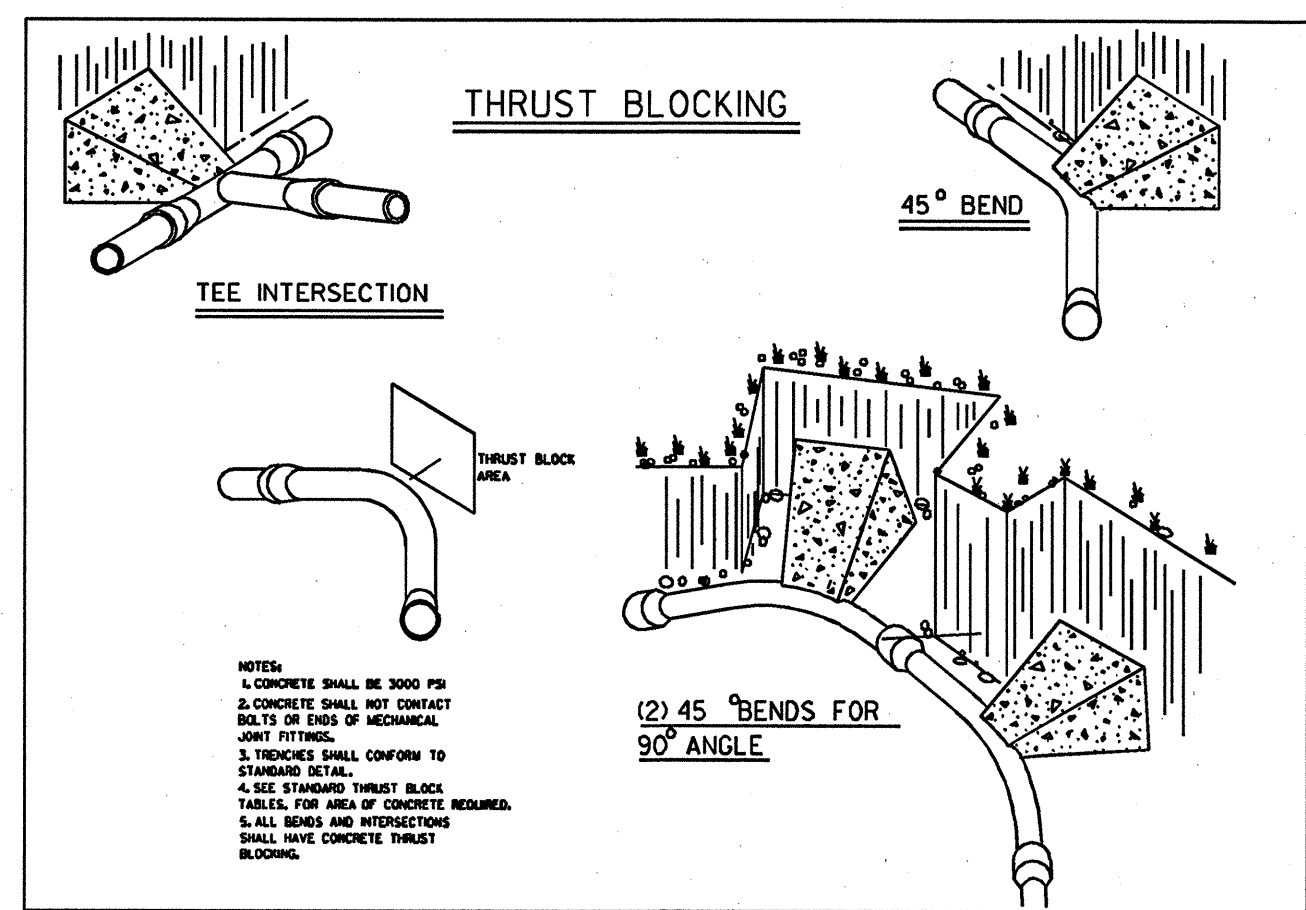
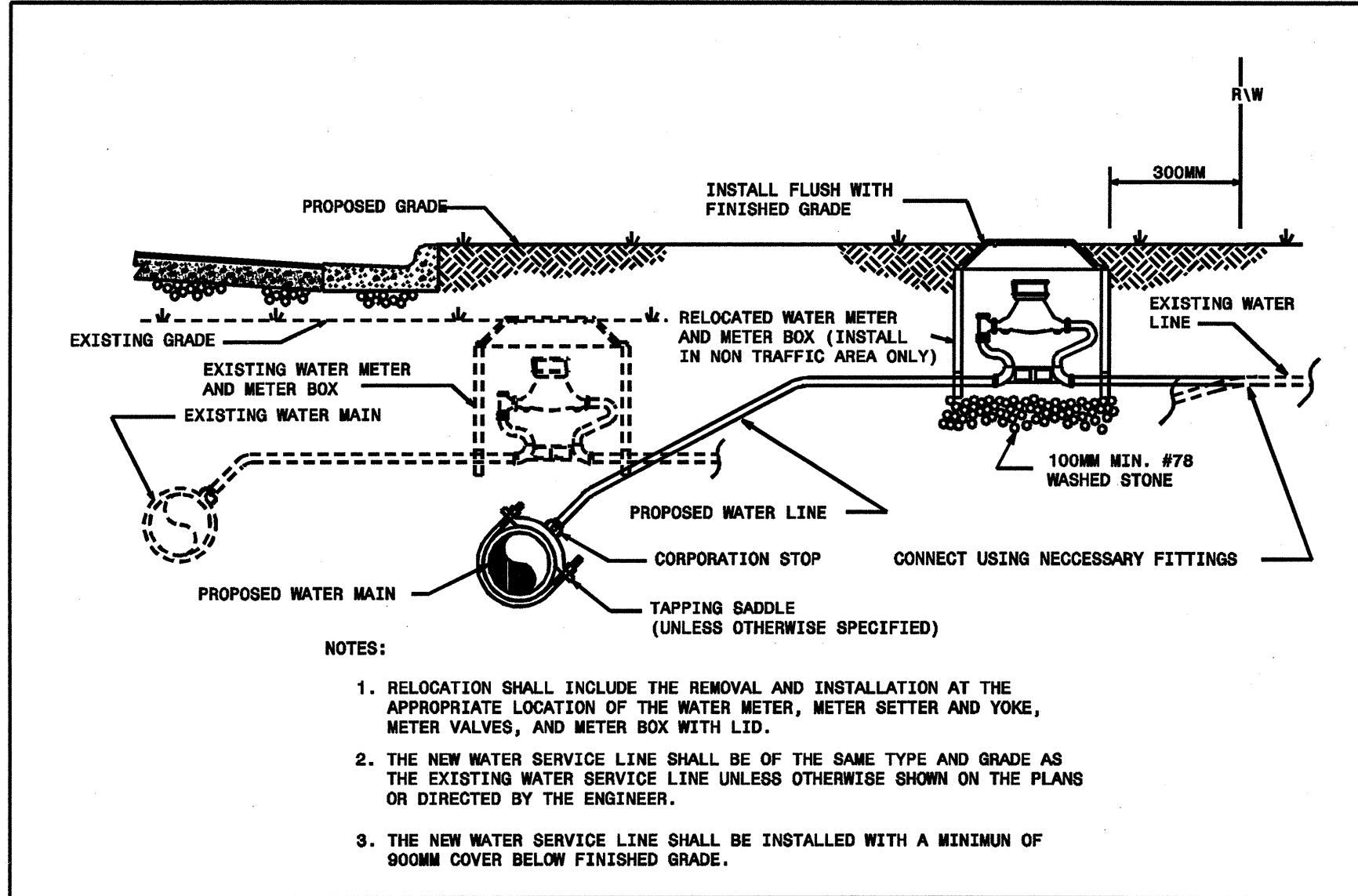


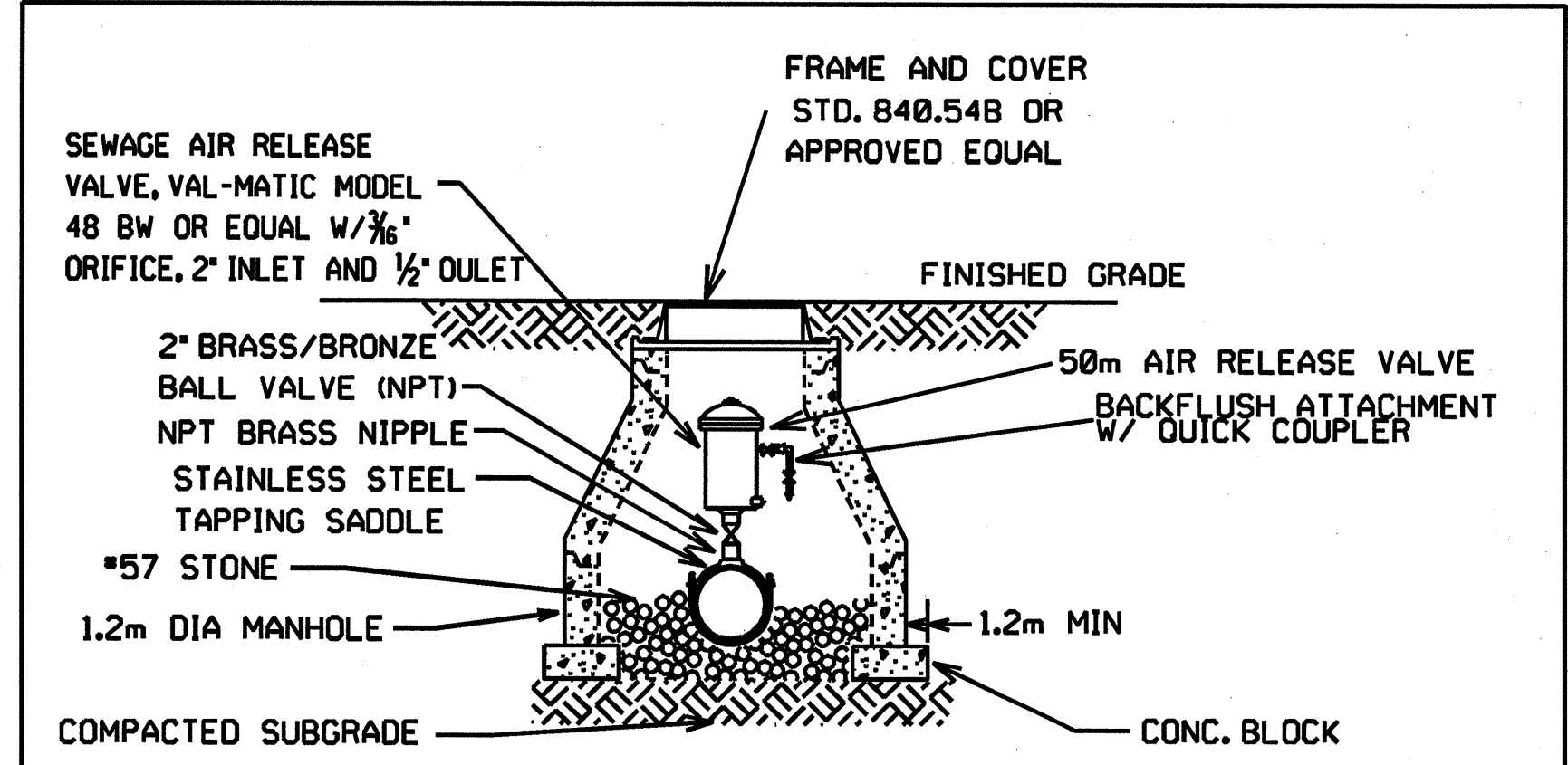
PROPOSED DRAINAGE CONFLICT DETAILS



THRUST BLOCKING DETAIL



WATER METER RELOCATION DETAIL

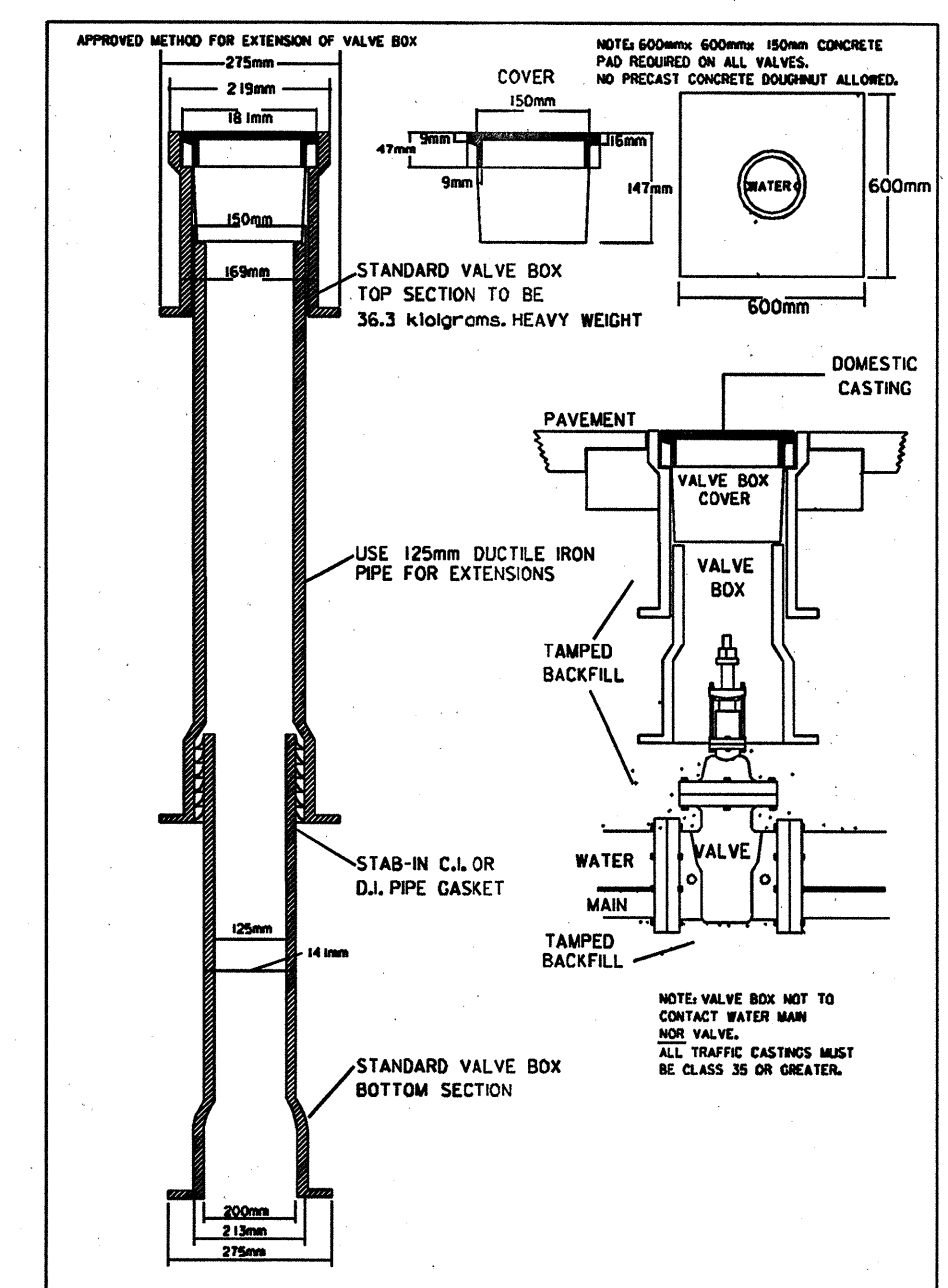


SEWERAGE AIR RELEASE VALVE & MANHOLE

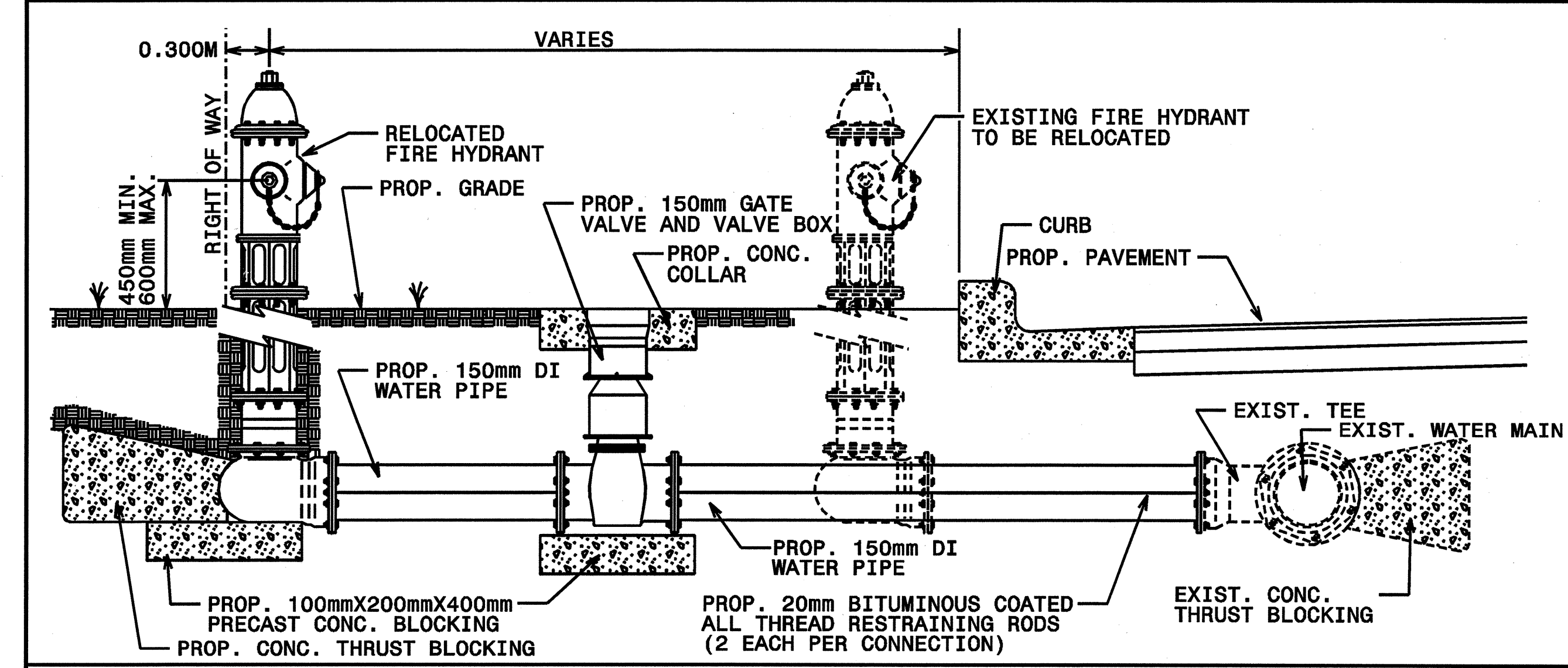
REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
 BASED ON TEST PRESSURE OF 1,38MPa
 ALL AREAS GIVEN IN SQUARE FEET

PIPE SIZE (mm)	90° BEND	45° BEND	30° BEND	15° BEND	10° BEND	5° BEND	3° BEND	2° BEND	1° BEND
150mm	1,108	2,207	4,328	7,996	5,655	1,910	3,922	7,694	14,215
200mm	1,910	3,922	7,694	14,215	10,053	3,791	7,546	14,802	27,351
250mm	3,791	7,546	14,802	27,351	19,340	6,826	13,652	27,312	51,983
300mm	6,826	13,652	27,312	51,983	36,199	12,614	25,228	50,456	93,812

THRUST BLOCKING TABLE



GATE VALVE DETAIL

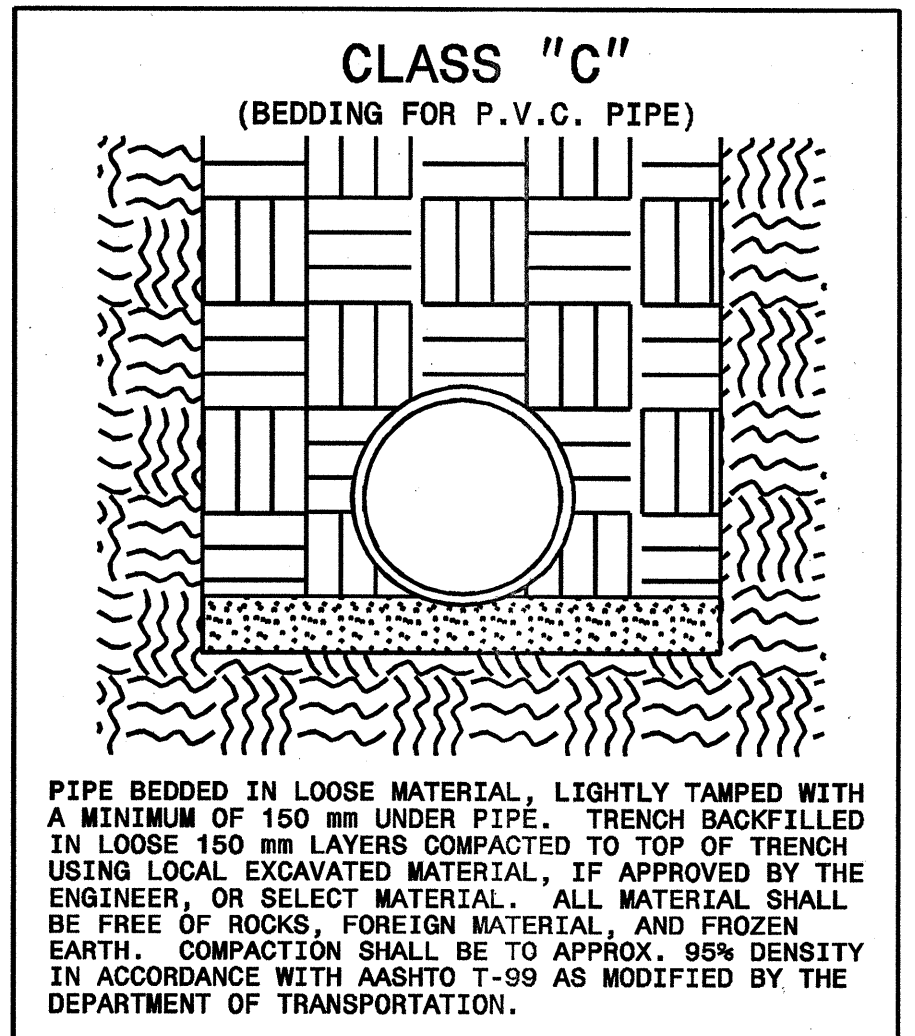


FIRE HYDRANT RELOCATION DETAIL

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (mm)	TRENCH WIDTH (mm)	NOMINAL PIPE SIZE (mm)	TRENCH WIDTH (mm)
100	700	500	1100
150	750	600	1200
200	800	750	1350
250	850	900	1500
300	900	1050	1650
350	950	1200	1800
400	1000	1350	1950
450	1050		

TRENCH WIDTH DETAIL



TRENCH DETAIL