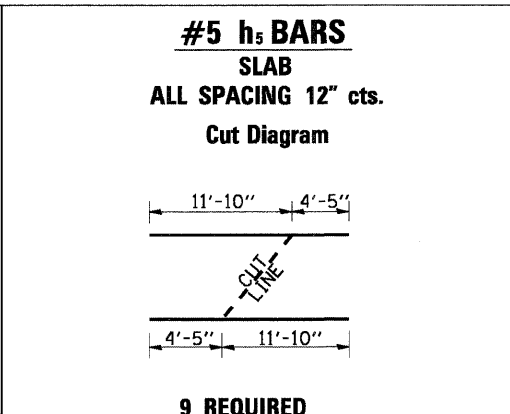
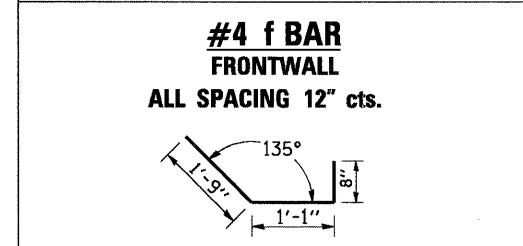
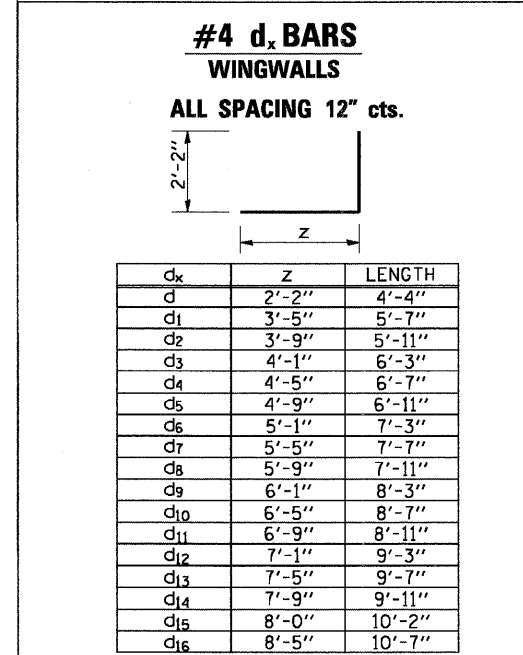
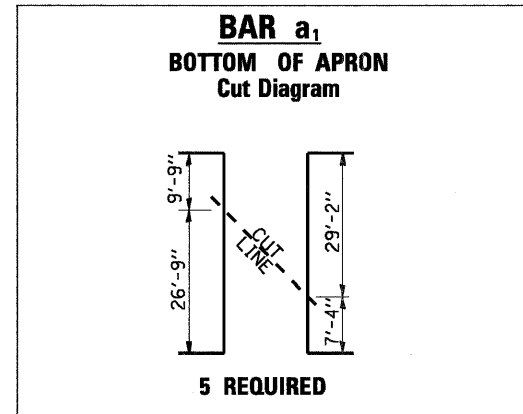


CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 72"

SN 043-1064 - LT STA 278+24.12 (IL RTE 78)

BILL OF MATERIALS (LEFT END SECTION)
(FOR INFORMATION ONLY)

BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
a	3	# 5	30'-1"	12" cts.	—
a ₁	5	# 5	36'-6"	12" cts.	⌊
d	30	# 4	4'-4"	12" cts.	┘
d ₁	2	# 4	5'-7"	12" cts.	┘
d ₂	2	# 4	5'-11"	12" cts.	┘
d ₃	2	# 4	6'-3"	12" cts.	┘
d ₄	2	# 4	6'-7"	12" cts.	┘
d ₅	2	# 4	6'-11"	12" cts.	┘
d ₆	2	# 4	7'-3"	12" cts.	┘
d ₇	2	# 4	7'-7"	12" cts.	┘
d ₈	2	# 4	7'-11"	12" cts.	┘
d ₉	2	# 4	8'-3"	12" cts.	┘
d ₁₀	2	# 4	8'-7"	12" cts.	┘
d ₁₁	2	# 4	8'-11"	12" cts.	┘
d ₁₂	2	# 4	9'-3"	12" cts.	┘
d ₁₃	2	# 4	9'-7"	12" cts.	┘
d ₁₄	2	# 4	9'-11"	12" cts.	┘
d ₁₅	2	# 4	10'-2"	12" cts.	┘
d ₁₆	2	# 4	10'-7"	12" cts.	┘
f	7	# 4	3'-6"	12" cts.	┘
h	2	# 4	18'-3"	----	—
h ₁	8	# 5	11'-10"	12" cts.	—
h ₂	4	# 4	3'-0"	----	—
h ₃	3	# 4	6'-6"	12" cts.	—
h ₄	4	# 4	18'-6"	12" cts.	—
h ₅	9	# 5	16'-3"	12" cts.	—
h ₆	8	# 4	16'-3"	12" cts.	—
u	4	# 6	18'-0"	----	⌊
DESCRIPTION			UNIT	QTY	
CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS			CU YD	13.2	
REINFORCEMENT BARS			POUND	1105	
2 1/2" GALV. STEEL PIPE			FOOT	2 @ 7'-1"	
2 1/2" GALV PIPE CAPS			EACH	4 @ 4"	
L 6"x6"x3/8" GALV. STEEL ANGLE			EACH	4	
3/8"x4"x16" GALV. STEEL PLATE			EACH	4	
5/8" x 9" GALV. STEEL BOLTS			EACH	8	



MINIMUM BAR LAP
LOCATION: END SECTION

SIZE	LAP	WT, LB/FT
# 4	1' - 4"	0.668
# 5	1' - 8"	1.043
# 6	2' - 0"	1.502

GENERAL NOTES:

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER "EACH" FOR **CAST-IN-PLACE RC END SECTIONS 72"**. THIS WORK SHALL INCLUDE THE GALVANIZED PIPE, STEEL PLATES, STEEL ANGLES, & CAPS, CLASS SI CONCRETE, REINFORCEMENT BARS, BOLTS, NUTS, WASHERS, PIPE GRATING, INSTALLATION ON THE PROPOSED CULVERT, EARTH EXCAVATION AND DIVERTING WATER WHERE REQUIRED, AND ANY NECESSARY GRADING TO FIT THE END SECTION, AS SHOWN IN THE CROSS SECTIONS OR TO SLOPE.

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

SLOPE FLOW LINE FOR END SECTION IS THE SAME RATE AS THE FLOW LINE OF THE BOX CULVERT.

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

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

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

SEE PLAN AND PROFILE SHEET FOR MORE INFORMATION.

SEE CROSS SECTION SHEET FOR MORE INFORMATION AND INVERT ELEVATIONS.

THE RIGHT END SECTION FOR STA. 278+24.12 SHALL CONFORM TO IDOT HIGHWAY STANDARD 542111-02. SEE ROADWAY PLAN FOR ADDITIONAL INFORMATION.