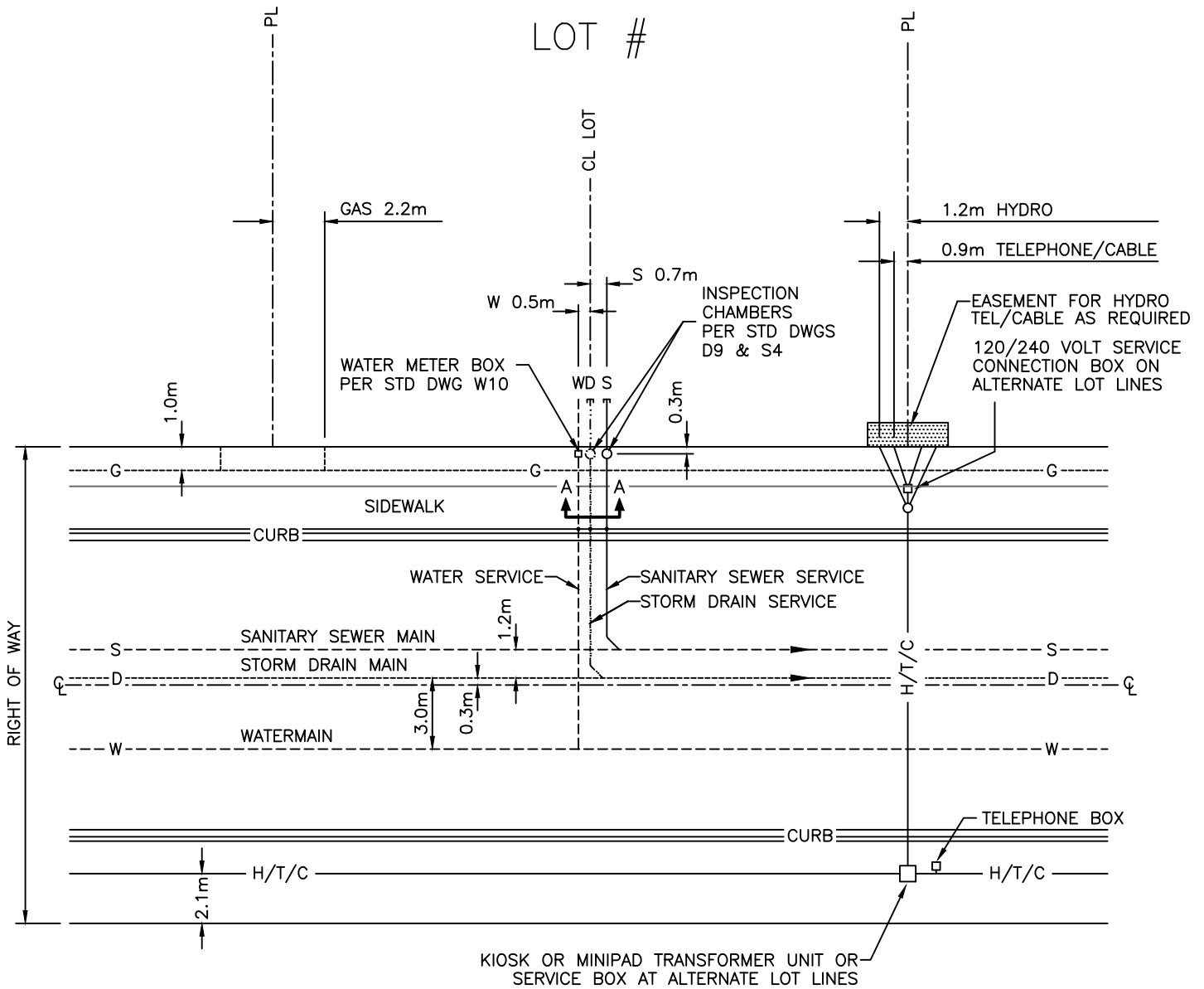
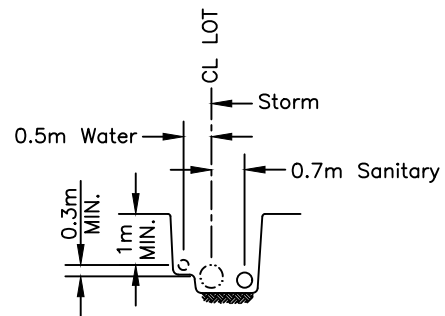


LOT #



NOTE:

1. WHERE IT IS NECESSARY FOR CITY SERVICES TO BE LOCATED ON THE LOWER SIDE OF THE LOT (E.G. WHERE SIDE LOT GRADES ARE STEEP, SEWERS ARE SHALLOW, OR MBE'S ARE TOO HIGH, ETC.), NON-CITY SERVICES (H/T/C/G) MUST BE LOCATED ON THE OPPOSITE SIDE OF THE LOT. THIS MAY REQUIRE ADDITIONAL SERVICES BOXES.
2. WHERE SANITARY SEWERS AND STORM DRAINS ARE INSTALLED IN A COMMON TRENCH, THERE SHALL BE A MINIMUM 300 mm LATERAL CLEARANCE BETWEEN THE WALLS OF THE PIPES AND TRENCH WALLS.
3. MINIMUM 0.3m CLEARANCE FROM GAS MAIN TO STREETLIGHT DUCT



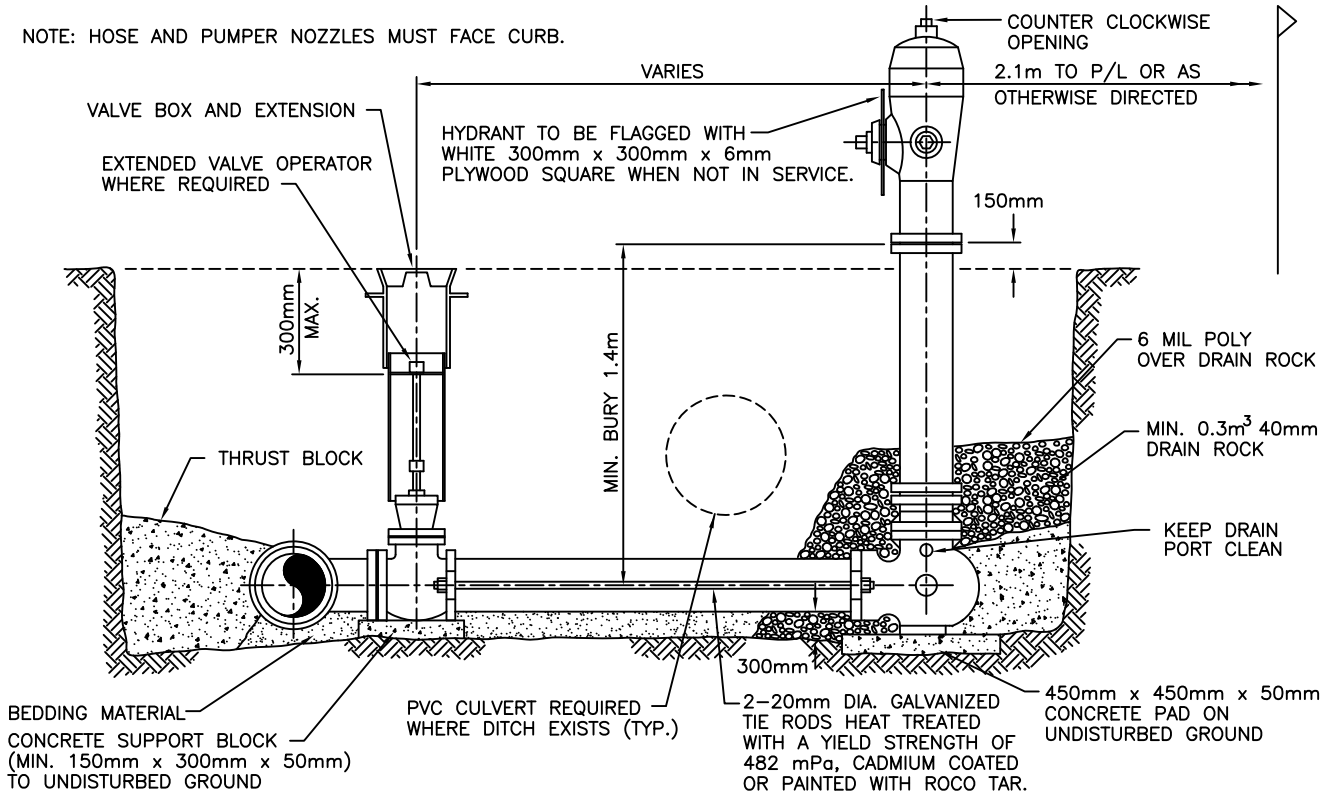
SECTION A-A
SHOWING CONNECTIONS

City of
Parksville

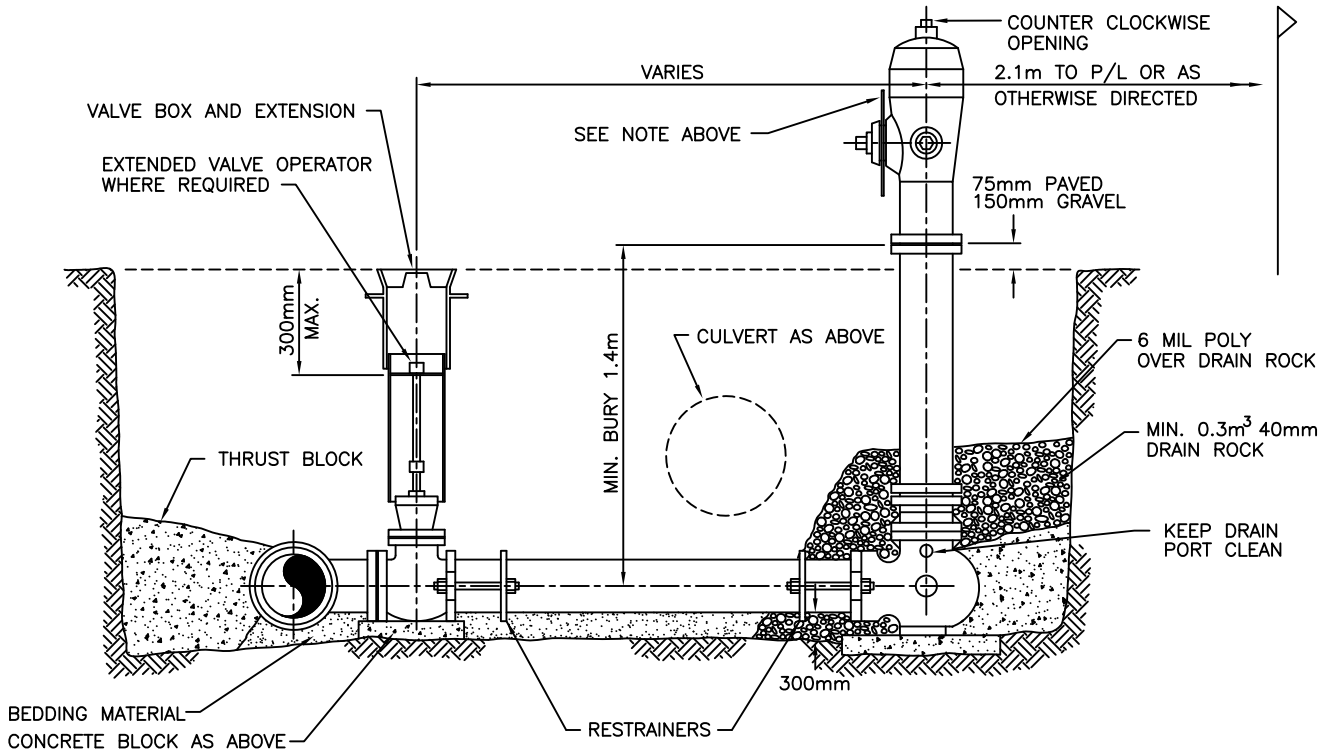
TYPICAL LOCATION OF SERVICE
CONNECTIONS TO
RESIDENTIAL VACANT LOTS

Scale	N.T.S.
Drawn	GC
Date:	NOV 2017
Dwg. No.	W1

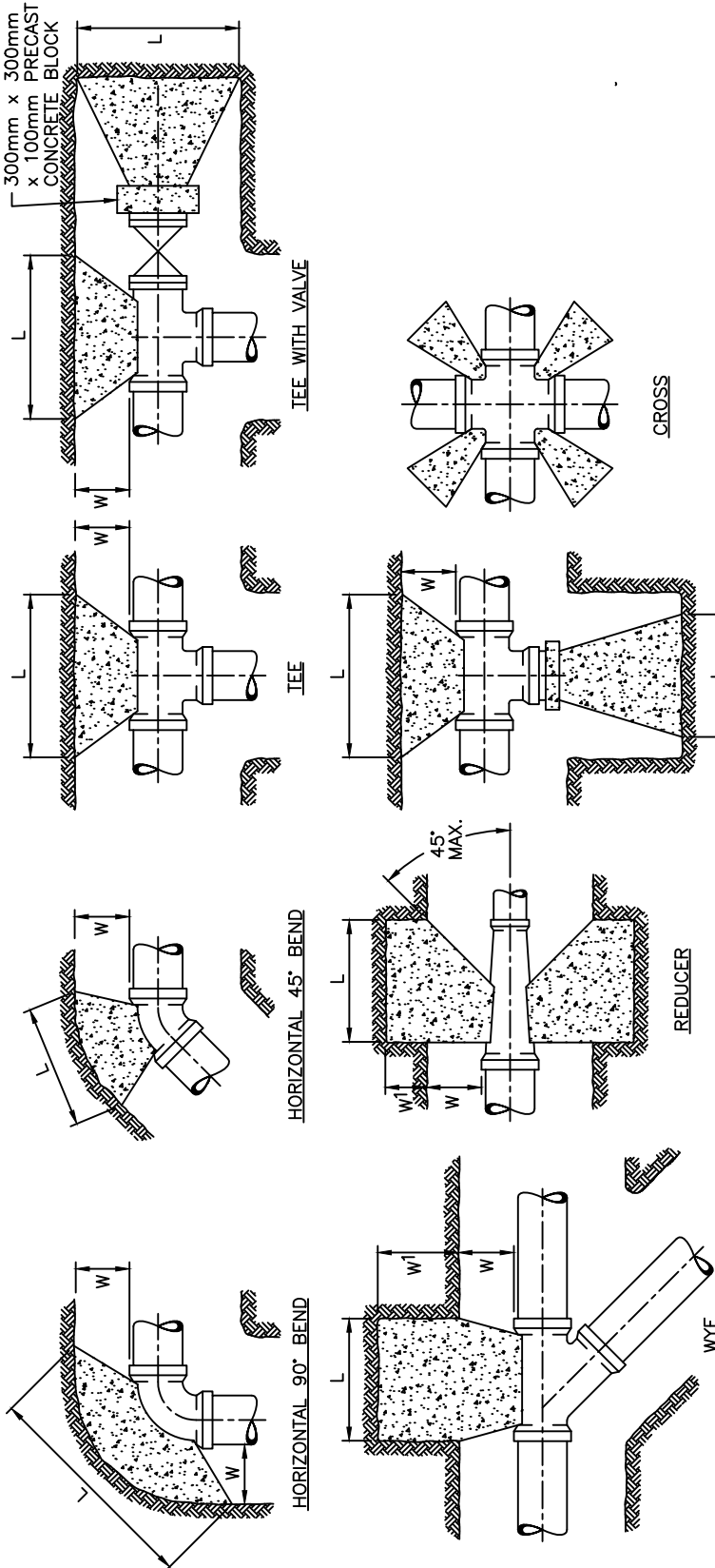
NOTE: HOSE AND PUMPER NOZZLES MUST FACE CURB.



HYDRANT CONNECTION WITH TIE RODS



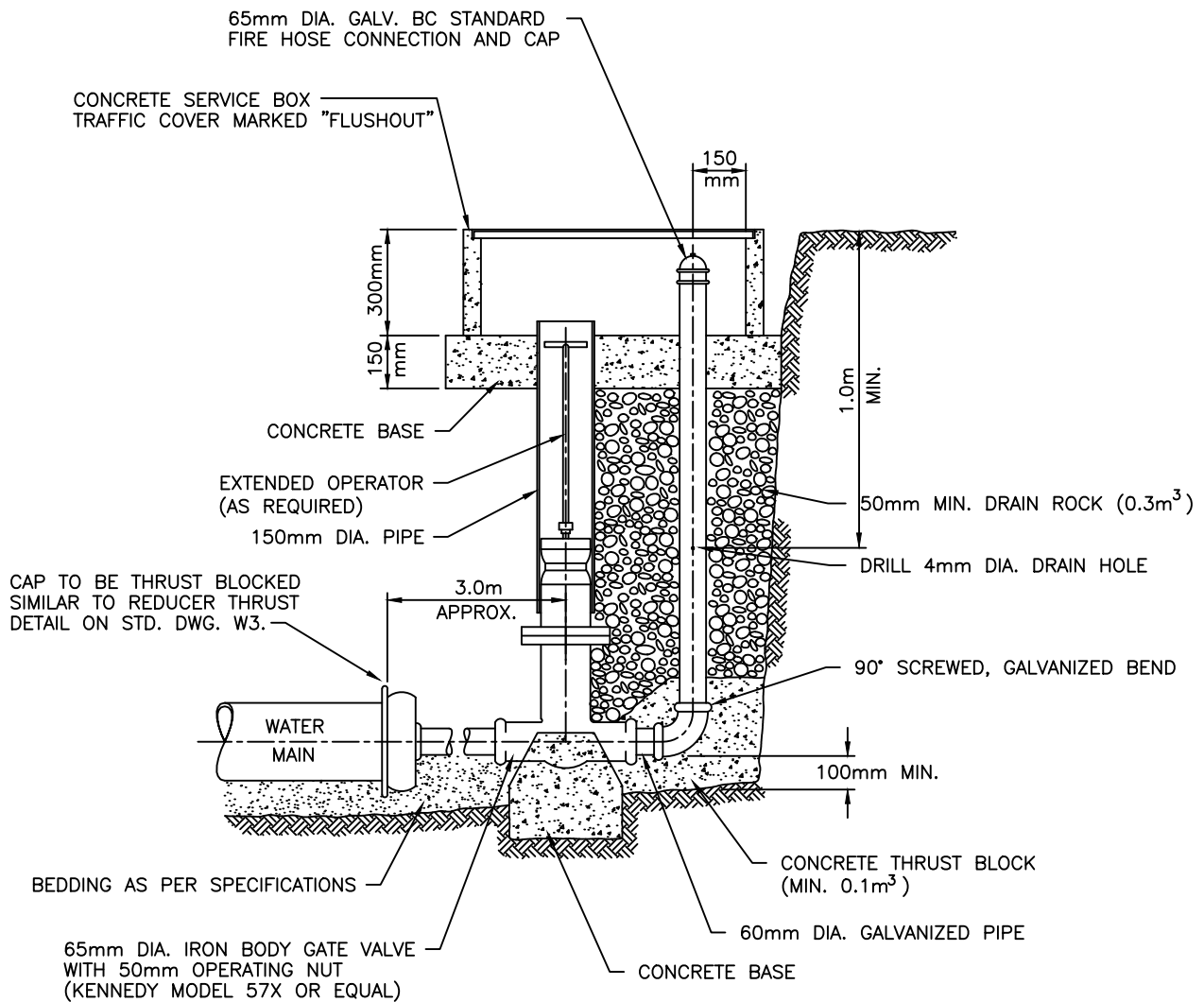
HYDRANT CONNECTION WITH RESTRAINERS



NOTE: USE 150 FITTING THRUST BLOCKS SIZES FOR 100 DIA. FITTINGS. DIMENSIONS APPLY TO THE LARGER DIAMETER END OF FITTING

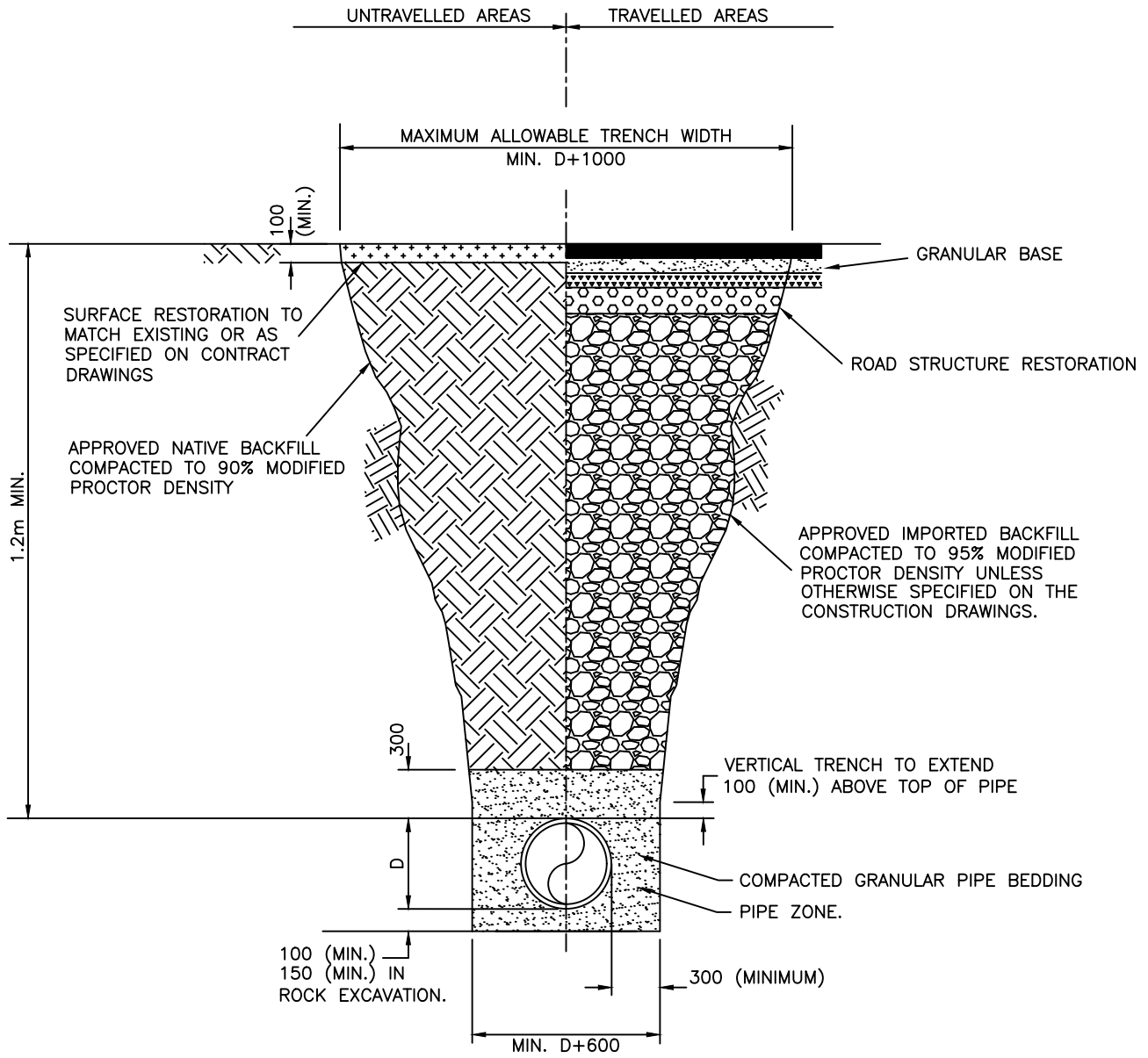
MINIMUM THRUST AREAS FOR FITTINGS AT 1030kN/m² PRESSURE AND FOR SOILS WITH A MINIMUM BEARING OF 96kN/m² (NOT TO BE USED FOR SOFT CLAY, MUCK, PEAT, ETC.)

TYPE OF FITTING	FITTING SIZE "D" (mm)	OUTSIDE OF FITTING TO BEARING FACE "W" (mm)	RECESS IN TRENCH WALL "W1" (mm)	LENGTH "L" (mm)	HEIGHT "H" (mm)	TYPE OF FITTING	FITTING SIZE "D" (mm)	OUTSIDE OF FITTING TO BEARING FACE "W" (mm)	RECESS IN TRENCH WALL "W1" (mm)	LENGTH "L" (mm)	HEIGHT "H" (mm)
90° BEND	150	300		900	450	CROSS	150	300		600	450
	200	350		1050	600		200	350		750	600
	250	375		1425	750		250	375		975	750
	300	400		1625	900		300	400		1200	900
45° BEND	150	300		450	450	45° WYE	150	300		450	450
	200	350		600	600		200	350		600	600
	250	375		750	750		250	375		750	750
	300	400		900	900		300	400		900	900
22 1/2° BEND	150	300		450	225	REDUCER	150	300		450	450
	200	350		600	300		200	350		600	600
	250	375		825	375		250	375		750	750
	300	400		900	450		300	400		900	900
TEE	150	300		600	450	CAPS AND PLUGS (IF NOT BOLTED)	150	300		450	450
	200	350		750	600		200	350		600	600
	250	375		975	750		250	375		750	750
	300	400		1200	900		300	400		900	900



NOTE:

1. FLUSH-OUTS SHALL BE LOCATED IN NON-TRAFFIC AREAS WHERE POSSIBLE. IF THE FLUSH-OUT CANNOT BE LOCATED OUT OF A TRAFFIC AREA THAN IT SHALL BE HOUSED IN A UTILITY BOX APPROVED FOR H2O LOADING.



D= OUTSIDE DIAMETER

DEPTH OF BEDDING MATERIAL BELOW PIPE

I.D.	d(MIN.)
≤ 675mm	75mm
750mm - 1500mm	100mm
>1500mm	150mm

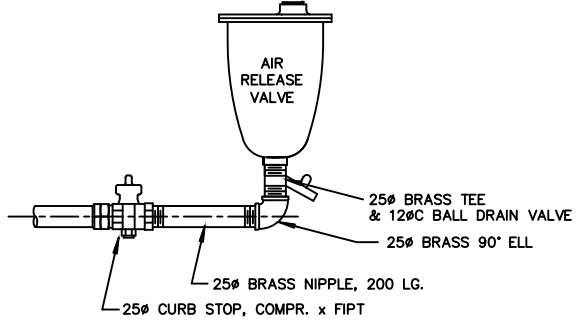
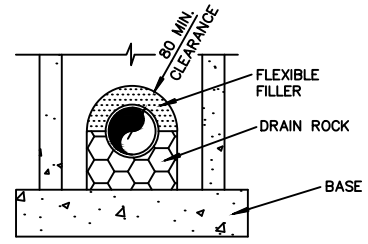
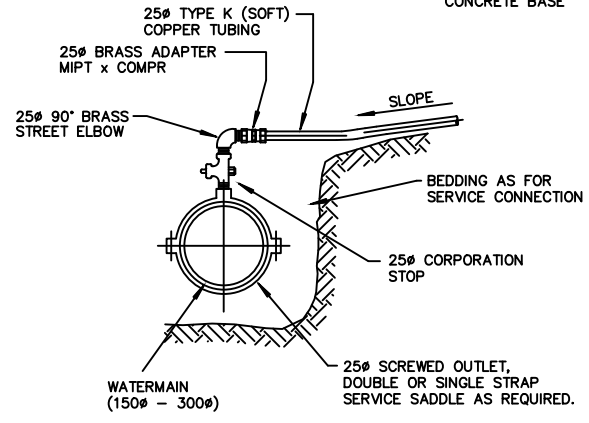
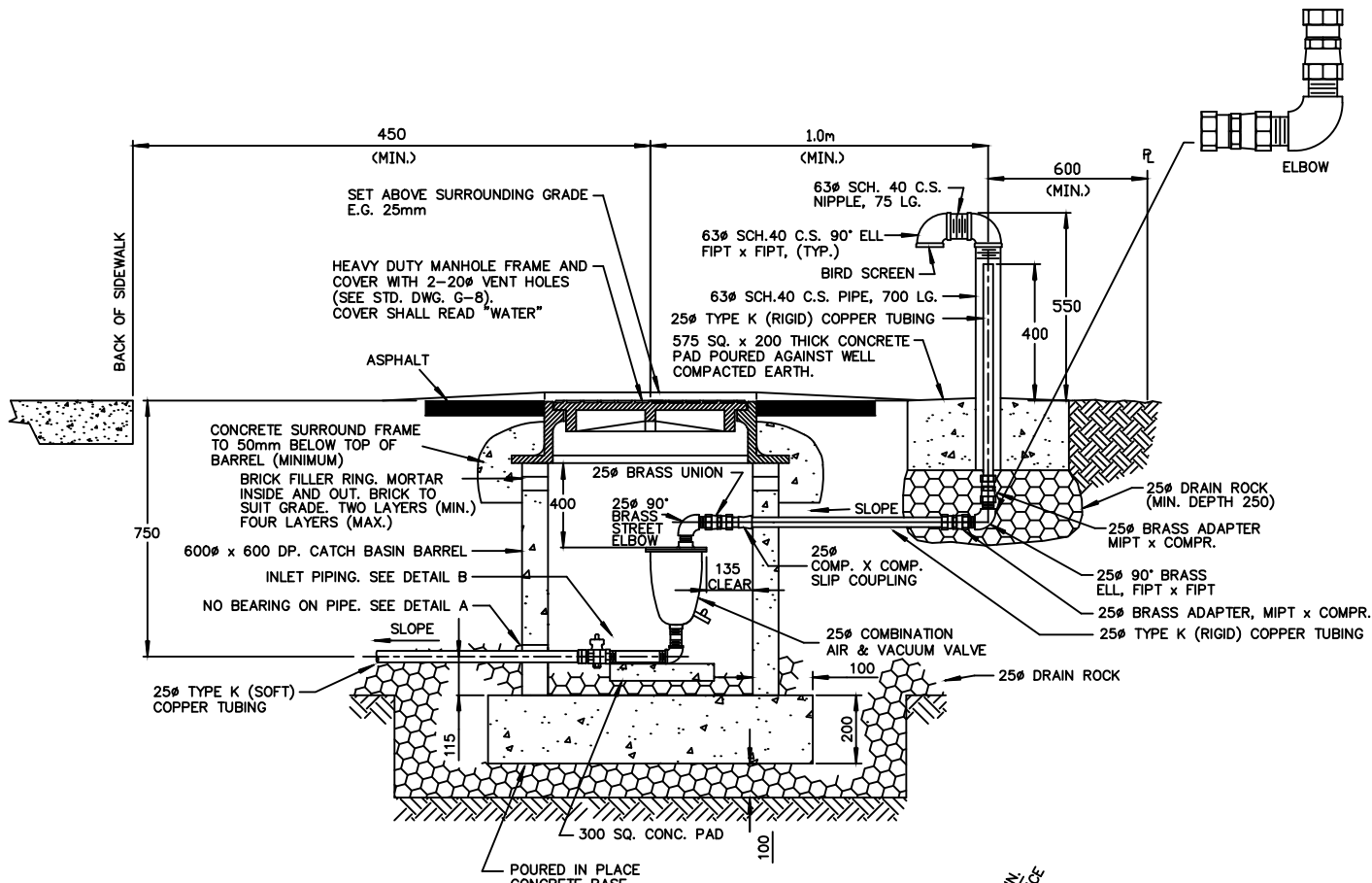
NOTES:

1. UNDER THE TRAVELLED PORTION OF THE ROAD AND DRIVEWAYS, OR WITHIN 1m OF THE EDGE OF THE TRAVELLED ROAD, THE TRENCH WILL BE BACKFILLED WITH COMPACTED 75mm MINUS PIT RUN OR EQUAL UP TO BOTTOM OF ROAD SUB-BASE.
2. FOR EXCAVATION IN ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHOULD BE OVER-EXCAVATED A MINIMUM OF 150mm FROM THE OUTSIDE COUPLINGS OR BELLS OF THE PIPES AND REFILLED WITH GRANULAR BEDDING MATERIAL.
3. ALL BEDDING MATERIALS TO BE COMPACTED IN 150 mm LIFTS TO A MINIMUM 95% MODIFIED PROCTOR DENSITY IN COMPLIANCE WITH ASTM D1557.



WATER TRENCH DETAIL

Scale	N.T.S.
Drawn	G.G.
Date:	JAN 2017
Dwg. No.	W5



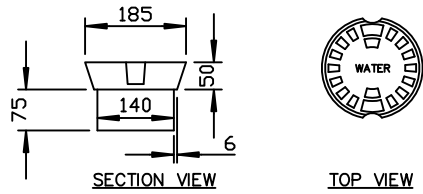
- NOTES:
1. CHAMBERS LOCATED ON GRAVEL ROADS OR SHOULDERS REQUIRE A 1.5m x 1.5m HOT MIX ASPHALT APRON, 50 THICK
 2. PLACE TAR PAPER OR FILTER CLOTH OVER DRAIN ROCK PRIOR TO BACKFILL.
 3. ABOVE GROUND VENT PIPING TO BE PAINTED FOREST GREEN AND LABELLED "AIR VENT" WITH BLACK, 38mm HEIGHT, VINYL STICK-ON OR PAINTED LETTERING.
 4. ONLY PRODUCTS APPROVED BY THE CITY ENGINEER AND LISTED IN APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION
 5. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

City of
Parksville

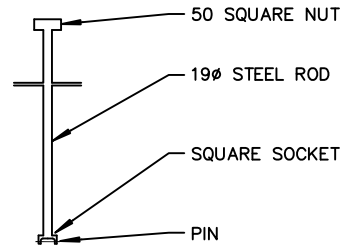
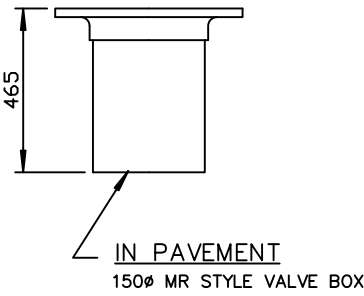
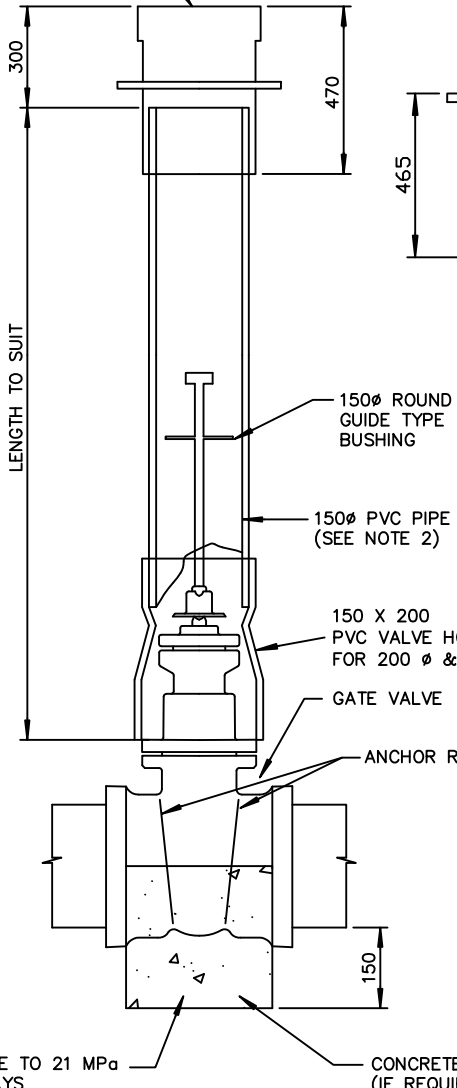
AIR RELEASE VALVE
ASSEMBLY AND CHAMBER FOR
150 - 300 MAIN

Scale	N.T.S.
Drawn	JTD
Date:	JAN 2015
Dwg. No.	W6

OFF PAVEMENT
150Ø SERVICE BOX
C/W 1.5x1.5x50mm
THICK CONCRETE APRON



PARSONS LONG NECK LID
(NELSON + ROBAR TYPE)



EXTENSION ROD

EXTENSION RODS REQUIRED WHEN
BURY DEPTH EXCEEDS 1.2m FROM
TOP OF VALVE TO GROUND LEVEL
TOP OF EXTENSION ROD NUT SHALL
NOT BE LESS THAN 1.2m BELOW
GROUND LEVEL

CONCRETE TO 21 MPa
IN 28 DAYS

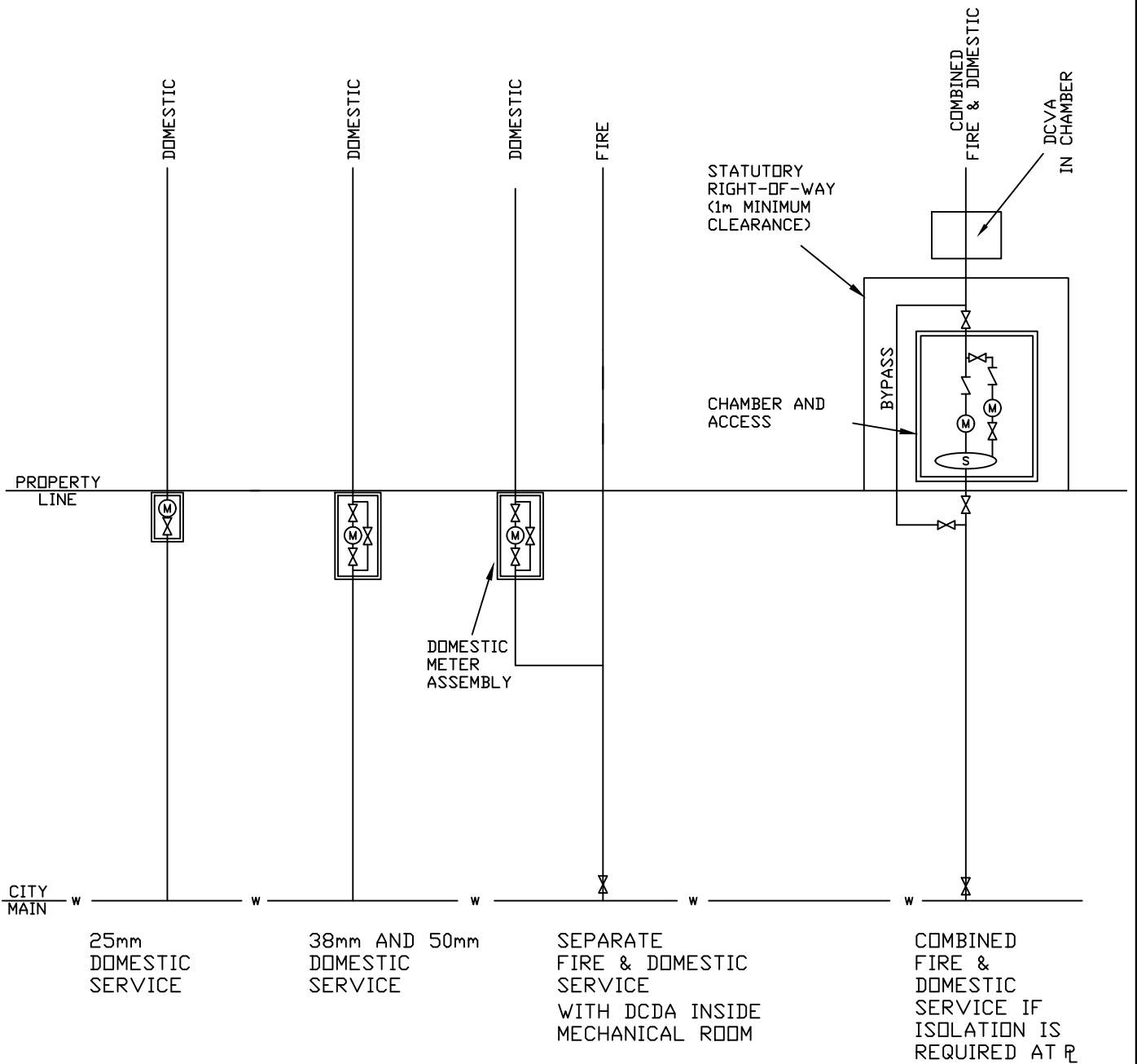
CONCRETE FOOTING
(IF REQUIRED BY ENGINEER)

ASSEMBLY WITH CONCRETE
FOOTING

SECTION OF CONCRETE
FOOTING

NOTES:

1. ONLY PRODUCTS APPROVED BY THE CITY ENGINEER AND LISTED IN THE APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR CONSTRUCTION.
2. VALVE RISER PIPE IN TRAVELED AREAS SHALL BE 150Ø CL. 150 PVC AND IN UNTRAVELED AREAS SHALL BE 150Ø SDR-35 PVC.
3. ALL ROBAR AND NELSON BOX LIDS SHALL BE PARSONS LONG NECK.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

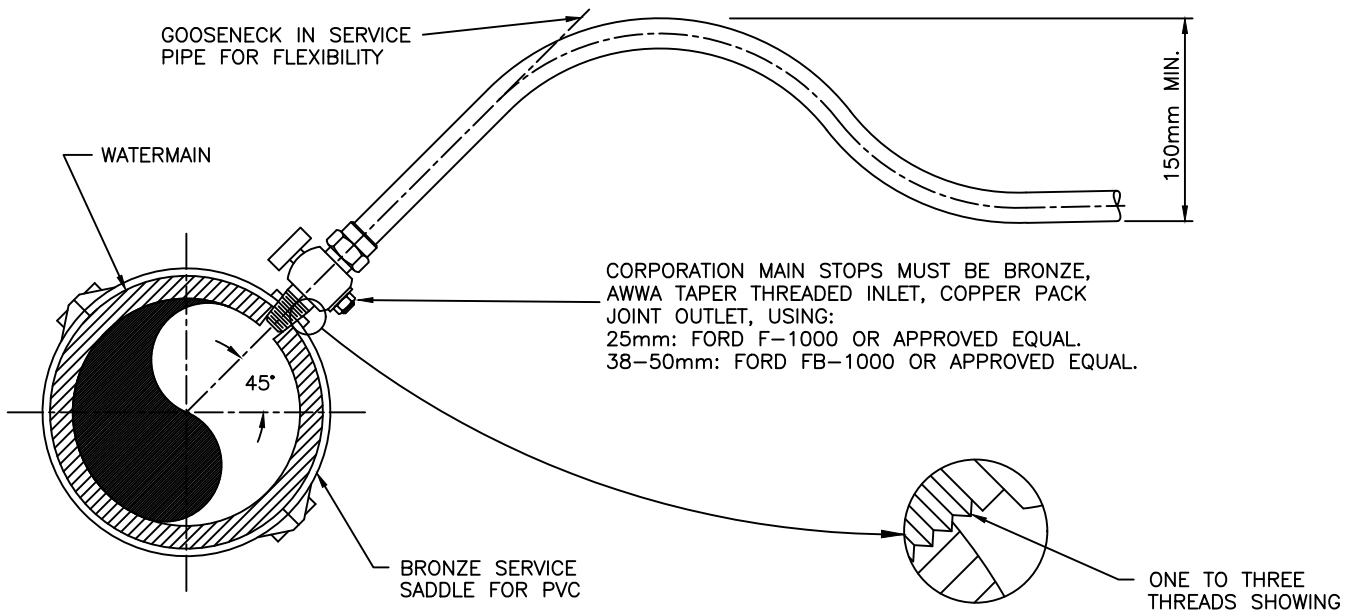
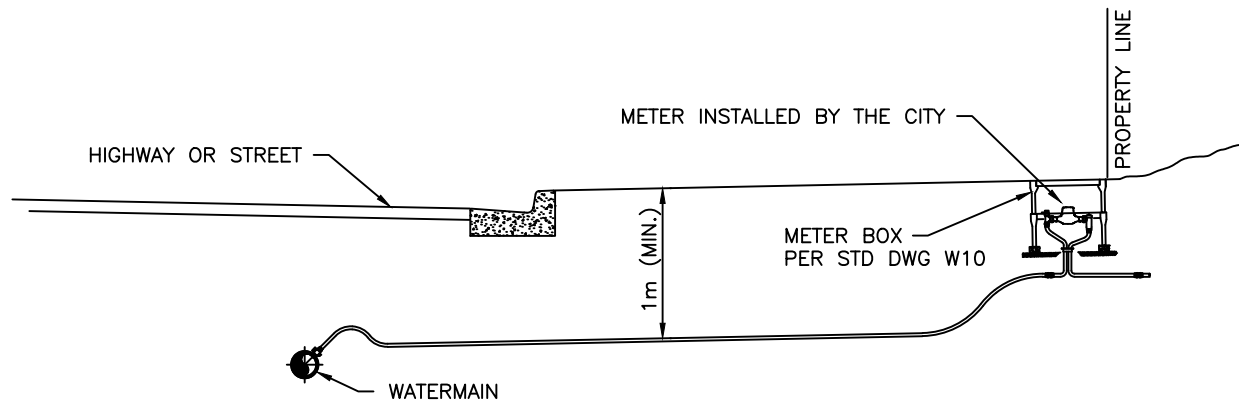


LEGEND	
	SHUT-OFF VALVE
	CHECK VALVE
	METER
	STRAINER WITH MECH. METER

City of
Parksville

TYPICAL WATER SERVICE
CONFIGURATIONS

Scale N.T.S.
 Drawn JTD
 Date: JAN 2015
 Dwg. No. W8



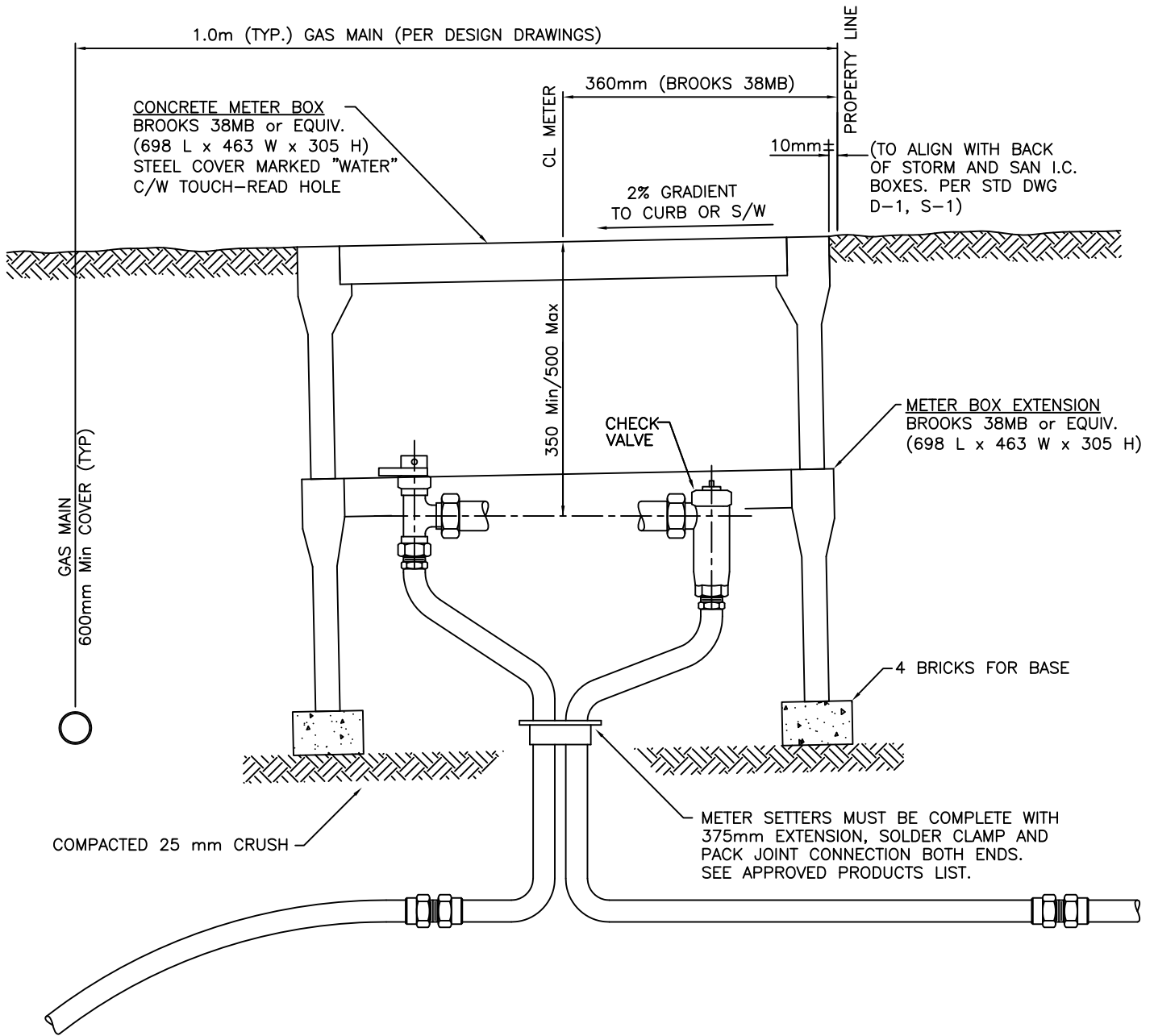
NOTES:

- 1) PROVIDE A GOOSENECK FOR SOME SLACK IN SERVICE PIPE TO ALLOW FOR SLIGHT SUBSIDENCE.
- 2) 25mm SERVICE PIPES MUST BE TYPE 'K' COPPER. 50mm MAY BE POLYETHYLENE TO AWWA C901-08.
- 3) MAXIMUM 2 SERVICES PER PIPE LENGTH.
- 4) DEPTH TO BE 1m MINIMUM.
- 5) ALL DUCTILE IRON (D.I.) MAINS TO BE SADDLED USING ROBAR SERIES 2406DS OR APPROVED EQUAL.
- 6) ALL PVC MAINS TO BE SADDLED USING ROBAR SERIES 2706DS OR APPROVED EQUAL.
- 7) CENTRE TO CENTRE LOCATION OF SERVICE CONNECTIONS TO THE WATERMAIN MUST NOT BE LESS THAN 1m.

City of
Parksville

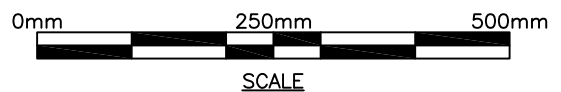
WATER SERVICE CONNECTION
(25mm TO 50mm)

Scale	N.T.S.
Drawn	JTD
Date:	NOV 2017
Dwg. No.	W9



NOTES:

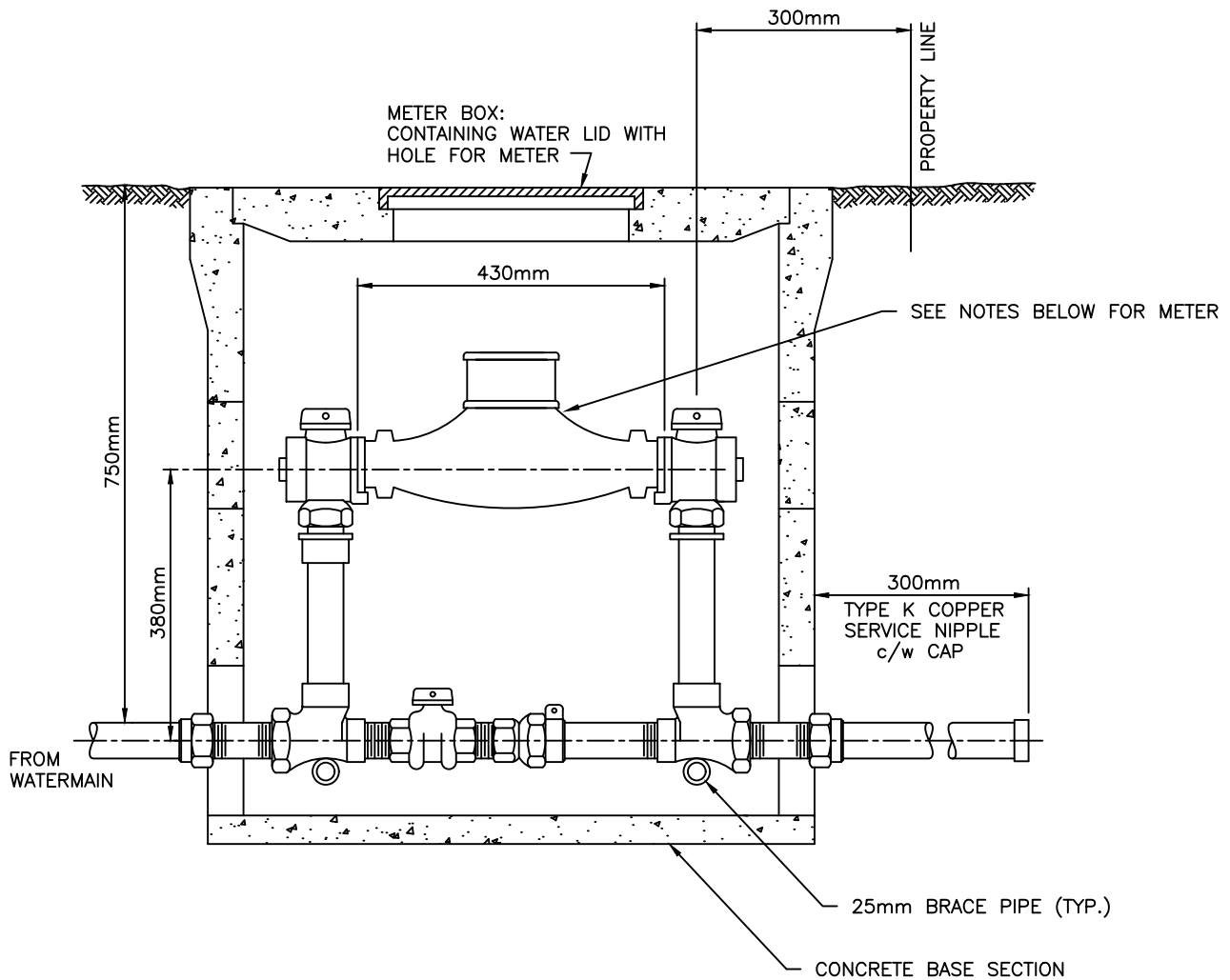
- 1) METER TO BE INSTALLED BY THE CITY OF PARKSVILLE.
- 2) ENSURE CURB STOP IS ACCESSIBLE BY VALVE KEY FROM ABOVE.



City of
Parksville

WATER METER BOXES
(25mm)

Scale	N.T.S.
Drawn	GC
Date:	NOV 2017
Dwg. No.	W10



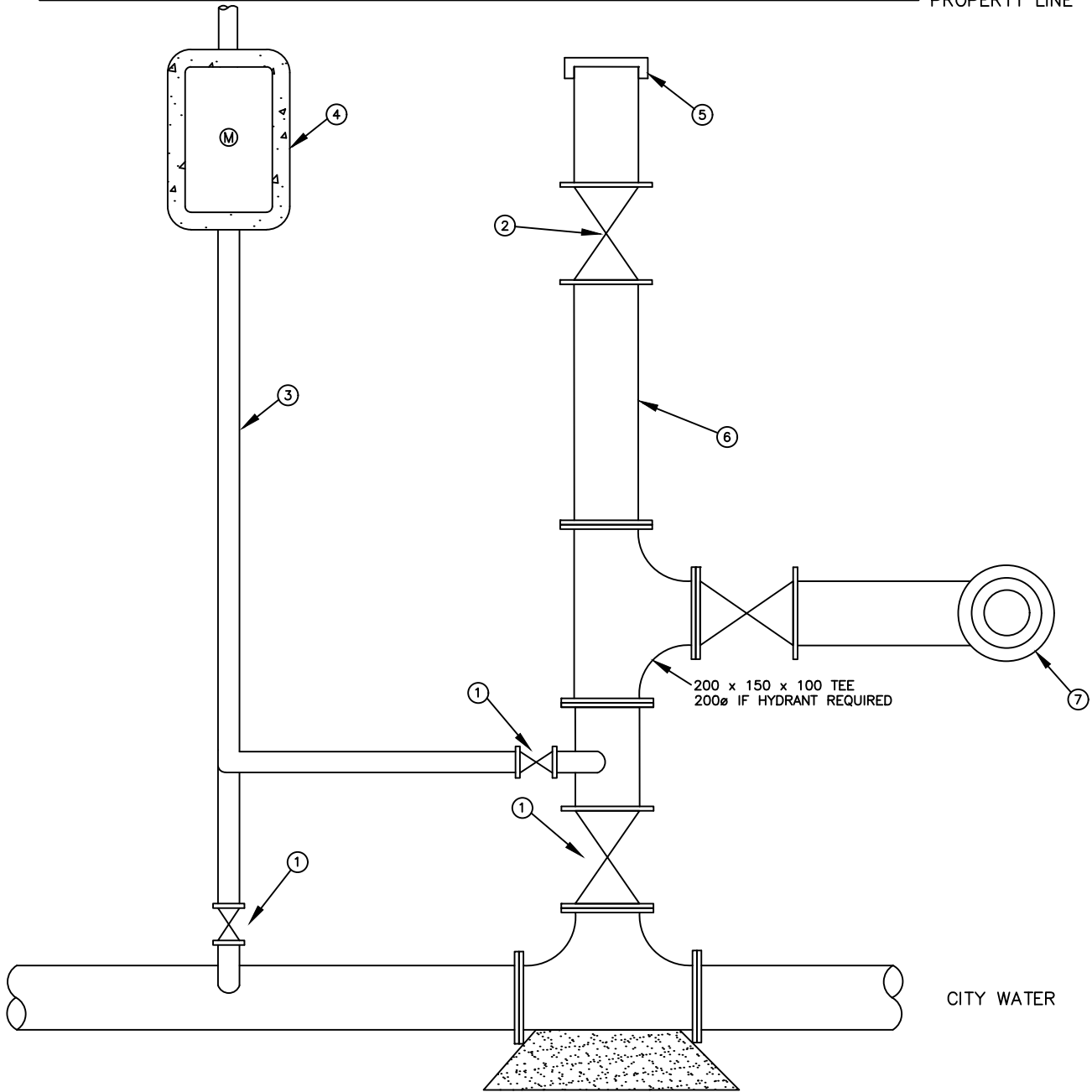
NOTES:

- 1) METER TYPE (E.G. POSITIVE DISPLACEMENT, TURBINE, COMPOUND) AND SIZE TO BE SELECTED BY OWNER'S ENGINEER, BASED ON THE ANTICIPATED FLOW RANGE. CITY STANDARD PER APPROVED PRODUCTS LIST.
- 2) METER TO BE INSTALLED BY THE CONTRACTOR.
- 3) ENSURE THAT CURB STOP IS ACCESSIBLE BY VALVE KEY FROM ABOVE.

City of
Parksville

WATER METER BOXES
(38mm AND 50mm)

Scale	N.T.S.
Drawn	GG
Date:	OCT 2017
Dwg. No.	W11

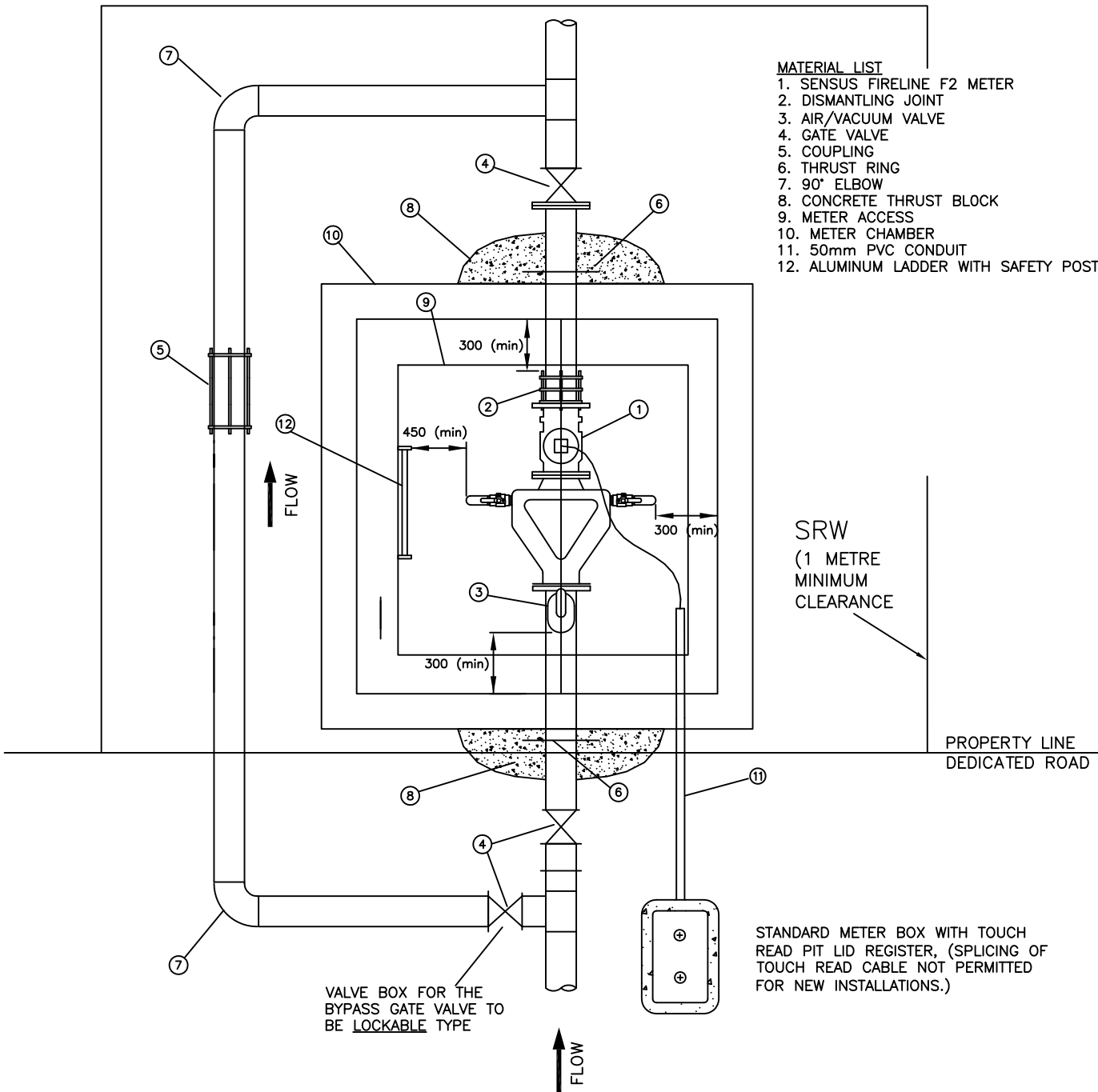


MATERIALS LIST

- ① CORPORATION STOP, 25ø - 50ø NEW LINE GATE VALVE, OVER 50ø
- ② CURB STOP, 25ø - 50ø (IN METER BOX) GATE VALVE, OVER 50ø
- ③ DOMESTIC SERVICE, 25ø - 50ø
- ④ DOMESTIC METER
- ⑤ CAP
- ⑥ FIRE LINE SERVICE
- ⑦ FIRE HYDRANT ASSEMBLY (IF REQUIRED)

NOTES:

1. ONLY PRODUCTS APPROVED BY THE MUNICIPAL ENGINEER MAY BE ACCEPTED FOR INSTALLATION. ONLY UL LISTED & FM APPROVED PRODUCTS SHALL BE USED FOR FIRE LINE SERVICE.
2. THIS STANDARD APPLIES WHERE THE FIRE LINE SERVICE IS 100ø OR LESS AND THERE ARE NO PRIVATE HYDRANTS INSTALLED ON THE SERVICE.
3. THRUST BLOCKING TO BE INSTALLED AS REQUIRED.
4. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



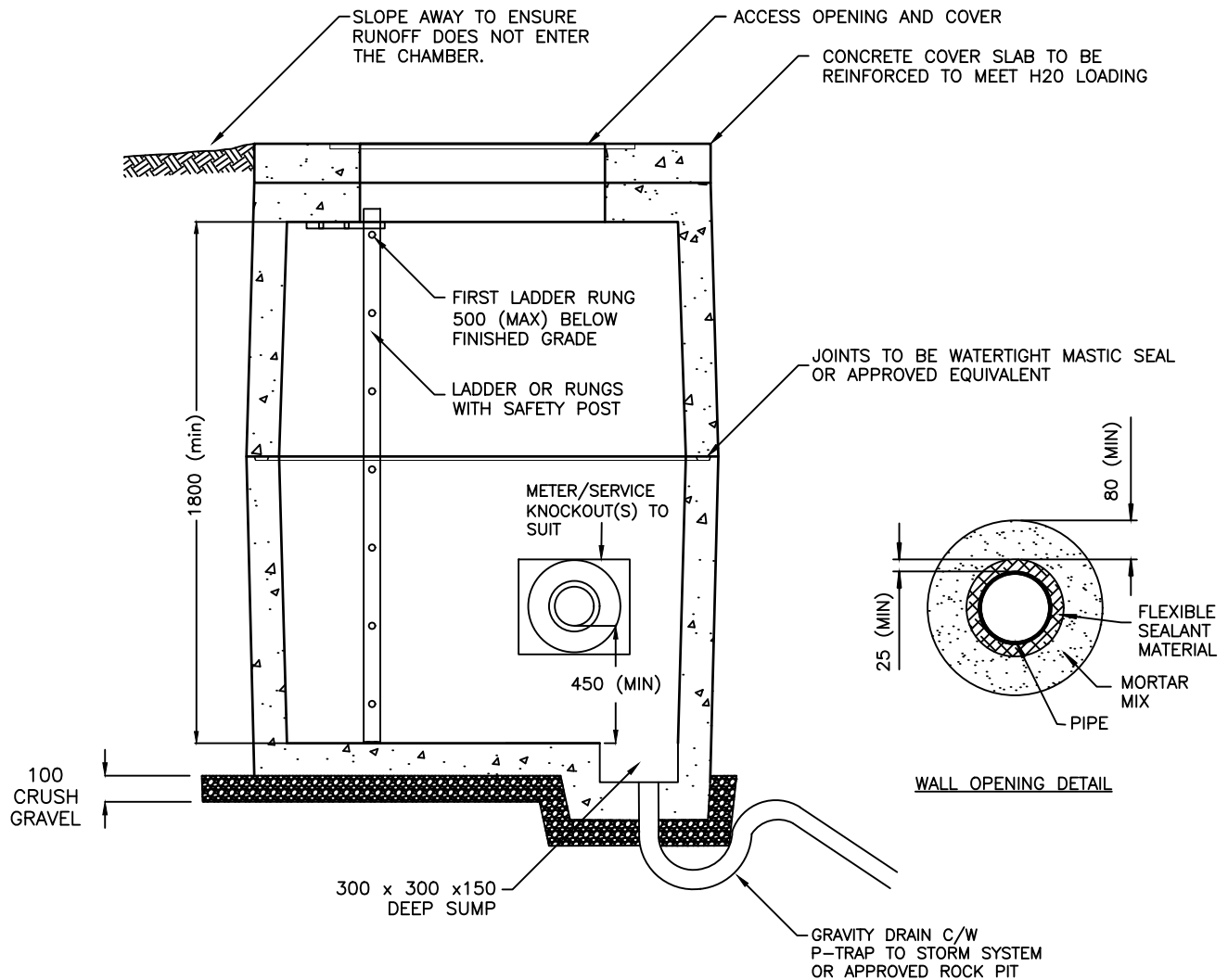
NOTES:

1. ONLY PRODUCTS APPROVED BY THE CITY ENGINEER MAY BE ACCEPTED FOR INSTALLATION. ONLY UL LISTED & FM APPROVED PRODUCTS SHALL BE USED FOR FIRE LINE SERVICES.
2. METER ASSEMBLY TO BE SUPPORTED BY STEEL PIPE SUPPORTS AS REQUIRED (2 min).
3. THRUST BLOCKING TO BE INSTALLED AS REQUIRED.
4. DCVA TO BE INSTALLED IN SEPARATE CHAMBER DOWNSTREAM.
5. ALL BYPASS PIPING, INLET & OUTLET FLANGES AND ASSOCIATED WORKS SHALL HAVE A MINIMUM HORIZONTAL CLEARANCE OF 300mm FROM THE CHAMBER WALLS AND 450mm FROM THE LADDER.

City of
Parksville

COMBINED FIRE/DOMESTIC
WATER SERVICE

Scale	N.T.S.
Drawn	BBS
Date:	JAN 2017
Dwg. No.	W13



NOTES:

1. CHAMBERS MUST BE SIZED TO PROVIDE ALL REQUIRED CLEARANCES, BASED ON ARRANGEMENT OF PIPING, DEVICES, ETC.
2. EXTERIOR WALLS OF CHAMBER TO BE WATER TIGHT AND TAR COATED TO PREVENT LEAKAGE. INSIDE WALLS TO BE PAINTED WITH A WHITE WATER SOLUBLE CEMENT PAINT.
3. CHAMBER FOR FIRELINE METER MUST HAVE ACCESS SIZED AND SITUATED TO PERMIT VERTICAL REMOVAL OF ENTIRE ASSEMBLY WITH NO HORIZONTAL MOVEMENT.
4. FITTINGS TO BE SUPPORTED W/ ADJUSTABLE PIPE STANDS AS REQUIRED (2 min).
5. VERTICAL CLEARANCE (I.E. HEAD SPACE) BETWEEN HIGHEST POINT OF WATER METER AND UNDER SIDE OF VAULT MUST NOT BE LESS THAN 600mm.
6. CHAMBER FLOOR SHALL BE SLOPED (<2% MIN.) AND FITTED WITH A 300mm X 300mm X 100mm DEEP SUMP CONNECTED TO THE STORM SYSTEM OR APPROVED ROCKPIT VIA A GRAVITY DRAIN PIPE C/W P-TRAP.
7. IF 1800mm DEPTH CAN NOT BE ACHIEVED VAULT LID MUST BE LARGE ENOUGH TO ALLOW WORKERS TO STAND ON BOTH SIDES OF METER

City of
Parksville

CHAMBER FOR FIRELINE METER

Scale N.T.S.

Drawn JTD

Date: NOV 2017

Dwg. No. W14