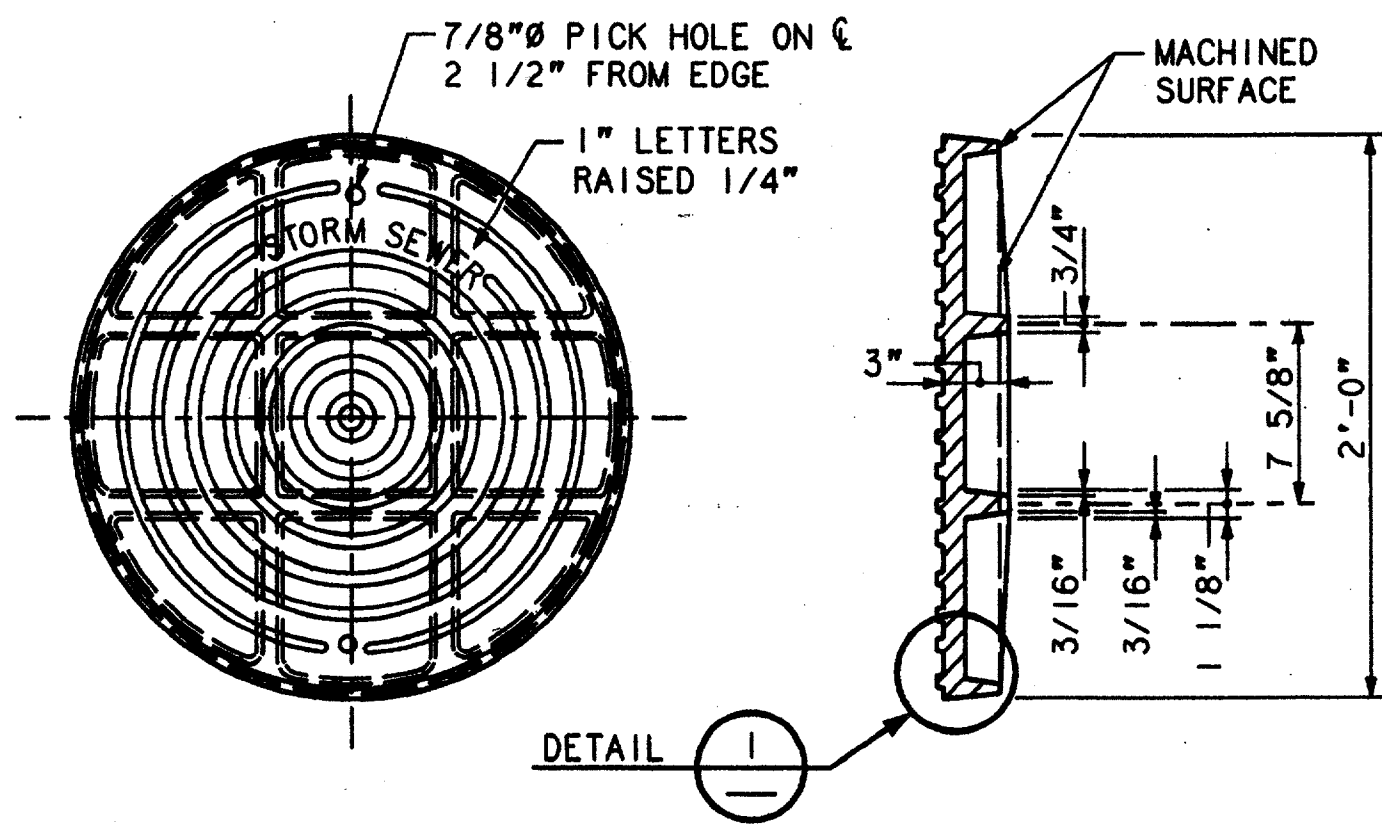
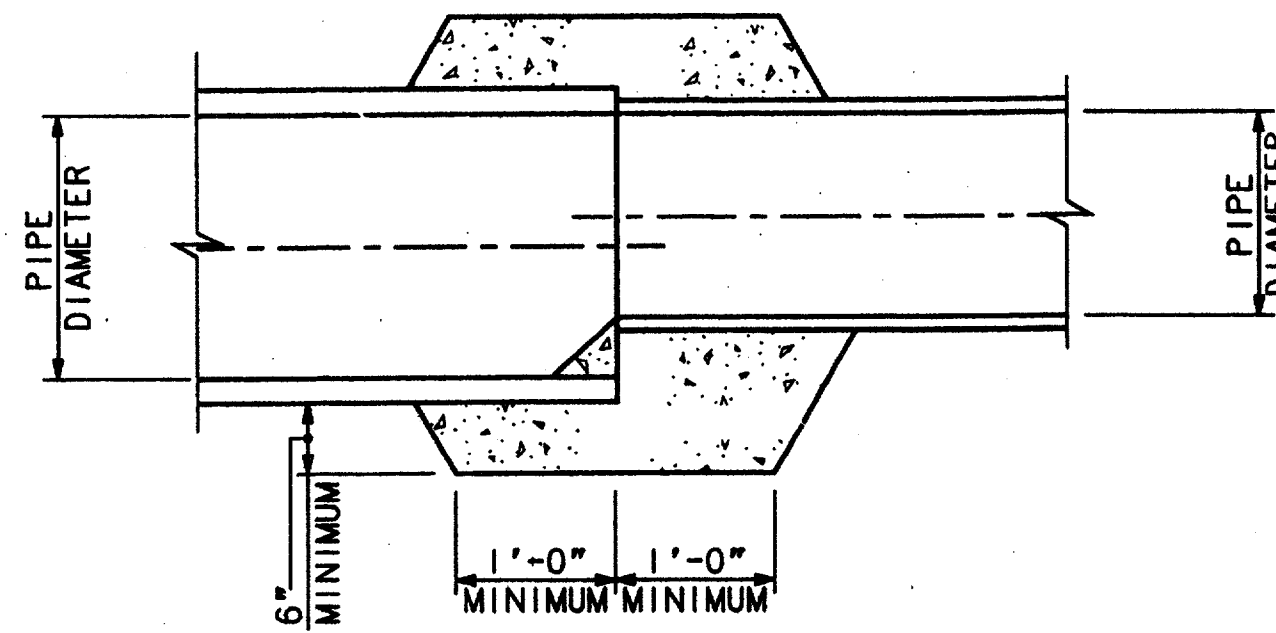


HALF PLAN AND SECTION OF FRAME

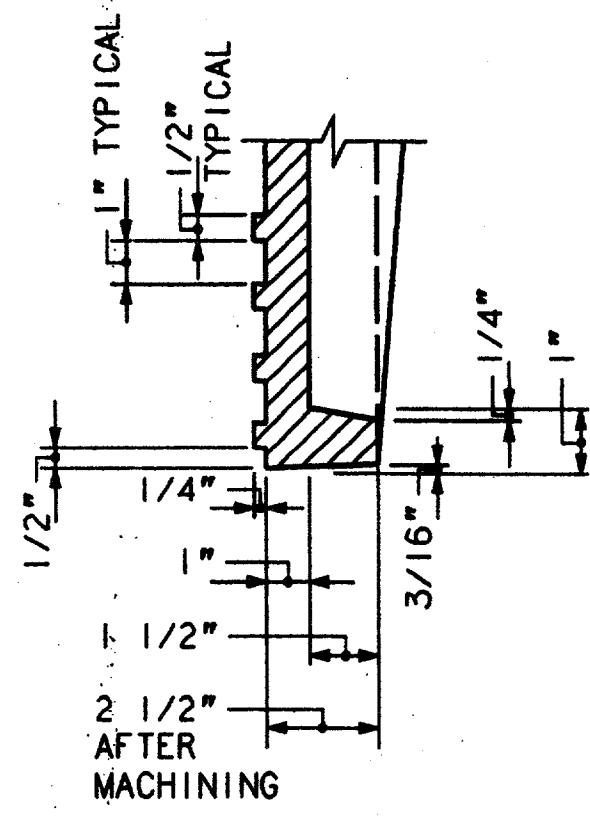


COVER COVER SECTION

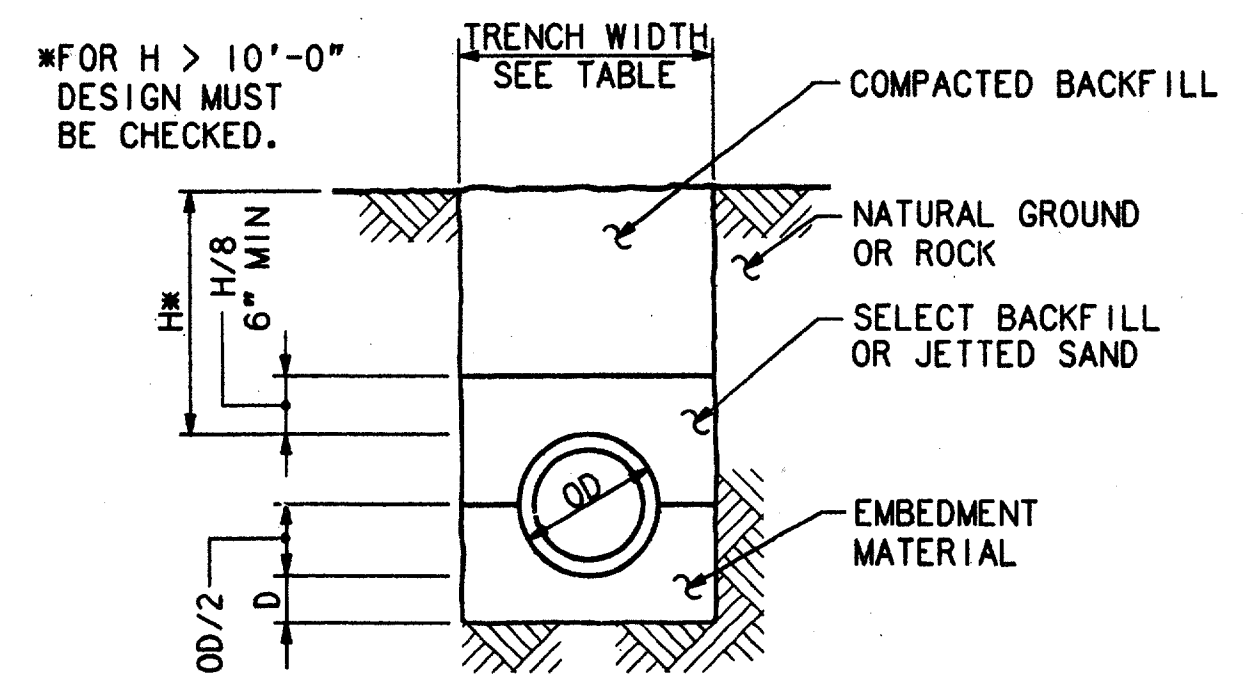


CONCRETE COLLAR FOR PIPE CONNECTION

- NOTES:**
1. STORM SEWER PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED ON PLANS.
  2. UNLIMITED TRENCH WIDTH NOT PERMITTED FOR CLASS III PIPE; A HIGHER TYPE EMBEDMENT MAY BE REQUIRED.



DETAIL 1



\*FOR H > 10'-0" DESIGN MUST BE CHECKED.

TRENCH WIDTH SEE TABLE

COMPACTED BACKFILL

NATURAL GROUND OR ROCK

SELECT BACKFILL OR JETTED SAND

EMBEDMENT MATERIAL

D = DEPTH OF BEDDING MATERIAL BELOW PIPE

H = BACKFILL COVER ABOVE TOP OF PIPE

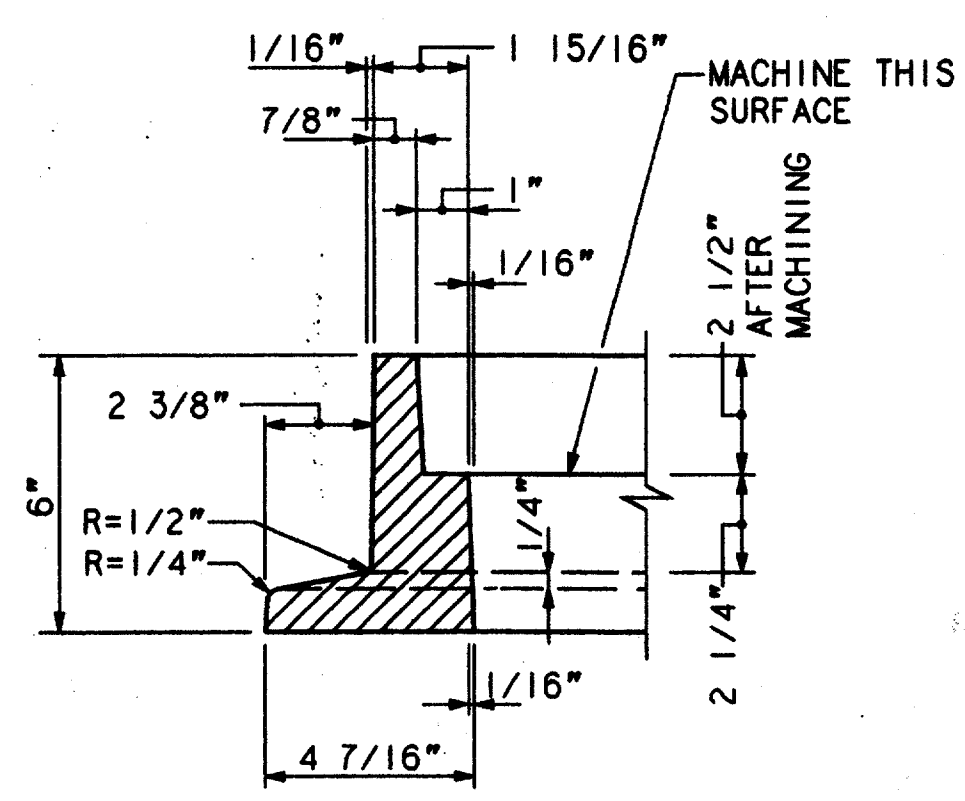
CLASS III PIPE	
PIPE DIAMETER (INCHES)	TRENCH WIDTH (FEET)
15	3.0
18	3.4
21	3.8
24	4.1
27	4.5
30	4.9
33	5.2
36	5.6
42	6.3
48	7.0
54	7.8
60	8.5
66	9.2
72	10.0
78	10.7
84	11.4
90	12.1
96	12.9

TRENCH WIDTHS BASED ON 1.25(OD) + 1'-0".

TRENCH WIDTHS SHOWN ARE MINIMUM FOR PROPER PLACEMENT AND COMPACTION OF EMBEDMENT AND BACKFILL.

TRENCH WIDTHS SHOWN WILL BE USED FOR CALCULATION OF ROCK EXCAVATION WHEN DESIGNATED AS A PAY ITEM.

DEPTH OF BEDDING CLASS III PIPE	
DIA (INSIDE DIAMETER)	D (MIN)
27" OR SMALLER	3"
30" TO 60"	4"
66" AND LARGER	6"



DETAIL 2

REINFORCED CONCRETE PIPE INSTALLATION

Checked by: [Signature]

Designed by: [Signature]

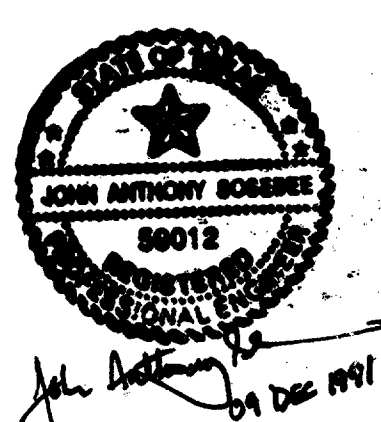
Drawn by: [Signature]

DATE: 06 DEC 91

**CONFORMED**

CONTRACT SHEET No. 20 of 95

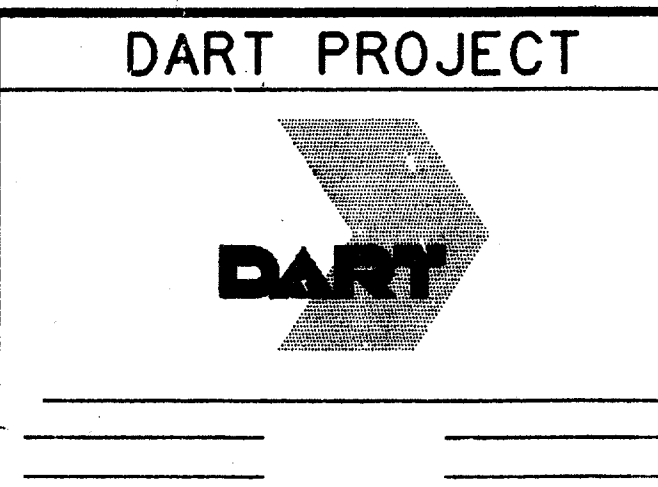
REV	DATE	DESCRIPTION	BY	DES	CHK	APP	REV	DATE	DESCRIPTION	BY	DES	CHK	APP



**HUITT-ZOLLARS**

3131 MCKINNEY AVENUE/SUITE 600  
DALLAS, TEXAS 75244-8711-3311

Sverdrup Corporation  
Barton-Aschman Associates, Inc.  
Arredondo, Brunz & Associates, Inc.  
LS Transil Systems  
Hellmuth Obata & Kassabaum, Inc.



SCALE: NO SCALE

DRW: W.C. HALL

DESIGNED: E.A. RAINOSEK

CHECKED: R. GRICE

IN CHARGE: D. KELLY

DATE: 06 DEC 91

**CIVIL STANDARD**

**MANHOLE COVER DETAILS, STORM SEWER PIPE EMBEDMENT AND CONNECTION DETAILS**

CONTRACT C-97000136

DWG No. CS6-0054

REV 0