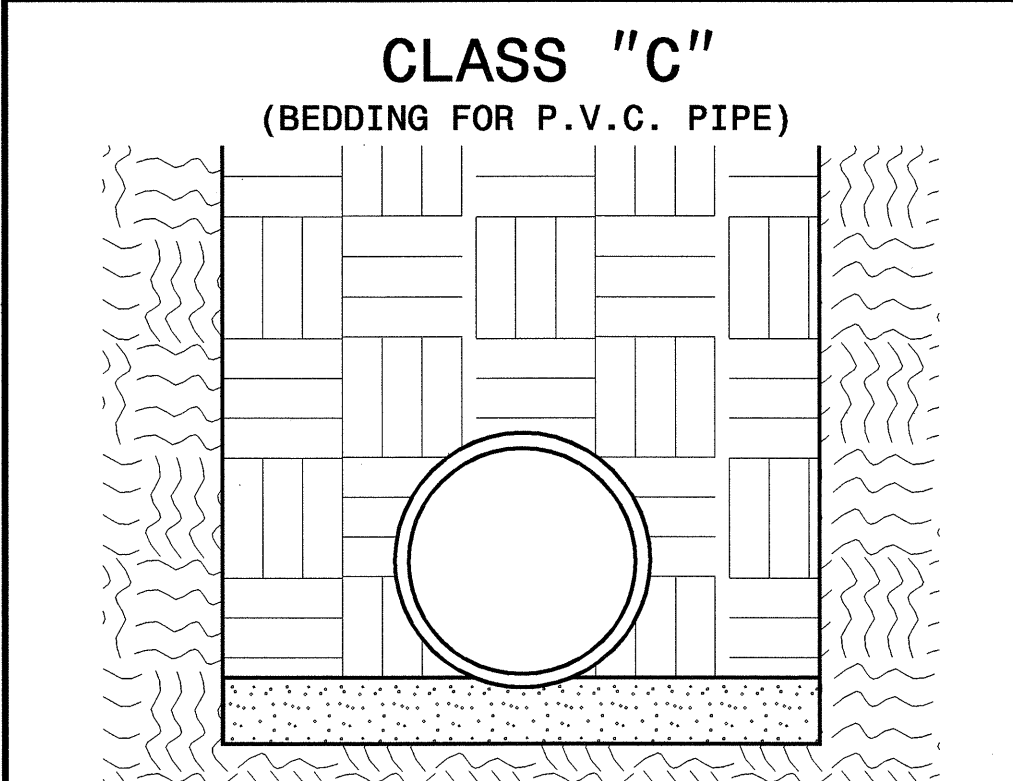
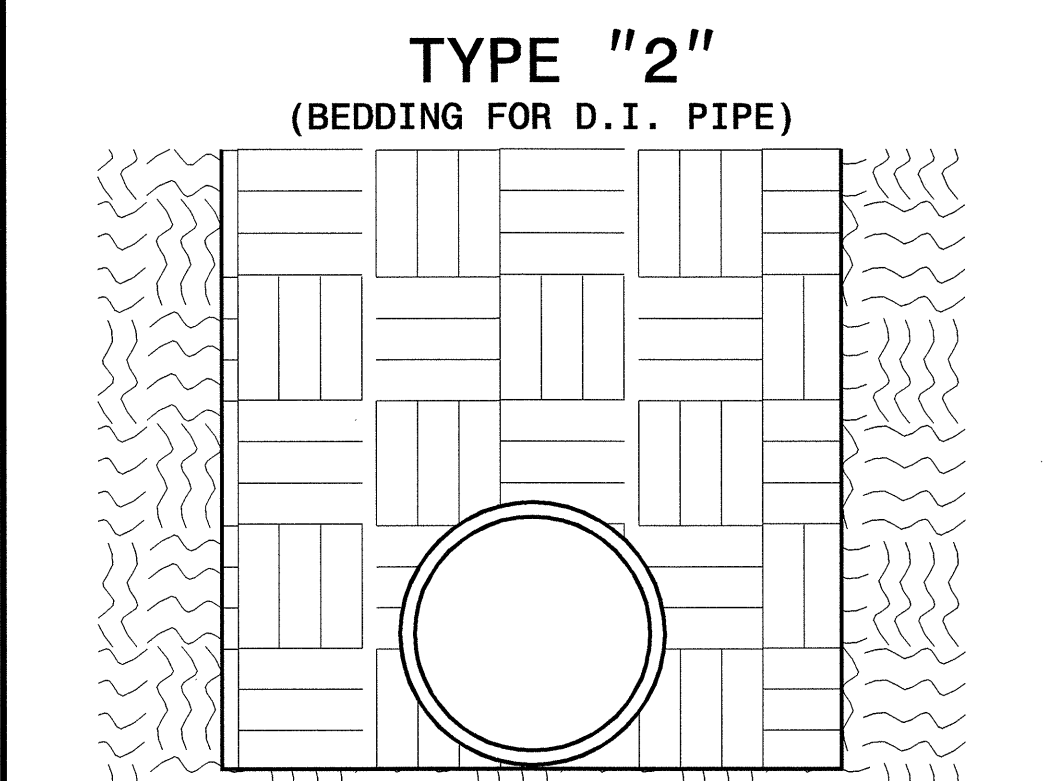


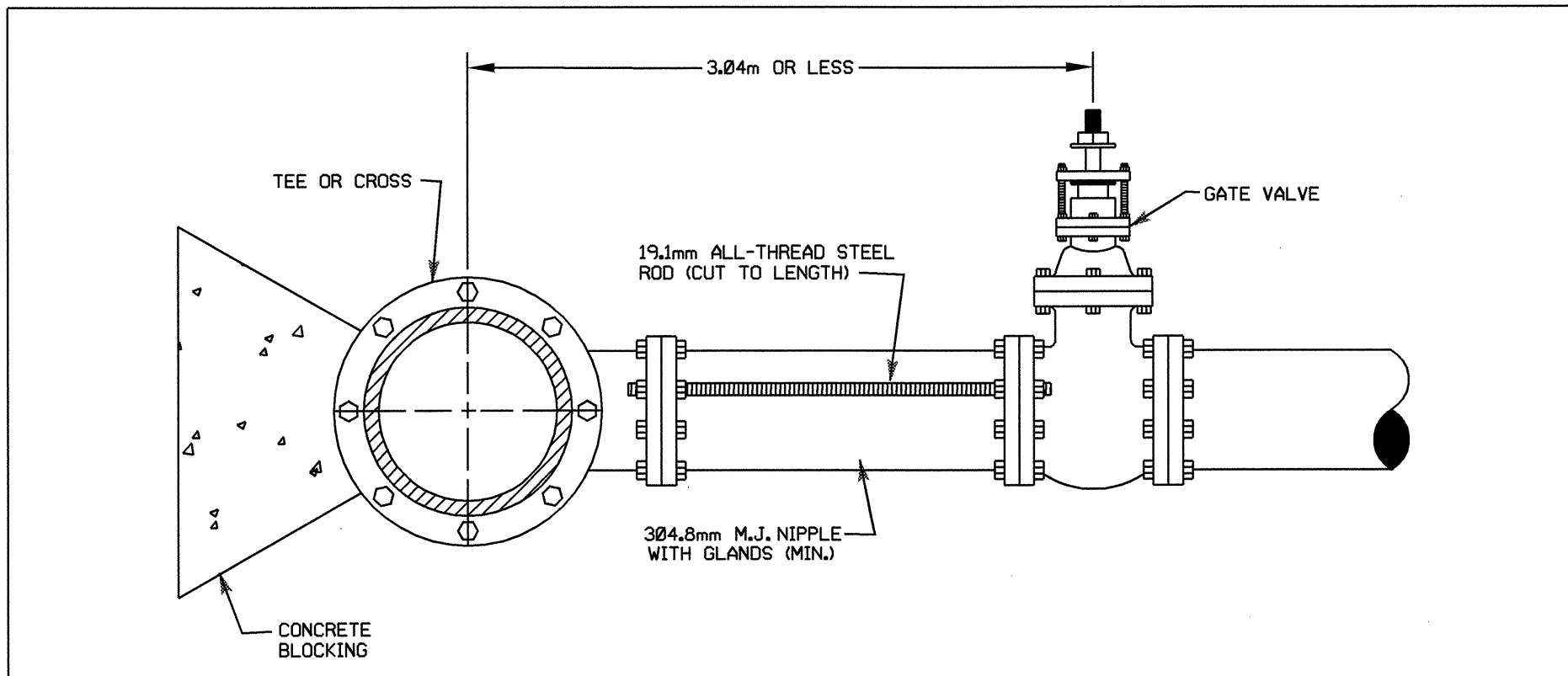
RELOCATED FIRE HYDRANT INSTALLATION DETAIL



PIPE BEDDED IN LOOSE MATERIAL, LIGHTLY TAMPED WITH A MINIMUM OF 150 mm UNDER PIPE. TRENCH BACKFILLED IN LOOSE 150 mm LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL, IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.



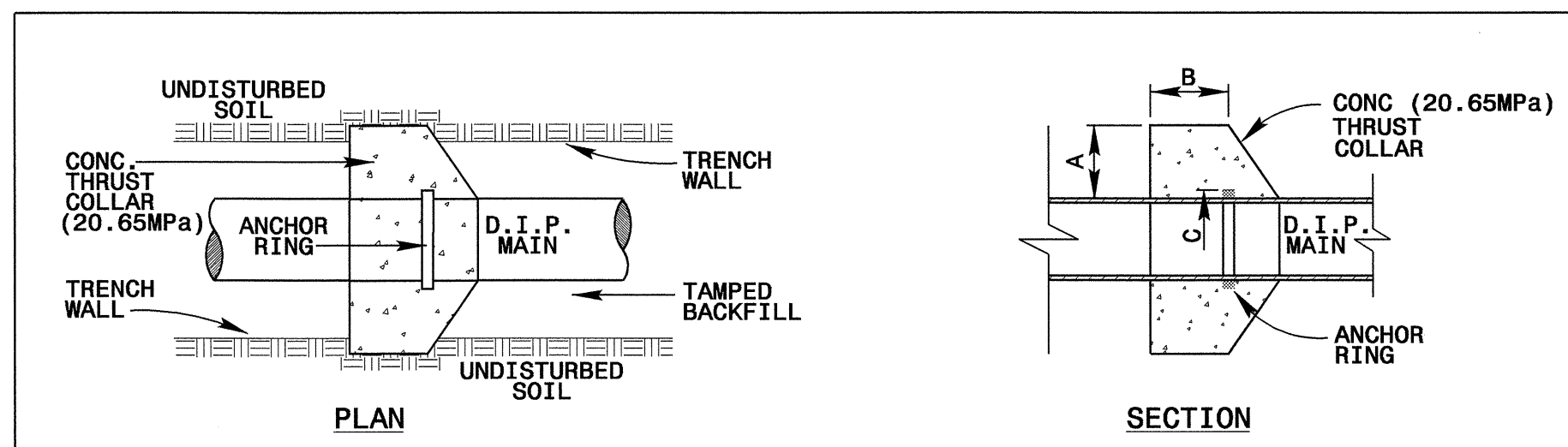
PIPE BEDDED IN FLAT-BOTTOM TRENCH. TRENCH BACKFILLED IN LOOSE 150 mm LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL, IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.



ROD REQUIREMENTS	
BRANCH SIZE	NO. OF RODS
100	2
150	2
200	4
300	4
400	6
600	6

- GENERAL NOTES:
- ONCE INSTALLED AND TIGHT, THE STEEL RODS AND BOLTS SHALL BE COATED WITH 2 COATS OF BITUMINOUS BASE PAINT.
 - SEE STANDARD THRUST BLOCK.
 - CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.

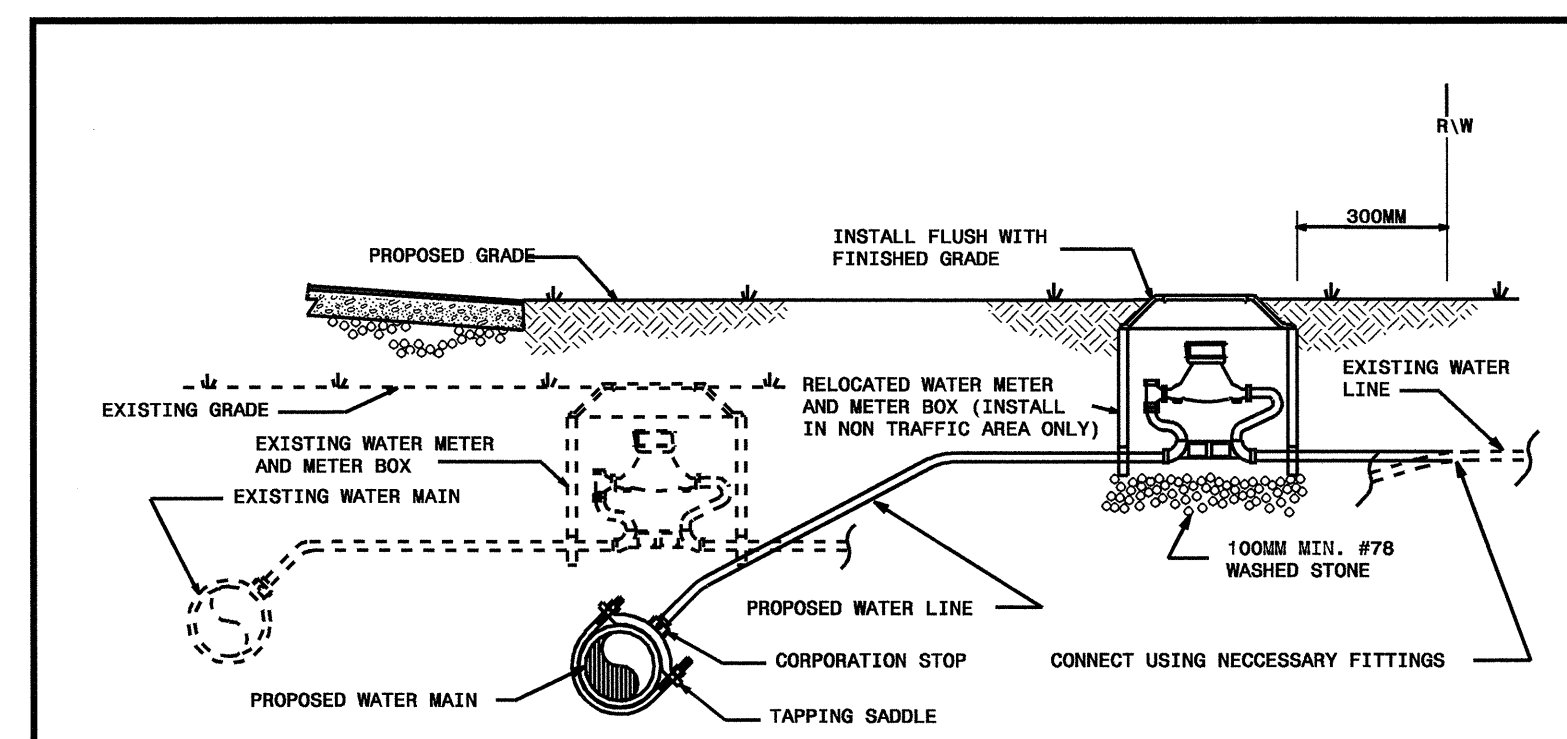
STANDARD VALVE RODDING



PIPE DIAMETER (IN MILLIMETERS)	SCHEDULE			RINGS REQUIRED
	CONCRETE THRUST COLLAR	ANCHOR RING	ANCHOR RING	
150, 200, 300	304.8mm	304.8mm	50.8mm	ONE
400	406.4mm	304.8mm	50.8mm	ONE
500	406.4mm	304.8mm	76.2mm	ONE
600	406.4mm	304.8mm	76.2mm	TWO
750	406.4mm	355.6mm	101.6mm	TWO
900	406.4mm	406.4mm	101.6mm	TWO

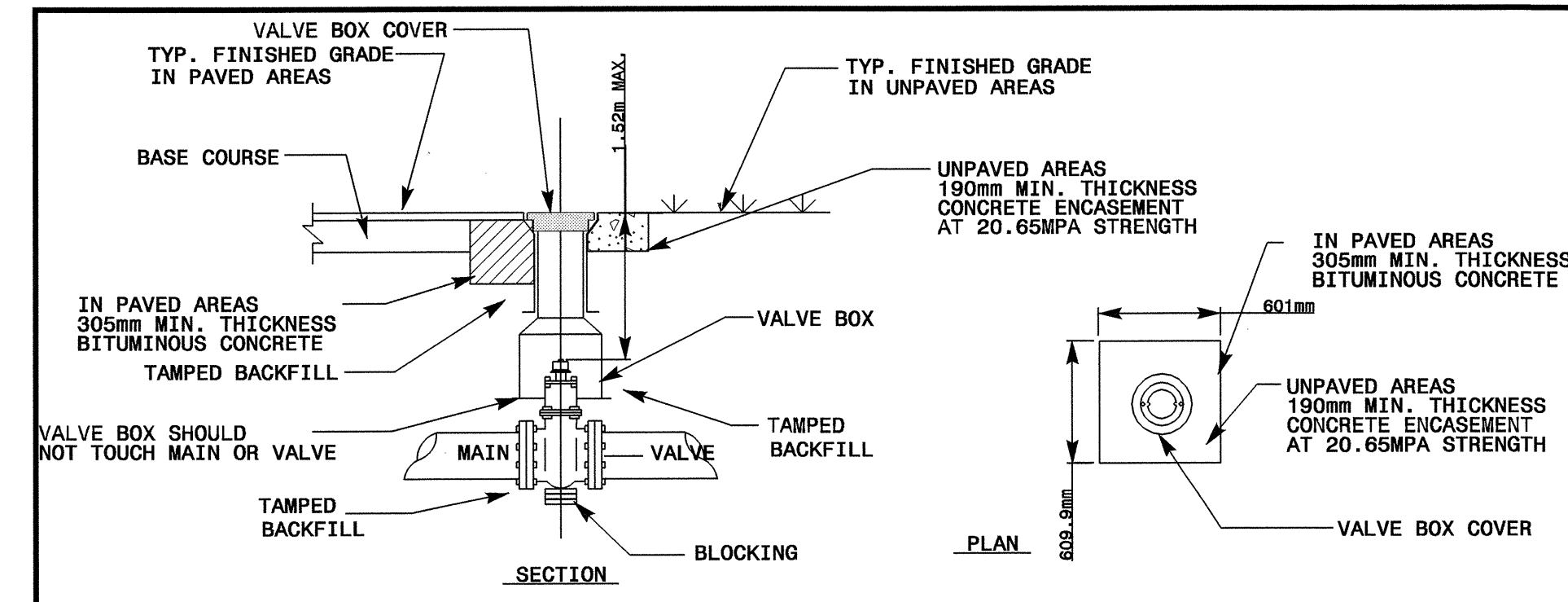
NOTE:
 150mm TO 400mm MAINS = 12-NO. 7 BARS
 500mm TO 900mm MAINS = 12-NO. 8 BARS
 BARS PLACED AS SHOWN

STANDARD THRUST COLLAR INSTALLATION



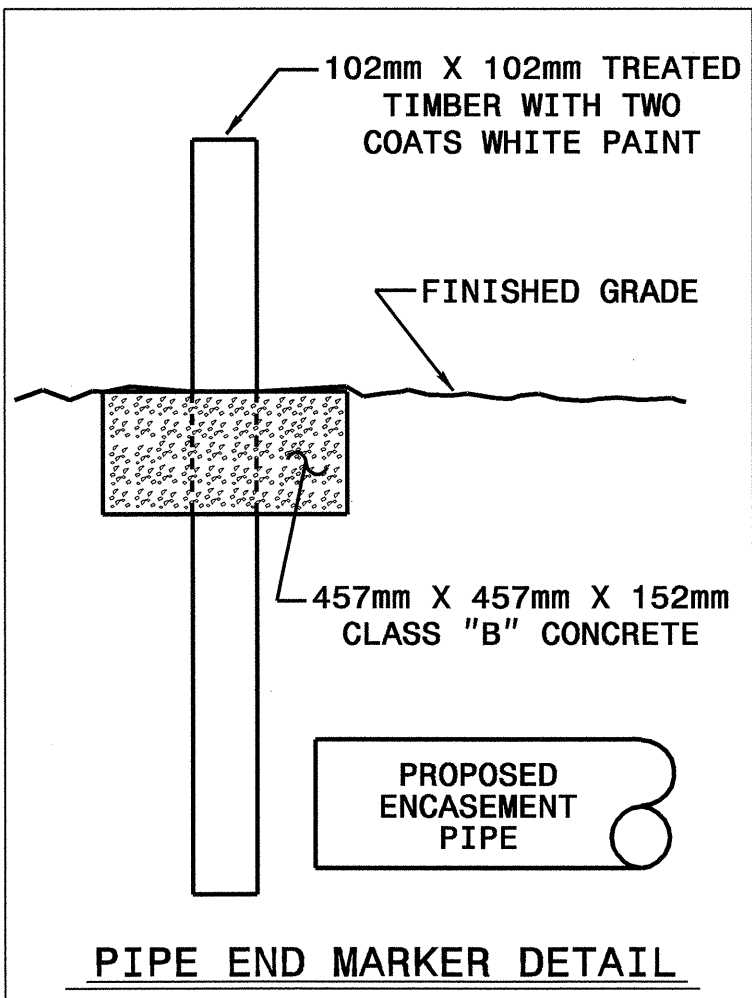
- NOTES:
- RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, METER VALVES, AND METER BOX WITH LID.
 - THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
 - THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 300MM COVER BELOW FINISHED GRADE.

WATER METER RELOCATION DETAIL



- NOTES:
- DUCTILE IRON PIPE MAY BE USED FOR VALVE BOX EXTENSIONS.
 - VALVE OPERATING NUT MUST BE EXTENDED SO THAT THE DEPTH IS NO GREATER THAN 1.52mm FROM THE SURFACE, USING A MANUFACTURER APPROVED EXTENSION KIT.
 - PRECAST CONCRETE ENCASEMENT IS ALLOWED OUTSIDE OF PAVED AREAS.

STANDARD VALVE BOX INSTALLATION



PIPE END MARKER DETAIL