

**NOTES FOR DESIGNER:**

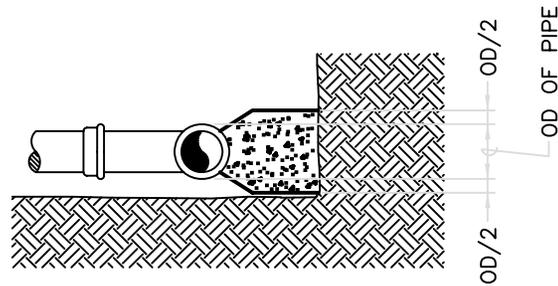
(DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE LEM CIVIL POC.
2. SIZE OF CONCRETE DETERMINED BY SIZE OF PIPE. CONCRETE SHALL COVER AREA OF PIPE AS SHOWN AND SHALL REST AGAINST UNDISTURBED BANK OF TRENCH.
3. BEARING AREAS ARE FOR UNDISTURBED MATERIAL. INCREASE BEARING AREA FOR COMPACTED FILL MATERIAL BY A FACTOR OF 1.5.
4. CONCRETE  $f'_c=2500$  PSI @ 28 DAYS
5. TABLE BASED ON NFPA 24, 8.6, 225 PSI PRESSURE AND 2000 PSF SOIL BEARING.
6. SAND BEDDING NOT SHOWN FOR CLARITY.

**PLAN**

SCALE: NONE

MIN. THRUST BLOCK AREA (SQUARE FEET)			
PIPE DIA.	PLUG TEE	90° BEND	45° BEND
4"	2	2	2
6"	4	5	3
8"	6	8	5
10"	9	13	7
12"	13	18	10
14"	18	25	14
16"	23	32	18



**SECTION**

SCALE: NONE



**THRUST BLOCK DETAIL**

SCALE: NONE

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).

1	8-23-02	U		GENERAL REVISION AND DWG. NO. WAS STABLED.	RP	EH	MS	EH	TO
NO	DATE	CLASS	REV	DESCRIPTION	OWN	DSGN	CHKD	SUB	APP

**ENGINEERING STANDARDS PROGRAM**

**ENGINEERING STANDARDS MANUAL**

THRUST BLOCK DETAIL

BLDG X  
SUBMITTED TA-X  
DISCIPLINE POC: E. HOTH  
STANDARDS MANAGER: TOBIN ORUCH

APPROVED FOR RELEASE  
DATE: 6-28-99

Los Alamos NATIONAL LABORATORY  
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CLASSIFICATION: U  
PROJECT ID: CHAPTER 3  
REVIEWER: LARRY BAYS  
DRAWING NO: ST-G30GEN-2

DESIGN: R.PEARSON  
DESIGN: E.HOTH  
CHECKED: M.SMITHOUR  
DATE: 6-28-99  
SHEET 1 OF 1  
REV 1

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