



HANSON PROFESSIONAL SERVICES INC.
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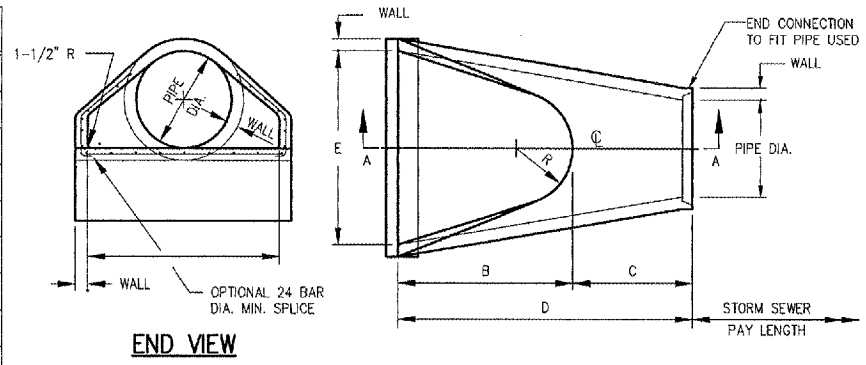


JOLIET REGIONAL PORT DISTRICT
 1 Hangar Road
 Romeoville, Illinois 60446
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EXTEND TAXIWAY E; CONSTRUCT
 GA APRON, AVGAS FUELING APRON
 AND AUTO PARK 100

AIP PROJECT NO. 3-17-0140-B38
 IDA PROJECT NO. LOT-3441

PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	1'-0"	4'-6 1/2"	1'-7 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 1/4"	8'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	22"	3:1
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	24"	2.4:1

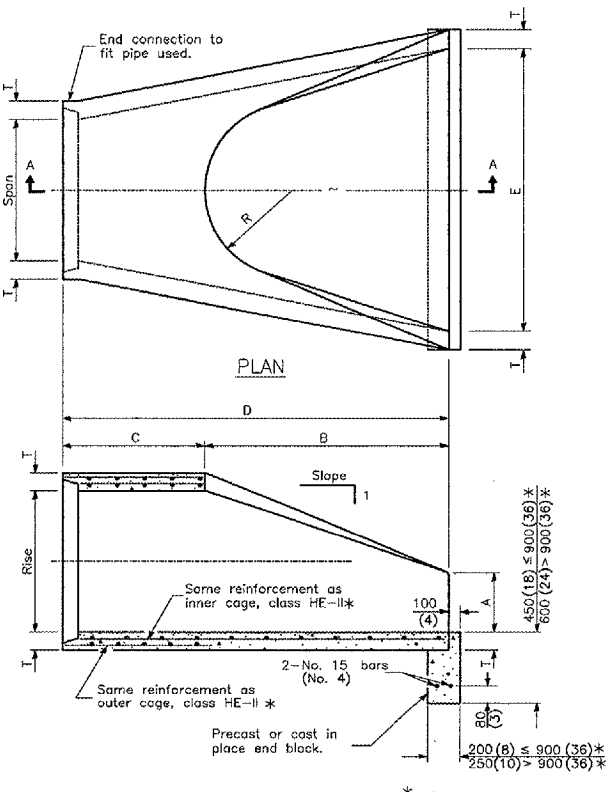


DIA. INCHES	V-BAR SIZE	H-BAR SIZE	No. OF H-BARS REQ'D.	BOLT DIA.	
				INCHES	"A" DIM.
12	1/2#	5/8#	3	1/2	4
15	1/2#	5/8#	3	1/2	4 1/2
18	1/2#	5/8#	4	1/2	4 1/2
21	1/2#	5/8#	4	1/2	5
24	5/8#	3/4#	4	1/2	5
27	5/8#	3/4#	4	1/2	5 1/2
30	5/8#	3/4#	4	1/2	5 1/2
36	3/4#	1#	4	3/4	8
42	3/4#	1#	4	3/4	8
48	3/4#	1#	5	3/4	8
54	3/4#	1-1/2 PIPE	5	3/4	8
24 X 38 ELLIPTICAL	3/4#	1#	5	3/4	8

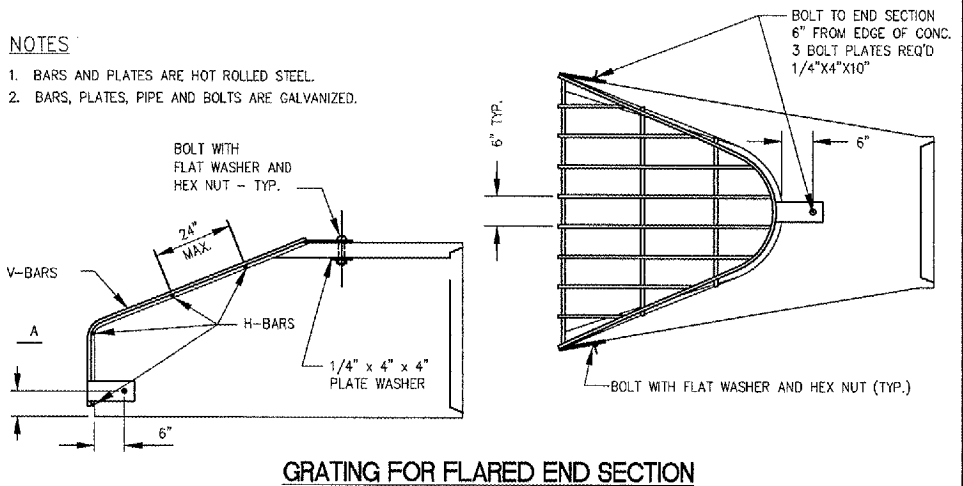
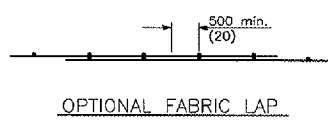
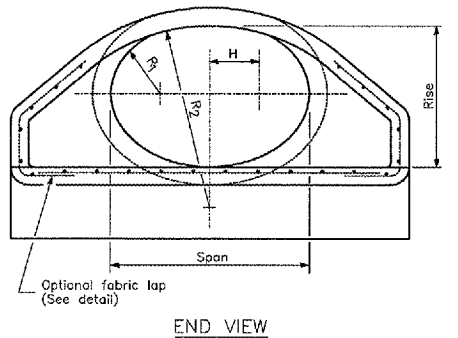
- NOTES
- GRATING SHALL BE PAID FOR UNDER ITEM AR752518.
 - THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 502.10 OF IDOT SPECIFICATIONS, WITH COST INCIDENTAL TO FLARED END SECTION.
 - PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.

* 8" - 36" DIA. PIPE OR LESS
 10" - GREATER THAN 36" DIA. PIPE
 ** 18" - 36" DIA. PIPE OR LESS
 24" - GREATER THAN 36" DIA. PIPE
 2 - NO. 4 BARS

PRECAST CONCRETE FLARED END SECTION
 (IDOT STANDARD 542301)



SPAN	RISE	EQUIV. DIA.	WALL T	A	B	C	D	E	H	R	R ₁	R ₂	APPROX. SLOPE
985 (38)	610 (24)	750 (30)	95 (3 3/4)	241 (9 1/2)	1,372 m (4'-6")	457 (18)	1,829 m (6'-0")	1,524 m (5'-0")	219 (8 5/8)	229 (9)	260 (10 1/4)	832 (32 3/4)	1:2.9



GRATING FOR FLARED END SECTION

GENERAL NOTES
 All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in millimeters (inches) unless otherwise shown.
 PRECAST CONCRETE ELLIPTICAL FLARED END SECTION
 (IDOT STANDARD 542306)

DETAILS SHOWN ARE NOT TO SCALE

No.	Drawing Issue Description	Date	By

Date
 MARCH 25, 2005
 Sheet Title

DRAINAGE DETAILS

840-04D8041
 Project Number
 LDH 02/23/05
 Layout By Date
 LDH/TMM 02/23/05
 Designed By Date
 RMH 03/15/05
 Reviewed By Date
 LDH | TMM | ---
 Drawn By Sheet No.

I:\04-035\03940\0403041\DRAWINGS\SHEETS\19-DRAINAGE\DETAILS.DWG MAR 28, 2005 12:13PM TMM