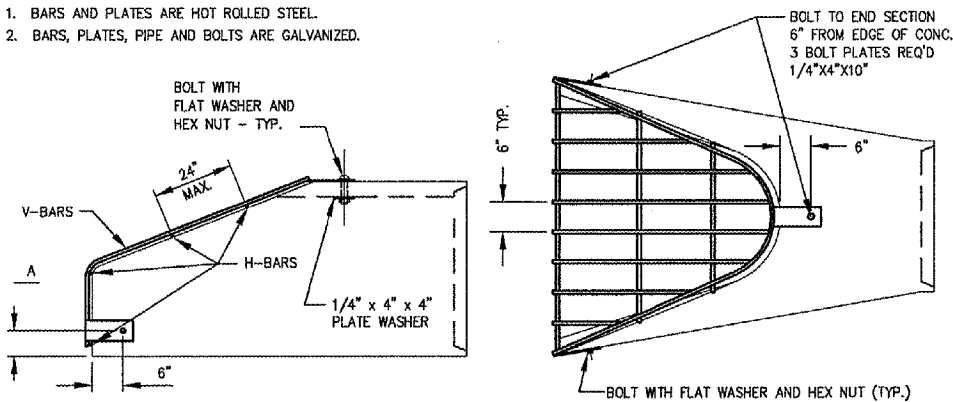




DIA. INCHES	V-BAR SIZE	H-BAR SIZE	No. OF H-BARS REQ'D.	BOLT DIA.	"A" DIM.
	INCHES			INCHES	
12	1/2#	5/8#	3	1/2	4
15	1/2#	5/8#	3	1/2	4 1/2
18	1/2#	5/8#	4	1/2	4 1/2
21	1/2#	5/8#	4	1/2	5
24	5/8#	3/4#	4	1/2	5
27	5/8#	3/4#	4	1/2	5 1/2
30	5/8#	3/4#	4	1/2	5 1/2
36	3/4#	1#	4	3/4	8
42	3/4#	1#	4	3/4	8
48	3/4#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

NOTES

1. BARS AND PLATES ARE HOT ROLLED STEEL.
2. BARS, PLATES, PIPE AND BOLTS ARE GALVANIZED.

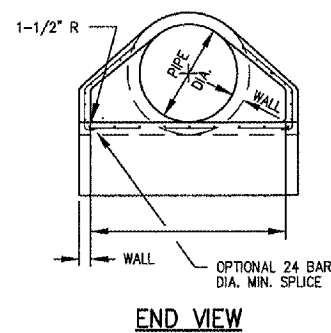


GRATING FOR FLARED END SECTION

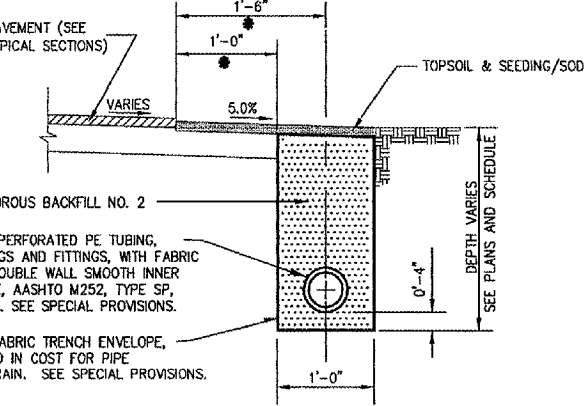
PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"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

NOTES

1. GRATING SHALL BE PAID FOR UNDER ITEM AR752518.
2. 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.
3. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.

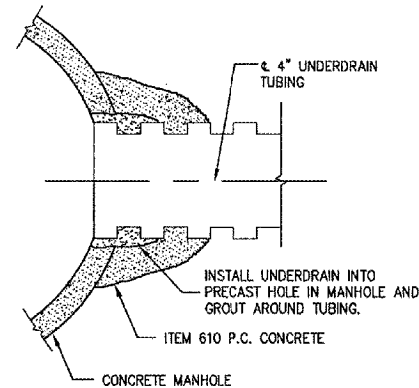


END VIEW



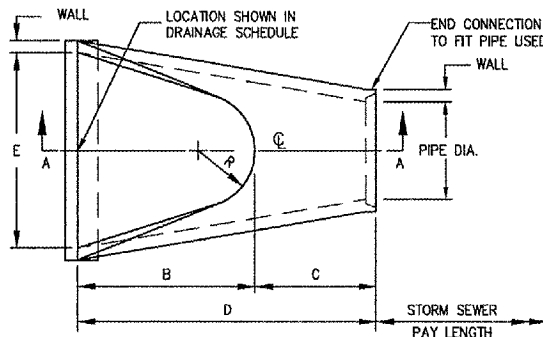
UNDERDRAIN ALONG PAVEMENT EDGE

ADJUST DISTANCES AS DIRECTED BY THE RESIDENT ENGINEER TO MEET EDGE OF EXISTING AGGREGATE BASE.



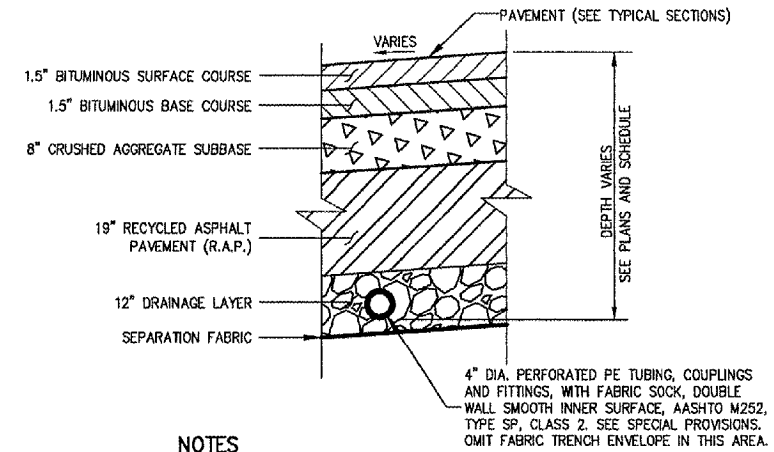
NOTE
HOLE FOR UNDERDRAIN TO BE PRECAST INTO MANHOLES AT PROPER INVERT.

STORM SEWER CONCRETE COLLAR AND GROUT CONNECTION



SECTION A-A

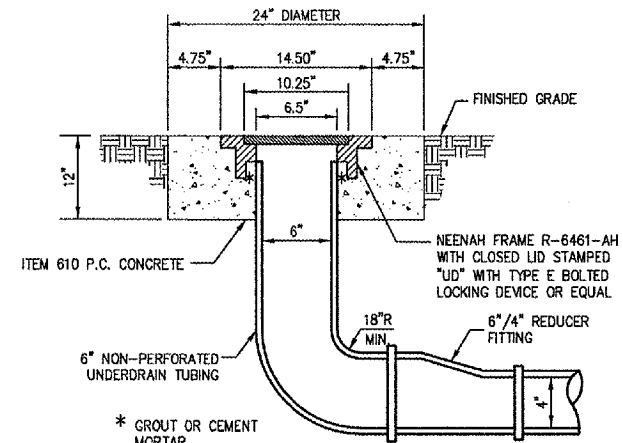
PRECAST CONCRETE FLARED END SECTION
(IDOT STANDARD 542301)



NOTES

1. UNDERDRAIN TO BE INSTALLED WITHIN THE 12" DRAINAGE LAYER IN ACCORDANCE WITH THE SCHEDULE.
2. ANY SEPARATION FABRIC DAMAGED DURING THE INSTALLATION OF THE UNDERDRAIN TO BE EXCAVATED AND REPLACED.

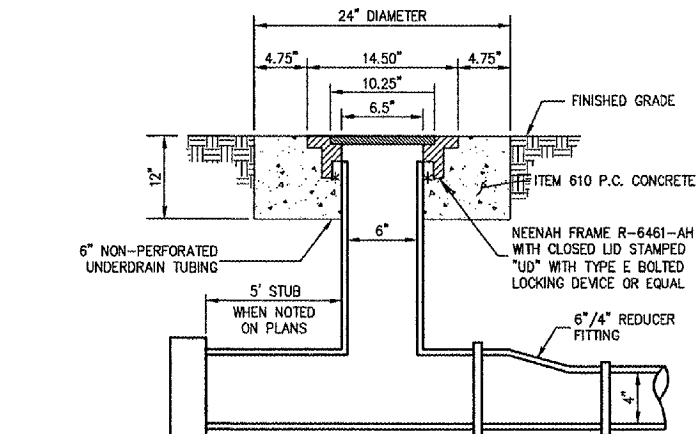
UNDERDRAIN UNDER PAVEMENT



NOTE

FRAME AND LID, CONCRETE, 6" NON-PERFORATED TUBING, REDUCER FITTINGS AND ELBOW FITTINGS ARE INCIDENTAL TO CLEANOUT.

UNDERDRAIN CLEANOUT



NOTE

FRAME AND LID, CONCRETE, 6" NON-PERFORATED TUBING, REDUCER FITTINGS, ELBOW FITTINGS AND CAPS ARE INCIDENTAL TO INSPECTION HOLE.

UNDERDRAIN INSPECTION HOLE

No.	Drawing Issue Description	Date	By

Date
12 MARCH 2004
Sheet Title

UTILITY DETAILS

84303B8004/C8005	Project Number
KLK	01/05/04
	Layout By Date
TMM	01/09/04
	Designed By Date
RMH	03/05/04
	Reviewed By Date
KLK	
	Drawn By