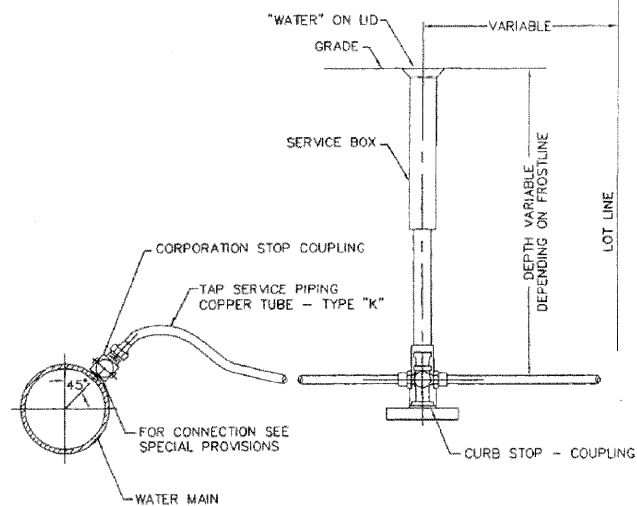
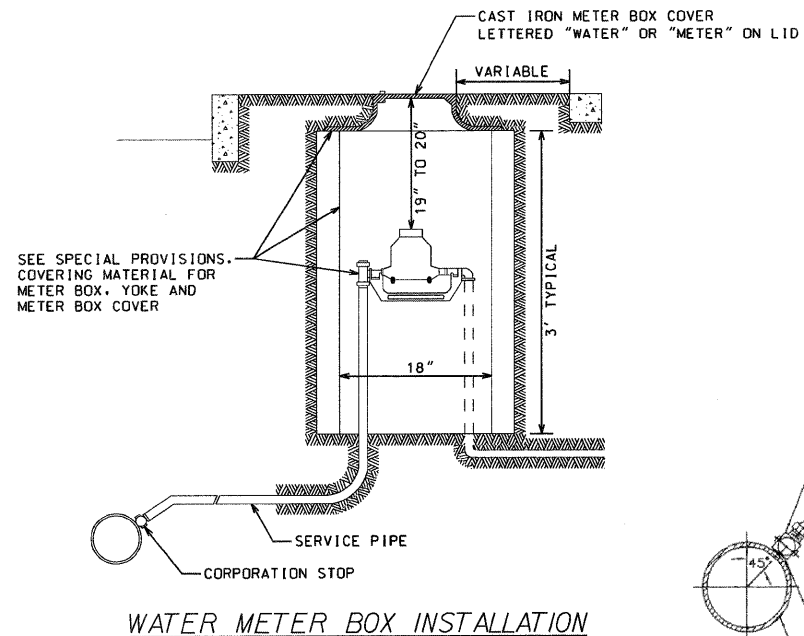
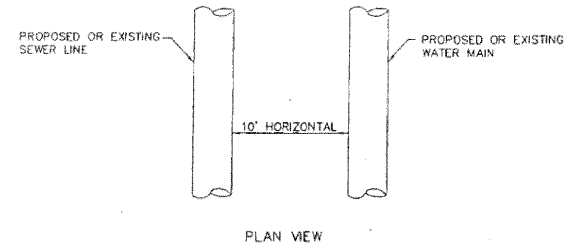


# DETAIL SHEET

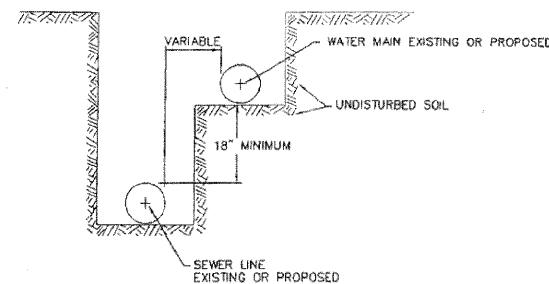
NOT TO SCALE



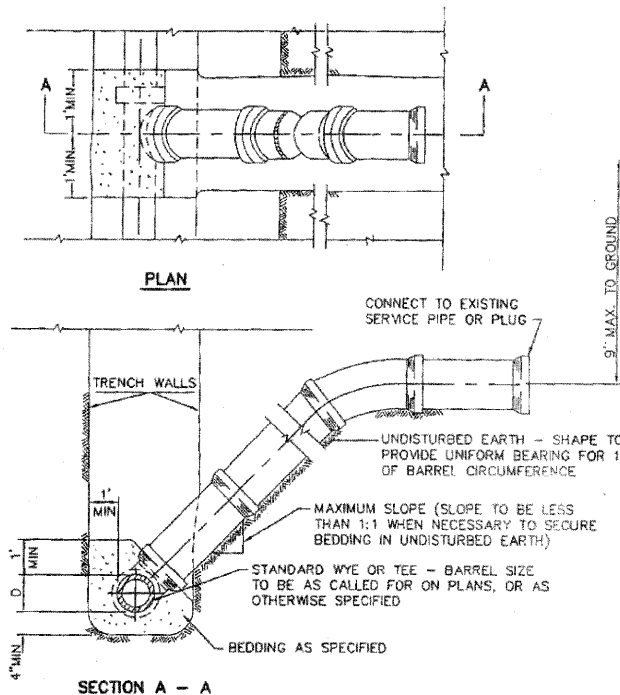
WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE SECTION 41-2.01B (1)



WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY. SEE SECTION 41-2.01B (2)



**WATER AND STORM SEWER SEPARATION (HORIZONTAL)**



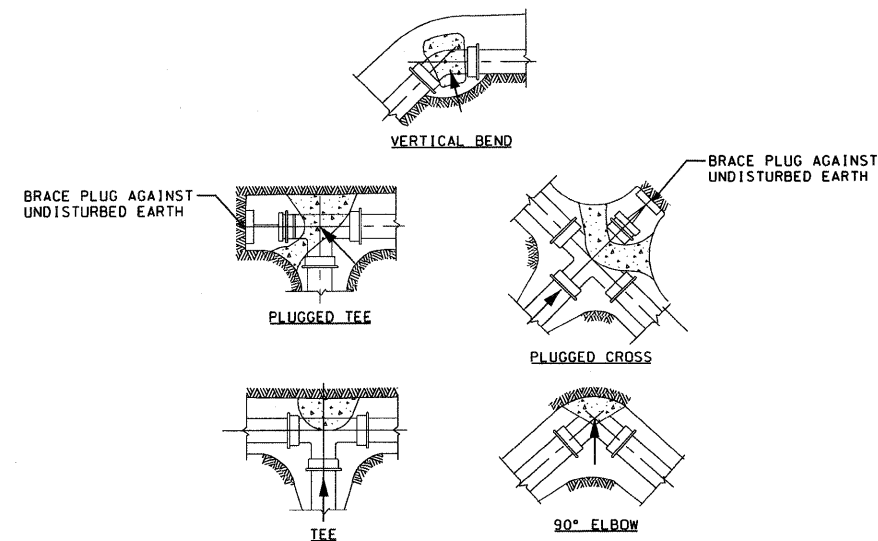
NOTE: WHERE SERVICE LINE IS BELOW FORCE MAIN, CONNECTION IS MADE ABOVE NORMAL FLOW OF MAIN SEWER.

NOTE: RISERS TO BE CONSTRUCTED IN LIEU OF WYES WHERE SEWER DEPTH EXCEEDS 12'-0". FOR PIPE MATERIAL AND CONCRETE SEE SPECIFICATIONS.

**TYPICAL RISER FOR SERVICE LATERAL**

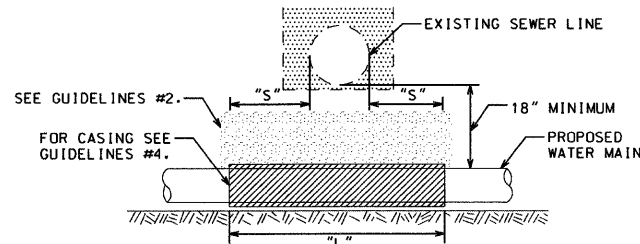
PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.20B



NOTE: ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH. ARROWS INDICATE DIRECTION OF THRUST. ALL BLOCKS TO BE 3000 P.S.I. CONCRETE. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

**TYPICAL THRUST BLOCK INSTALLATIONS**

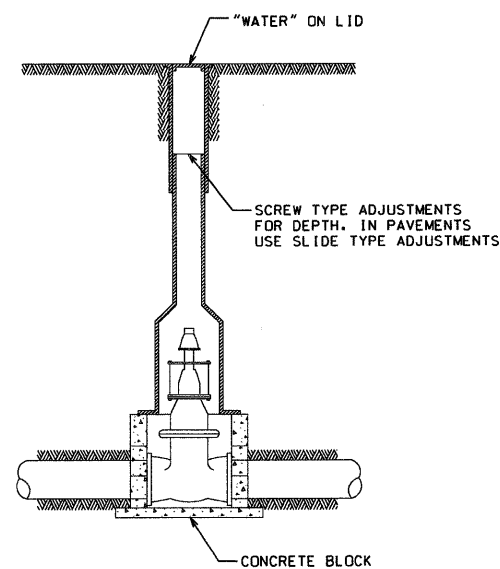


NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AND MEASURED PERPENDICULAR TO EXISTING SEWER LINE.

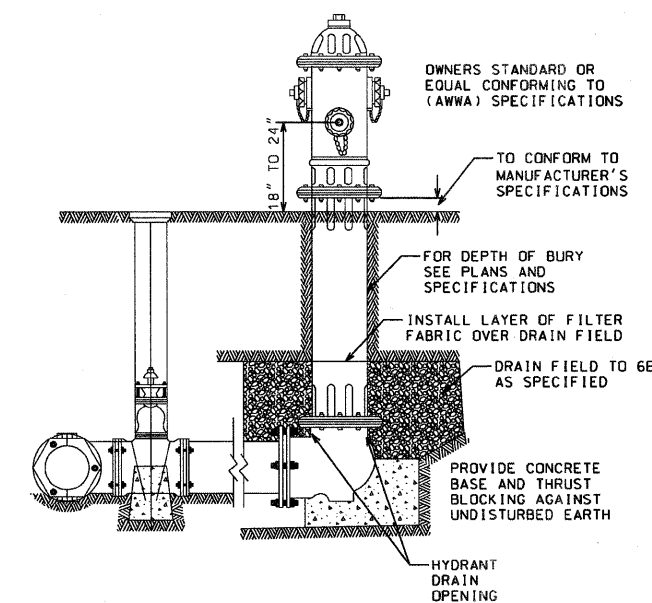
**GUIDELINES**

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

**WATER AND STORM SEWER SEPARATION (VERTICAL)**



**TYPICAL VALVE BOX INSTALLATION**



NOTES:

1. CONCRETE BASE AND BLOCKING MATERIAL SHALL NOT BLOCK NOR OBSTRUCT HYDRANT DRAIN AS SHOWN IN AWWA MANUAL M 17

**FIRE HYDRANT ASSEMBLY**

FILE NAME =	USER NAME = default	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>UTILITY RELOCATION DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pr\projects\513581\cadd\dgn\0876838-sh	dra-m-details.dgn	DRAWN -	REVISED -			600	60-(30,31,128)-1	MADISON/ST. CLAIR	399	136	
	PLOT SCALE = 20,0000 ' / IN.	CHECKED -	REVISED -			CONTRACT NO. 76830					
	PLOT DATE = 8/25/2009	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					