

	B/D	A/F		E												
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	
18"	22 1/8"	19 1/4"	7/8"	16 3/4"	1 3/4"	1/2"	1/2"	1"	5/8"	1/2"	1 1/2"	1 7/16"	1 1/4"	1 1/4"		



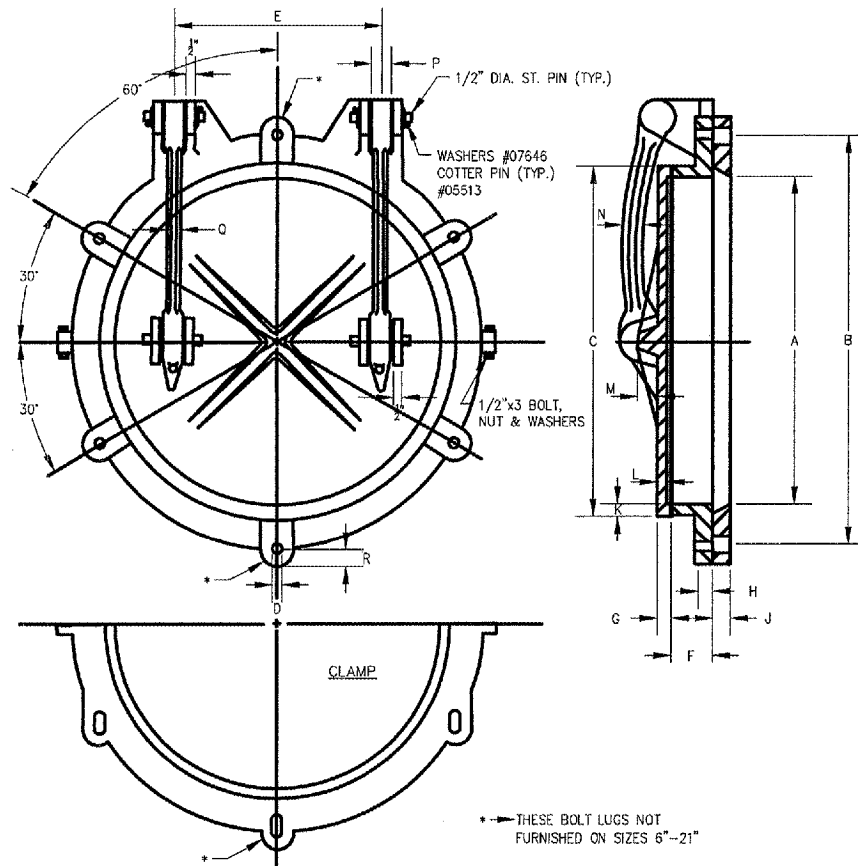
HANSON PROFESSIONAL SERVICES INC.
 815 Commerce Drive, Suite 200
 Oak Brook, Illinois 60523
 Telephone: 630.990.3800
 Fax: 630.990.3801



JOLIET REGIONAL PORT DISTRICT
 1 Hangar Road
 Romeoville, Illinois 60446
 Telephone: 815.838.9497
 Fax: 815.838.9524

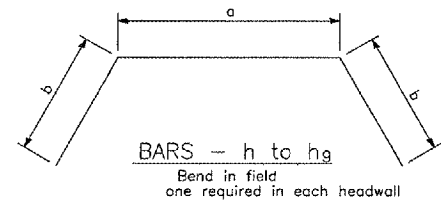
SOUTHWEST CORPORATE AREA,
 GRADING AND DRAINAGE, PHASE 1

AIP PROJECT NO. 3-17-0140-B39
 IDA PROJECT NO. LOT-3498

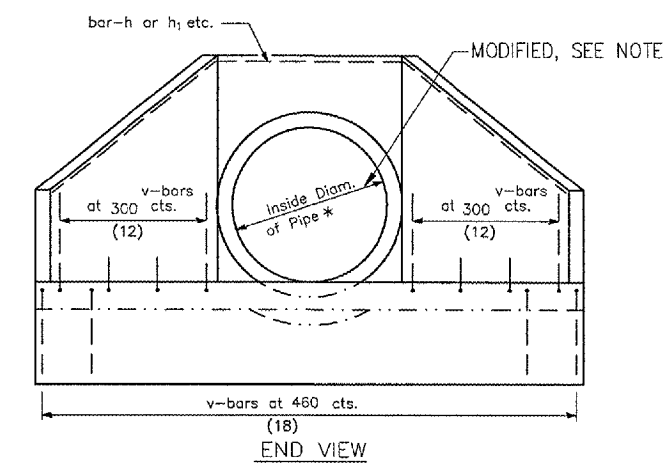
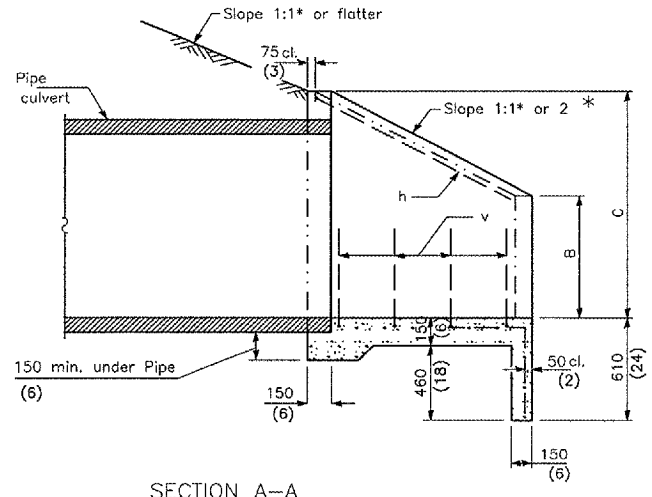
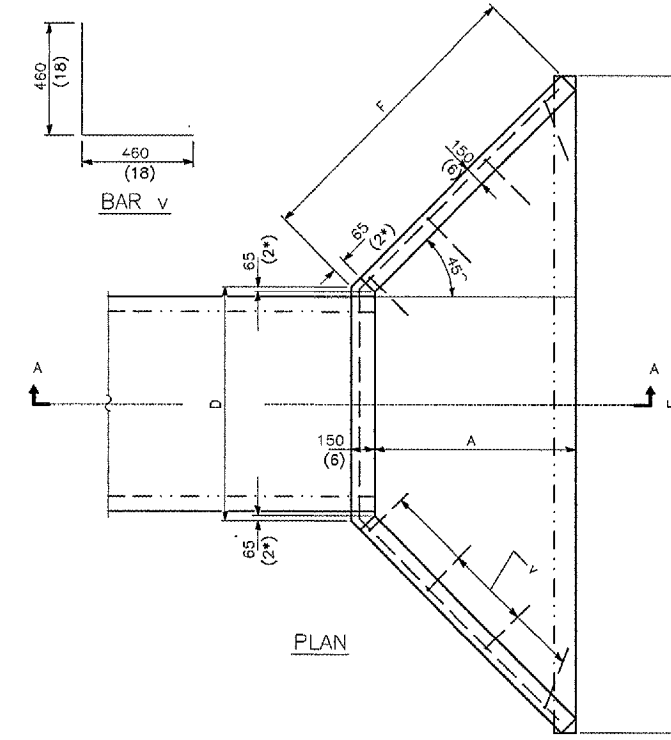


- NOTES**
- MATERIAL:**
 FRAME, LID, CLAMPS - GRAY IRON, CLASS 35B ASTM A48
 ARMS - DUCTILE IRON, GRADE 65-45-12, ASTM A536
 - FURNISH WITH:**
 NEOPRENE SEAT MOUNTING AND BRONZE BUSHED HINGES WITH GREASE FITTINGS.
 - AUTOMATIC DRAINAGE GATE TO BE ITEM R-5050-SF18 AS PRODUCED BY NEENAH, OR APPROVED EQUAL.

**AUTOMATIC DRAINAGE GATE
 (TYPE SF)**



* If embankment slope above headwall is flatter than 1:2, provide wings for 1:2 slope.



SECTION A-A

END VIEW

TABLE OF DIMENSIONS

DESIGN NO.	NOMINAL INSIDE DIAM. of PIPE	SLOPE of FILL	Dimensions						Concrete 2 End Secs. m ³ (cu. yds.)	Reinforcement Bars - No. 15 (No. 4)		
			A	B	C	D	E	F		h-Bars	v-Bars	Total Wt. 2 End Secs. kg (lbs.)
D600-2 (D24-2)	450 (18)*	1:2	865 (34)	410 (16)	840 (33)	890 (35)	2.72 m (8'-10 1/2")	1.29 m (4'-2 1/2")	1.5 (2.0)	h ₅ 3.24 m (11'-0")	28	50 70

*SEE NOTE 1.

NOTE
 1. END SECTION TO BE MODIFIED TO BE COMPATIBLE WITH AN 18" DIAMETER PIPE AND AUTOMATIC DRAINAGE GATE, SEE DETAIL.

**REINFORCED CONCRETE END SECTION
 (DOT STANDARD 542101 - MODIFIED FOR PIPE SIZE)**

Mark	a	b
h	560 (22)	750 (29 1/2)
h ₁	560 (22)	980 (38 1/2)
h ₂	640 (25)	750 (29 1/2)
h ₃	640 (25)	980 (38 1/2)
h ₄	840 (33)	990 (39)
h ₅	840 (33)	1.26 m (4'-1 1/2")
h ₆	990 (39)	1.18 m (3'-10 1/2")
h ₇	990 (39)	1.50 m (4'-10 1/2")
h ₈	1.19 m (3'-11")	1.42 m (4'-8")
h ₉	1.19 m (3'-11")	1.77 m (5'-9 1/2")

DETAILS SHOWN ARE NOT TO SCALE

No.	Drawing Issue Description	Date	By

Date
 MAY 6, 2005
 Sheet Title

DRAINAGE DETAILS

840-04D8042
 Project Number
 SJM 04/07/05
 Layout By Date
 SJM 04/07/05
 Designed By Date
 RMH/TMM 04/22/05
 Reviewed By Date
 SJM
 Drawn By Date
 Sheet No.

A:\04\05\100840\0408042\DRAININGS\DRAININGS\SHEETS\J3 - DRAINAGE DETAILS-2.DWG, MAY 13, 2005 1:49PM TMM