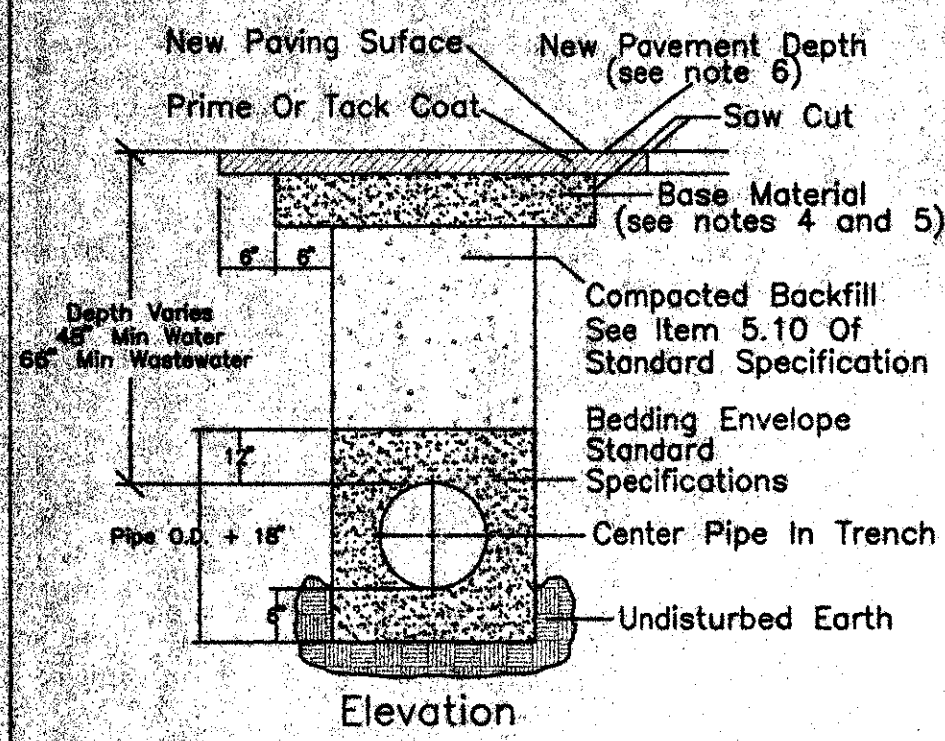


Typical Trench With Paved Surface

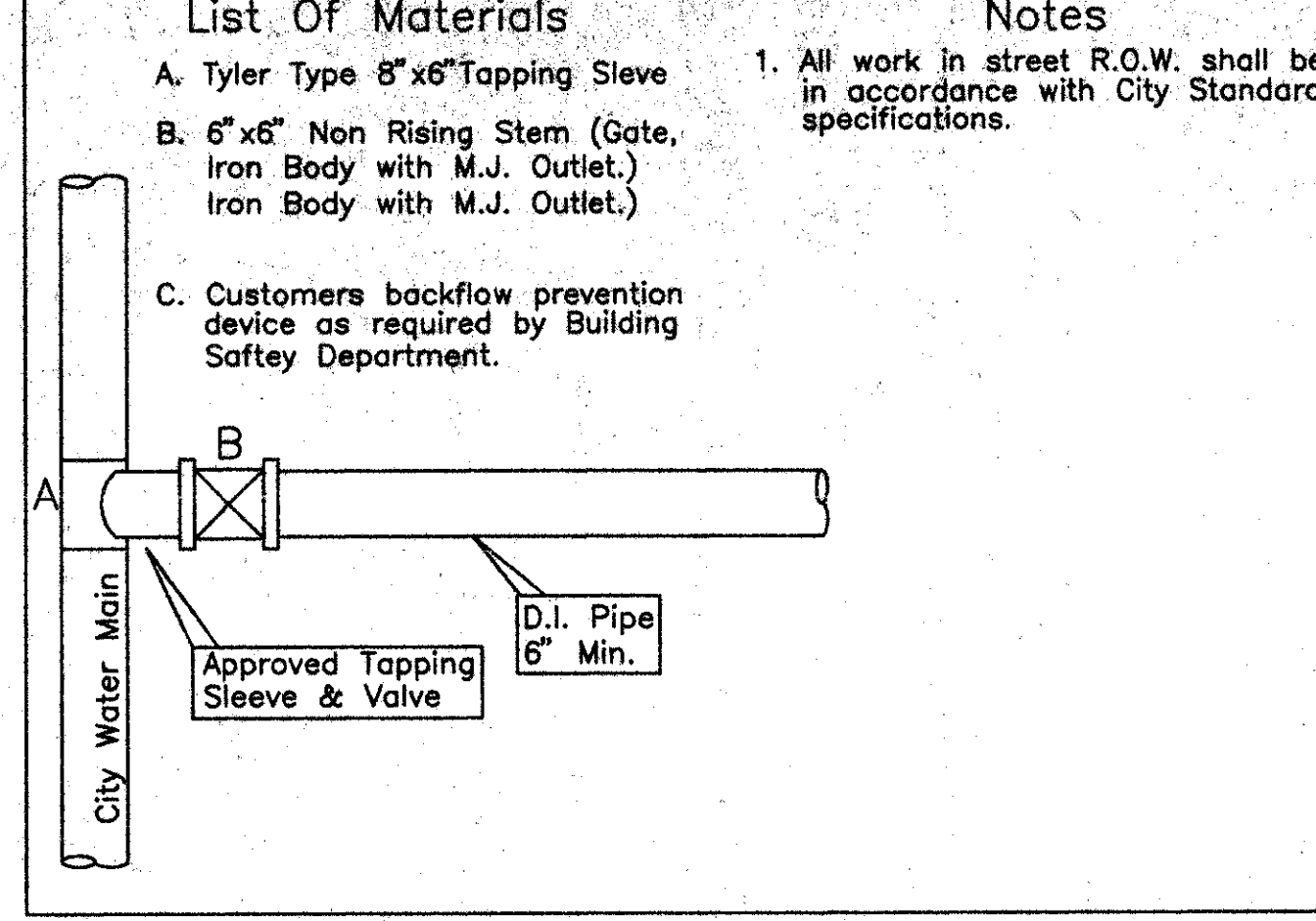


Notes:

- The existing paving surface shall be saw cut in a straight line, a minimum of 12" wider than the undisturbed sides of the trench, symmetrical about the center line of the excavation.
- Any concrete paving shall be saw cut 6" wider than undisturbed sides of excavation.
- If excavation area is open for temporary public use, the surface shall be maintained level with adjacent riding surface with cold mix or temporary hot mix.
- Road base and surface materials in the trench cut shall be replaced in kind of equal thickness or with minimum base thickness of 10 inches, whichever is greater.
- All damaged areas of pavement outside the trench cut shall be removed and replaced with a minimum of 8 inches of base or match existing, whichever is greater.
- Surface pavement shall be of the kind and thickness as existing, or minimum 2", whichever is greater.

- City Of Addison Utility - Special Construction Notes**
- The city standard construction specifications current at the time of bidding shall govern material and methods used to do this work.
 - At least 48 hours before beginning any water and wastewater construction in public R.O.W. or public easement, the contractor shall notify Transportation and Public Services Inspection Division for main line construction, or water and wastewater utility taps inspection for taps only construction.
 - The contractor shall contact the Austin area "one call" system at 472-2822 for existing utility locations prior to any excavation. In advance of construction, the contractor shall verify the locations of all utilities to be extended, tied to, or altered, or subject to damage/inconvenience by the construction operations. The City of Austin Water and Wastewater Maintenance responsibility ends at R.O.W. easement lines.
 - No other utility service/appurtenances shall be placed near the property line, or other assigned location designated for water and wastewater utility service that would interfere with the water and wastewater services.
 - Pressure taps shall be in accordance with city standard specification. The contractor shall do all excavation etc. and shall furnish, install and air test the sleeve and valve.
 - Thrust restraint shall be in accordance with city standard specification and NFPA 24 underground fire code.
 - Water line testing and sterilization shall be performed in accordance with city standard specification.

Fire Line Installation



Physical characteristics of the block are determined from the following formulas:

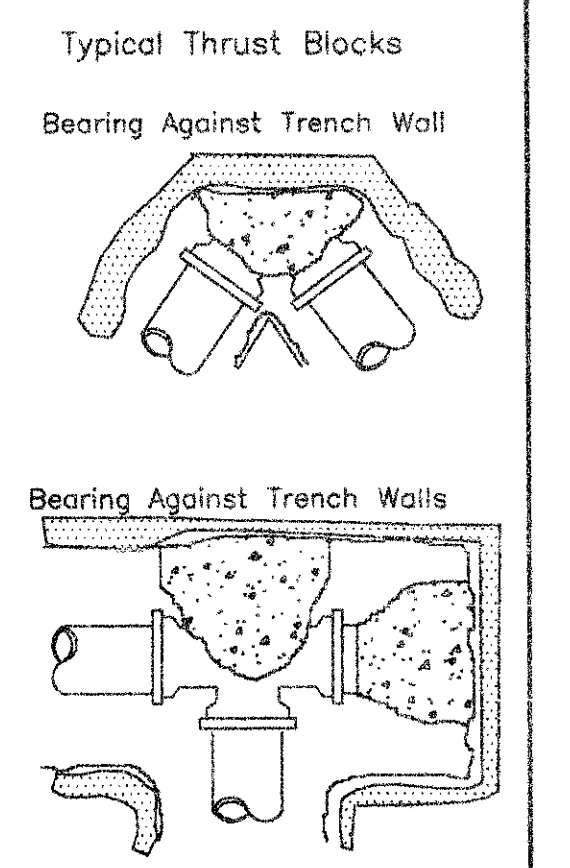
$$V_g = \frac{PA \sin \theta}{W_m} \quad (\text{neglecting } W)$$

$$V_g = \frac{T_x - W_y}{W_m} \quad (\text{including } W) \quad \text{where } W = 1/2 W_c L_x$$

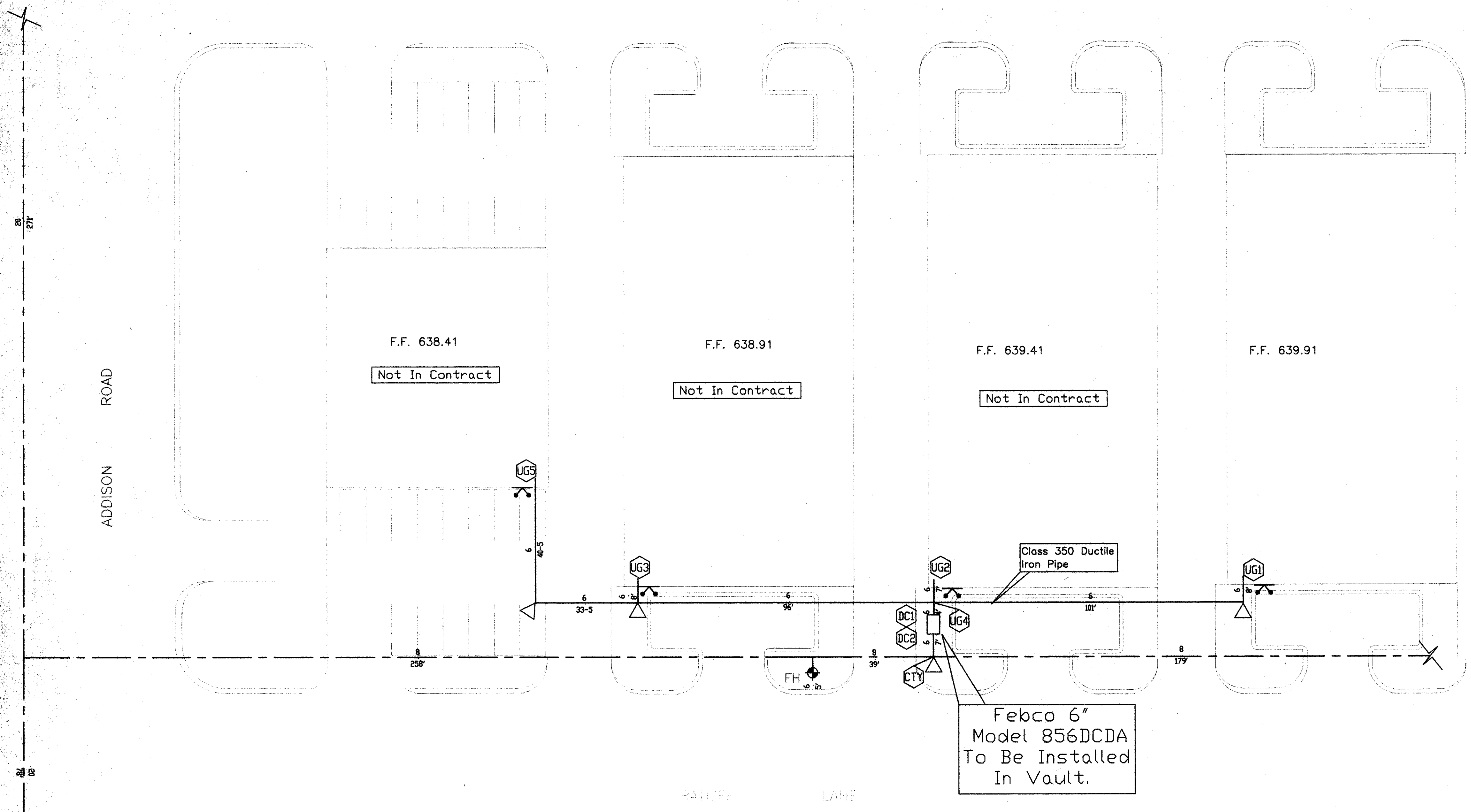
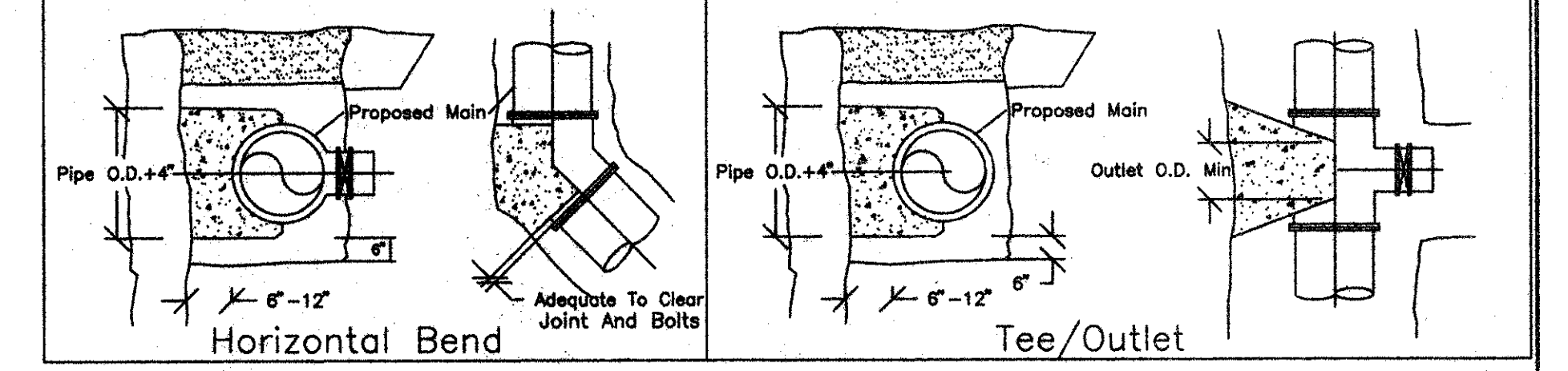
Where V_g = Volume of thrust block (ft³)
 P = Design pressure (psi)
 A = Cross sectional area of pipe (in²) = $36 D^2 \pi$
 W_m = Density of thrust block material (lb/ft³)
 T_x = Resultant thrust force (lb)
 W_y = Backfill soil density (lb/ft³)
 L_x = Minimum required restrained pipe length (ft)

Earth cover (W_e) is neglected when determining (W_c) if unstable conditions are anticipated. The horizontal thrust component (T_x) is counteracted by soil pressure on the vertical face of the block (F_p) or by joint restraint.

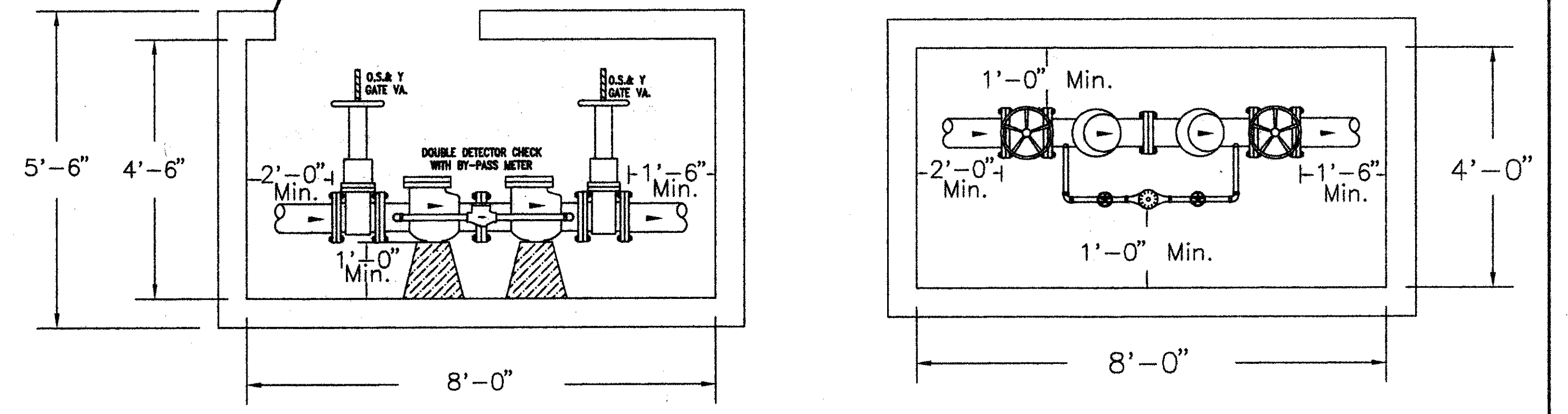
Allowable soil bearing pressure determines the minimum size of the block base.



Concrete Thrust Blocking



- Vault Door To Be Bilco Model K-5 Aluminum 42" x 42"
- Febco 6" Model 856 Double Detector Check With A Hersey ER1 Register With Pit-Pak To Be Installed In Vault Per City Of Addison
- Vault Is Required To Have a Concrete Floor Per City Of Addison
- City Tapping Sleeve Is To Be The Tyler Style.
- The Detector Meter Piping Shall Have An In-line Or Angle Curb-Stop Of An Approved Ball Valve Before The Meter And The Compatible Double-Check Or RPZ Assembly After The Meter, And A Test Port After After The Assembly.
- Mainline Piping Shall Include A Mechanical-Joint Flange Adapter On The Inlet End Of The Assembly To Facilitate Future Removal Or Replacement Of The Assembly.



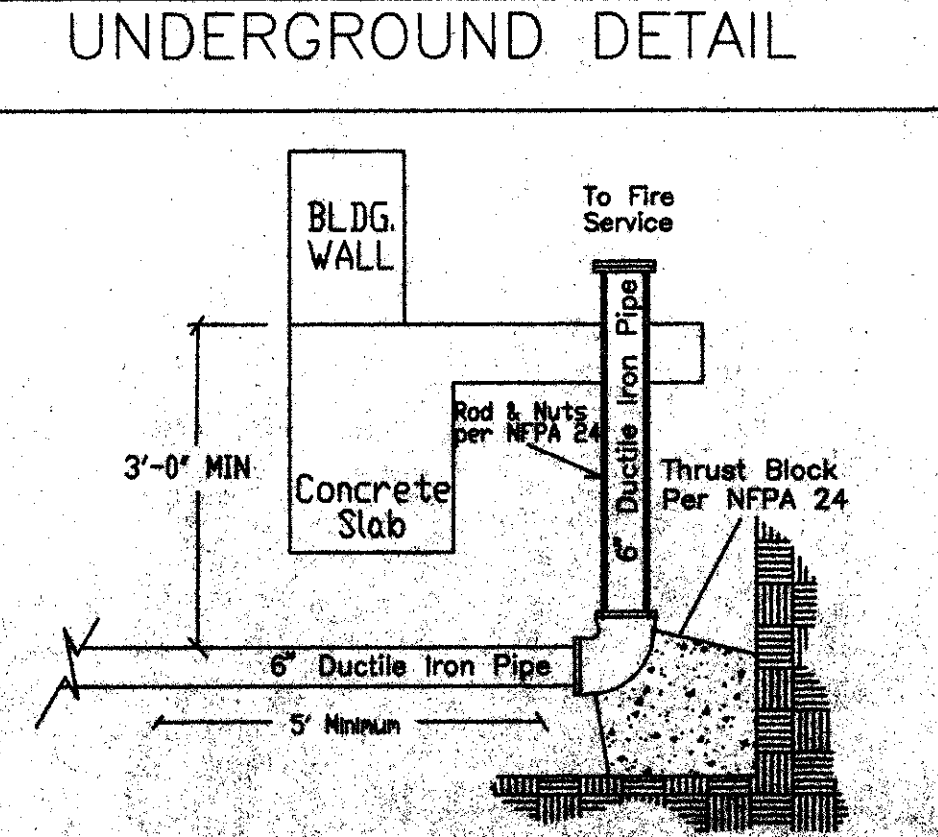
BEFORE DIGGING CONTACT
 SOUTHWESTERN BELL
 # 1-800-395-0440
 DALLAS WATER UTILITIES
 # 311

Legend

Fire Hydrant		Water Mains	
Water Meter		Thrust Block	
Free Standing Fire Department Connection			

Notes

- All 6" fire service mains to be Ductile Iron Class 350.
- All 6" underground piping and vault to be installed by US Fire Protection
- All Underground Piping To Conform To NFPA 24 And City of Addison Fire And Building Codes.



FLOW TEST INFORMATION

Taken By:	Addison Fire Dept.
Observed By:	Addison Fire Dept.
Date Taken:	November 7, 1997
Time Taken:	8:20 AM
STATIC:	52.0 psi
RESIDUAL:	46.0 psi
FLOW:	2095.0 gpm
Flow Test Was Taken One Block South Of Ratliff Lane.	

REVISIONS		RME 0169		RICK MORRISON
Δ	ADDED VAULT DETAILS FOR UNDERGROUND INSTALLATION.			
Δ	JASON WYNNS 11-23-98			
		U. S. FIRE PROTECTION P.O. BOX 270948 DALLAS, TEXAS 75227 972-226-5444		
		PROJECT: Delta Warehouse Addison TX		
		SHEET TITLE: Site Plan		
		BUILDING #S: 1		
		DATE: 7-23-98 SCALE: 1" = 20' JOB #: 7580 DESIGN BY: Jason Wynns DRAWN BY: Jason Wynns CHECKED BY: TEXAS SCR. 0442 SHEET 1 of 2		

MANSOUR DELTA WAREHOUSE