

MINIMUM THICKNESS GUIDE			
SANDY SOIL		CLAY SOIL	
P	THICKNESS	P	THICKNESS
1600mm	100mm		
2100mm	150mm	1500mm	175mm
2400mm	200mm	2400mm	225mm

INSULATION TO BE MINIMUM 100mm THICKNESS

BACKFILLING TO BE CAREFULLY DONE TO PREVENT BREAKING OR CRUSHING THE INSULATION. CRUSHED SHEETS SHALL BE REMOVED AND REPLACED WITH SOUND SHEETS

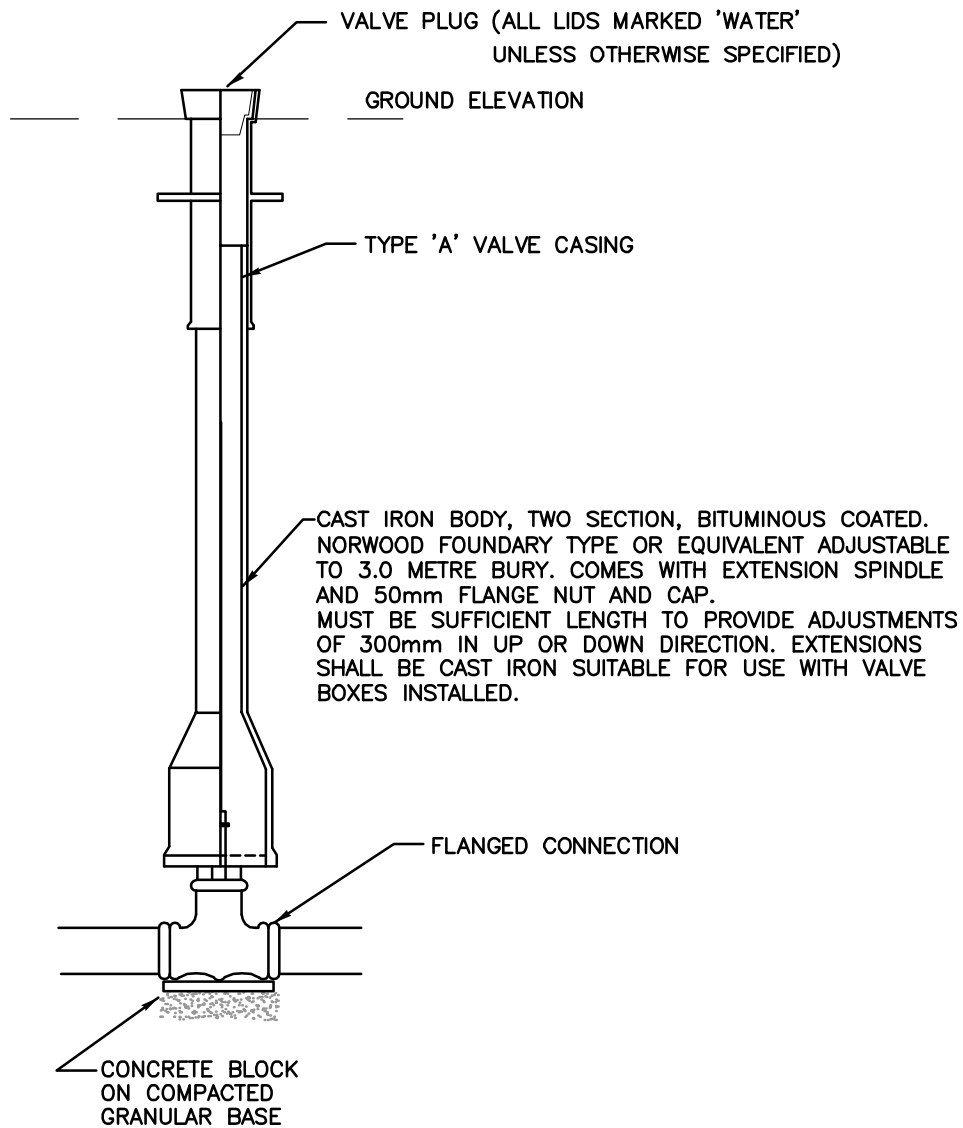
NOTE:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.		#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	INSULATION REQUIREMENTS FOR WATER MAINS / SERVICES	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-01
Date: 2009-04-16	Drawn: T.L.B.	Scale NTS		




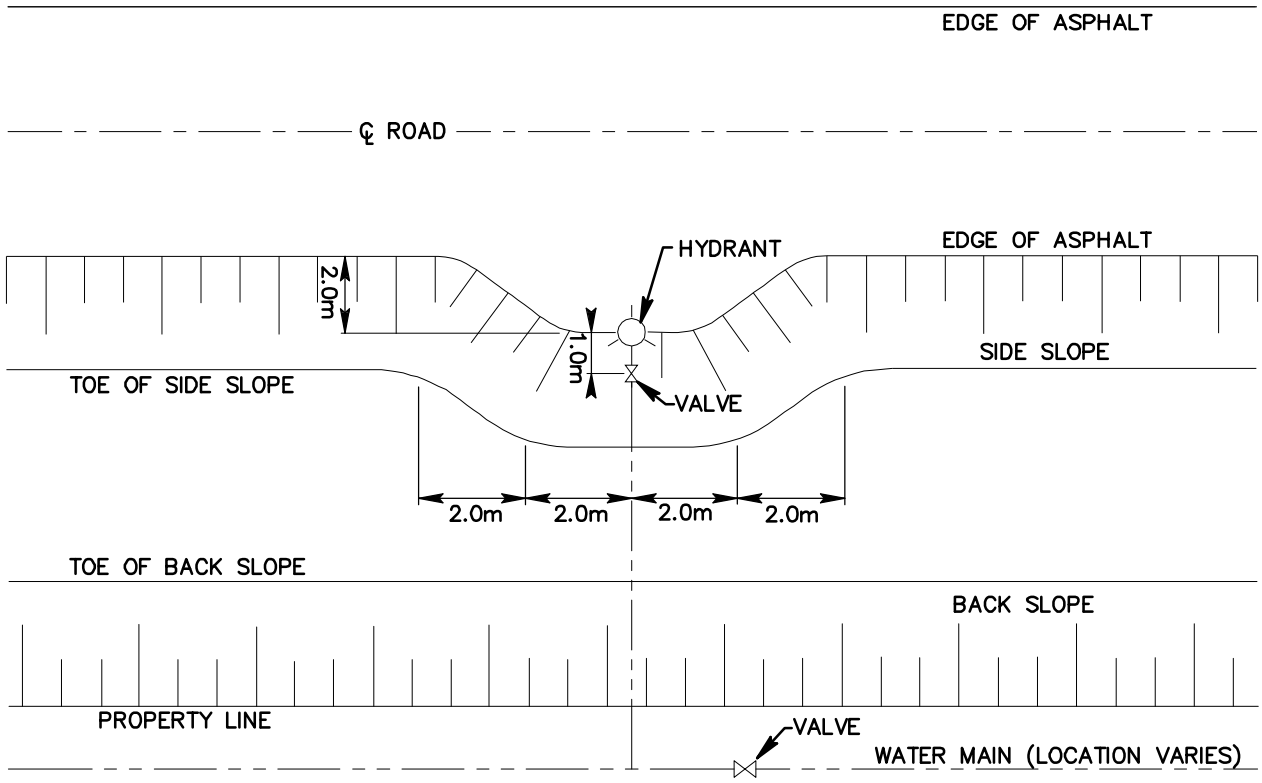
- NOTES:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPE 'A' - VALVE CASTING DETAIL	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-02
Date: 2008-12-22	Drawn: T.L.B.	Scale NTS		




NOTES:

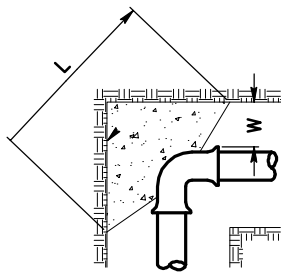
1. ALL DIMENSIONS IN METRES UNLESS OTHERWISE NOTED.
2. WATER MAIN AND HYDRANTS MAY BE LOCATED EITHER SIDE OF ROAD.
3. STREET LIGHTS TO BE OPPOSITE SIDE OF WATERMAIN.
4. NOT GENERALLY APPLICABLE IN PEACE RIVER. TO BE USED ONLY WHEN DIRECTED BY MUNICIPALITY.

TOWN OF PEACE RIVER

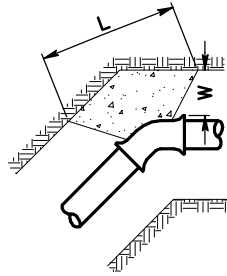
General Municipal Servicing Standards



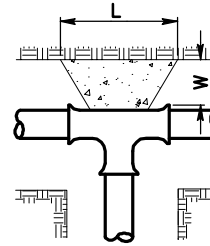
Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL SHOULDER WIDENING FOR FIRE HYDRANT-RURAL STANDARD	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-03
Date: 2009-01-16	Drawn: T.L.B.	Scale NTS		



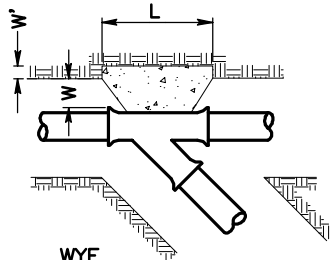
HORIZONTAL 90° BEND



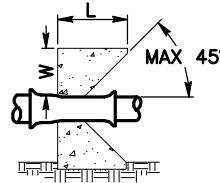
HORIZONTAL 45° BEND



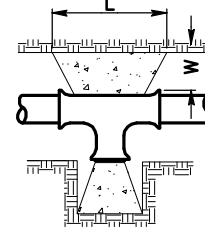
TEE



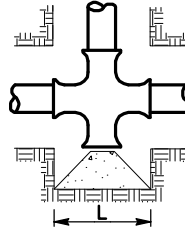
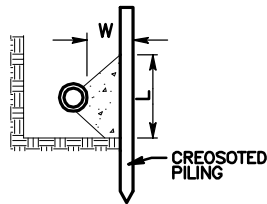
WYE



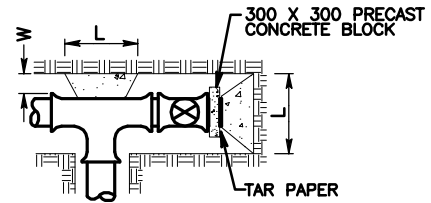
REDUCER



TEE WITH PLUG



CROSS WITH PLUG



TEE WITH VALVE

MINIMUM THRUST AREAS FOR FITTINGS AT 1035 kPa PRESSURE AND FOR SOILS WITH MINIMUM BEARING OF 9765 kg/m (NOT TO BE USED FOR SOFT CLAY, MUCK, PEAT, etc.)																	
TYPE OF FITTING	FITTING SIZE	OUTSIDE OF FITTING TO BEARING FACE		RECESS IN TRENCH WALL		LENGTH	HEIGHT	TYPE OF FITTING	FITTING SIZE	OUTSIDE OF FITTING TO BEARING FACE		RECESS IN TRENCH WALL		LENGTH	HEIGHT		
		D	W	W'	W'					D	W	W'	W'				
90° BEND	150	300		900	450	CROSS	150	300		600	450	CROSS	150	300		600	450
	200	350		1060	600		200	350		825	600		200	350		825	600
	250	375		1445	750		250	375		975	825		250	375		975	825
	300	400		1650	900		300	400		1200	900		300	400		1200	900
45° BEND	150	300		450	450	45° WYE	150	300	300	450	450	45° WYE	150	300	300	450	450
	200	350		600	600		200	350	400	600	600		200	350	400	600	600
	250	375		750	750		250	375	500	825	825		250	375	500	825	825
	300	400		900	900		300	400	600	900	900		300	400	600	900	900
22.5° BEND	150	300		450	230	REDUCER	150	300	150	450	450	REDUCER	150	300	150	450	450
	200	350		600	300		200	350	200	600	600		200	350	200	600	600
	250	375		750	450		250	375	250	825	825		250	375	250	825	825
	300	400		900	450		300	400	300	900	900		300	400	300	900	900
TEE	150	300		450	450	CAPS AND PLUGS (IF NOT BOLTED)	150	300		450	450	CAPS AND PLUGS (IF NOT BOLTED)	150	300		450	450
	200	350		600	600		200	350		600	600		200	350		600	600
	250	375		750	825		250	375		825	825		250	375		825	825
	300	400		900	900		300	400		900	900		300	400		900	900

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.
3. WHERE GROUND CANNOT BE EXCAVATED TO FREE STANDING UNDISTURBED SOIL, A SMALL PLANK SHEET PILING SHALL BE DRIVEN TO PROVIDE UNDISTURBED THRUST AREA. THE PILING IS TO BE DRIVEN PRIOR TO EXCAVATION FOR THRUST BLOCK. THE PILING SHOULD BE USED ONLY BELOW THE PERMANENT WATER TABLE.

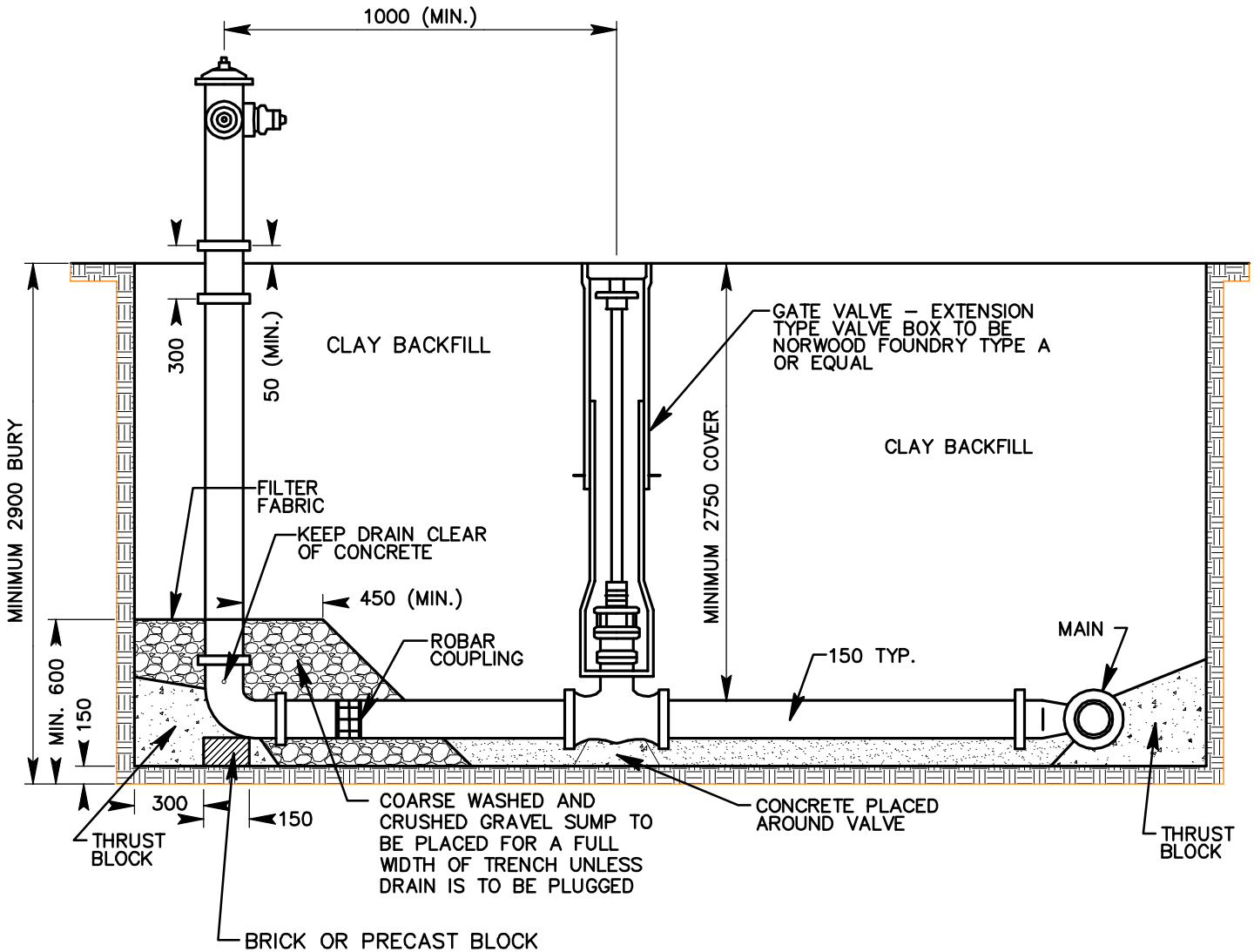
DIMENSIONS APPLY TO THE LARGER DIAMETER END OF FITTINGS

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.		#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	THRUST BLOCK DETAILS	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-04
Date: 2009-04-16	Drawn: T.S.	Scale NTS		



NOTES:

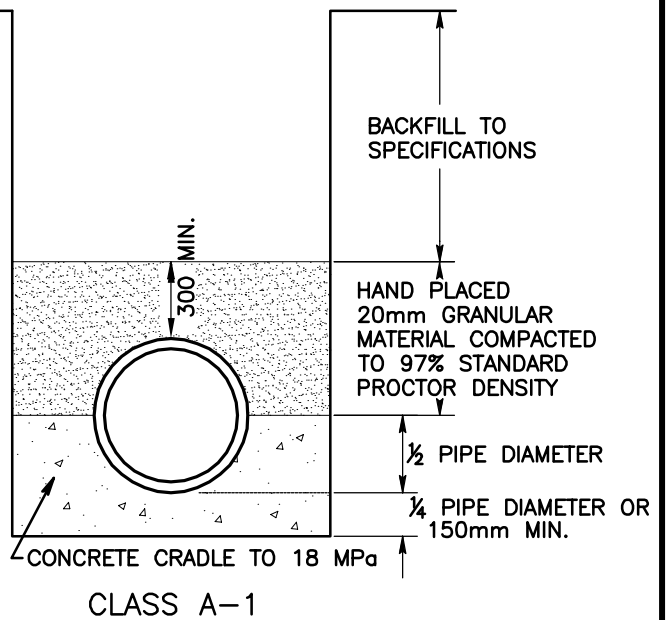
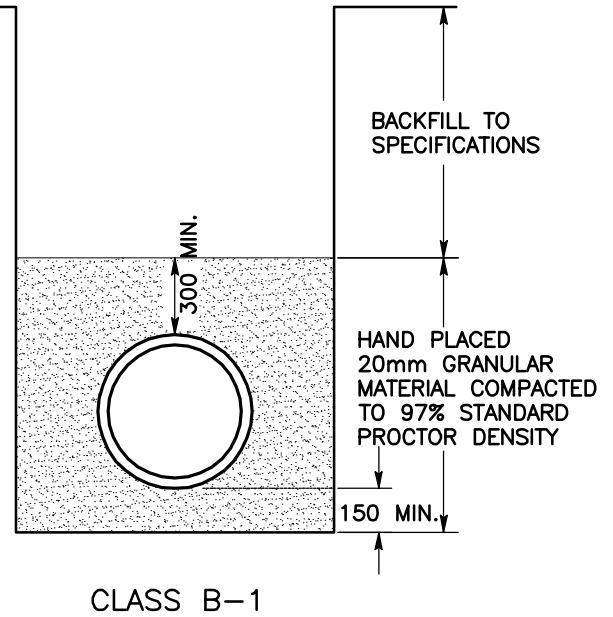
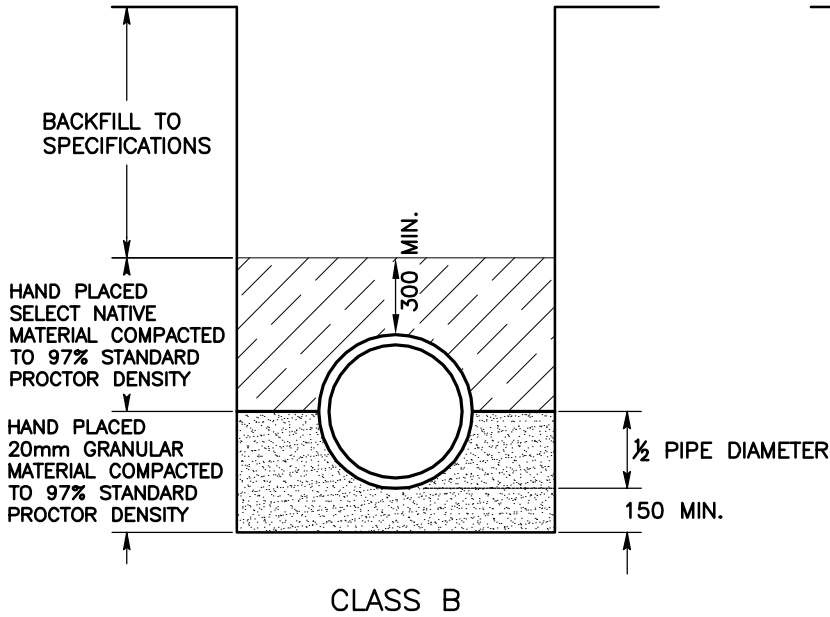
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.
3. HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH UTILITY DEPARTMENT SPECIFICATIONS.
4. 150mm FIRE HYDRANT OF APPROVED MAKE, AUTOMATIC SELF DRAINING c/w PUMPER NOZZLE.
5. WHERE WATER TABLE IS ABOVE BOTTOM OF HYDRANT, DRAIN SHALL BE PLUGGED.
6. SEE DRAWING D-28 FOR FURTHER DETAILS.
7. MECHANICAL RESTRAINTS SHOULD BE USED ON EVERY METAL TO PLASTIC PIPE JOINT CONNECTION.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	<h2>HYDRANT CONNECTION</h2>	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-05
Date: 2009-04-16	Drawn: T.S.	Scale NTS		




NOTES:

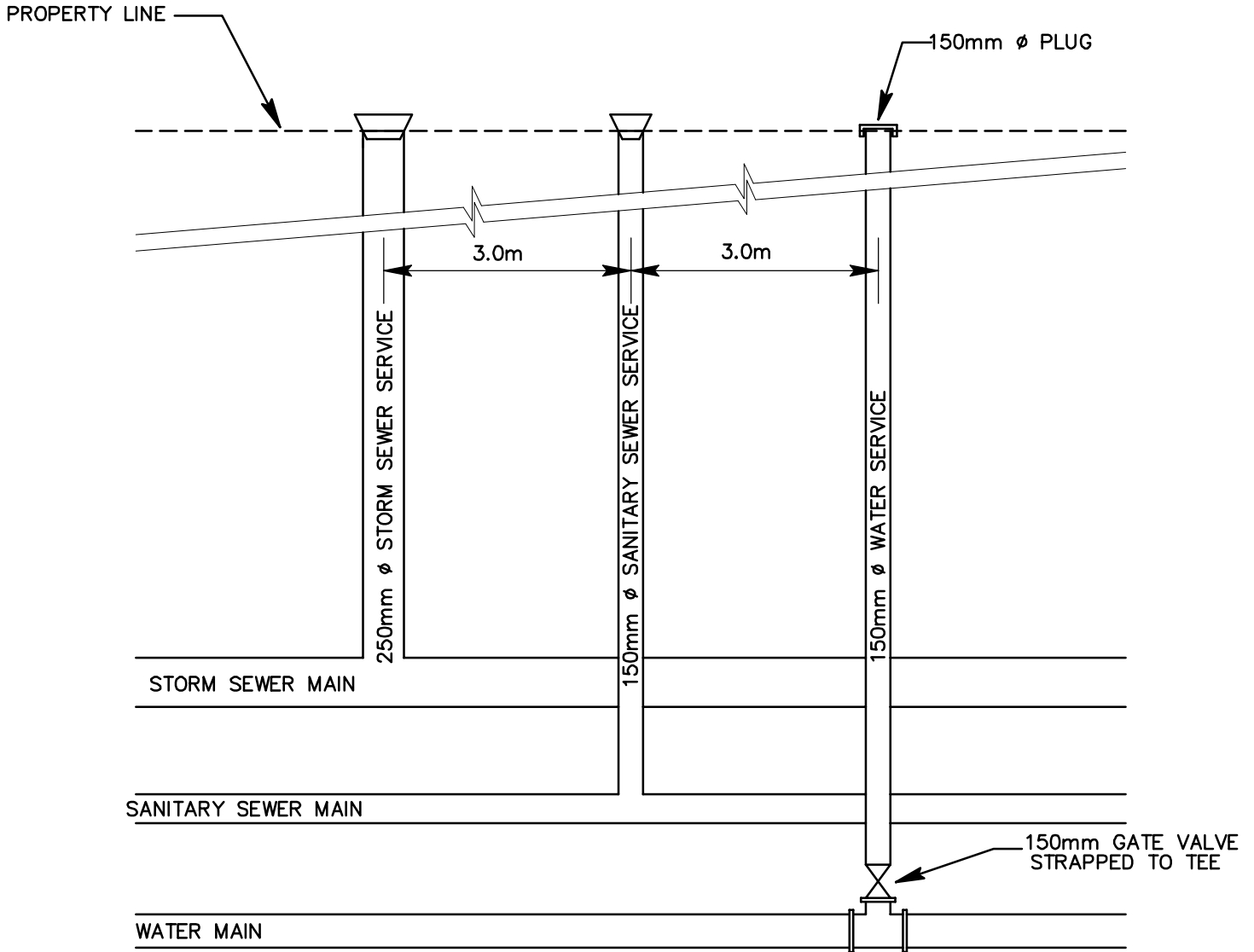
1. SAND MAY BE ALLOWED ON PIPE SIZES LESS OR EQUAL TO 375mm DIAMETER.
2. WITHIN THE PIPE ZONE:
MINIMUM TRENCH WIDTH - PIPE DIAMETER + 600mm.
MAXIMUM TRENCH WIDTH - PIPE DIAMETER + 1000mm.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
4. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.
5. WASHED ROCK MAY BE REQUIRED IF WATER TABLE IS ABOVE PIPE ZONE.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	BEDDING DETAIL	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-06
Date: 2009-04-16	Drawn: T.S.	Scale NTS		



PLAN VIEW


NOTES:

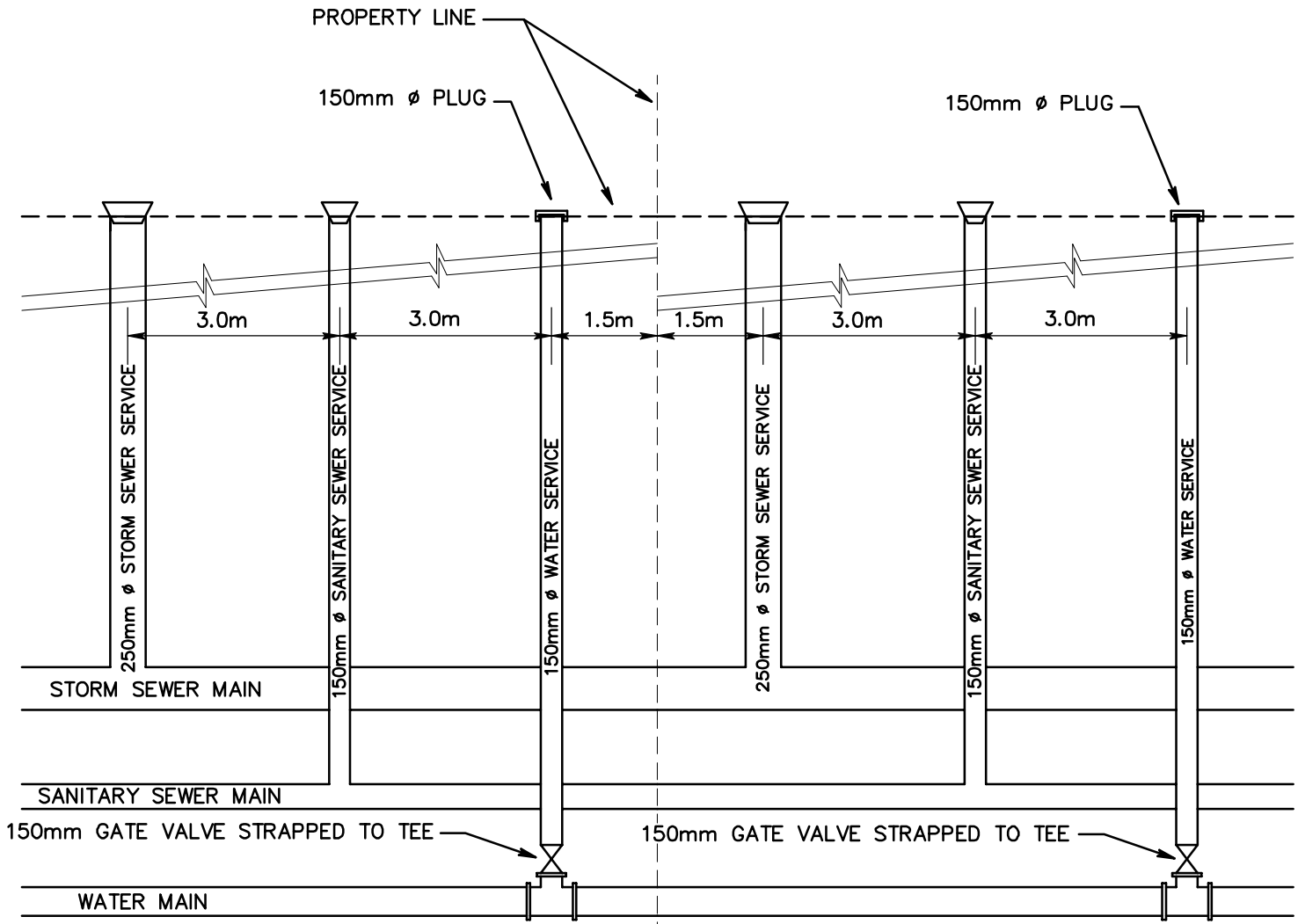
- 1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- 2. SERVICES MAY BE EXTENDED INTO PRIVATE PROPERTY TO THE EDGE OF GAS EASEMENT (SEE FIGURE E-12 FOR DETAILS).

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL SINGLE SERVICE FOR COMMERCIAL LOT	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure
Date: 2009-04-16	Drawn: T.S.	Scale NTS		



PLAN VIEW


NOTES:

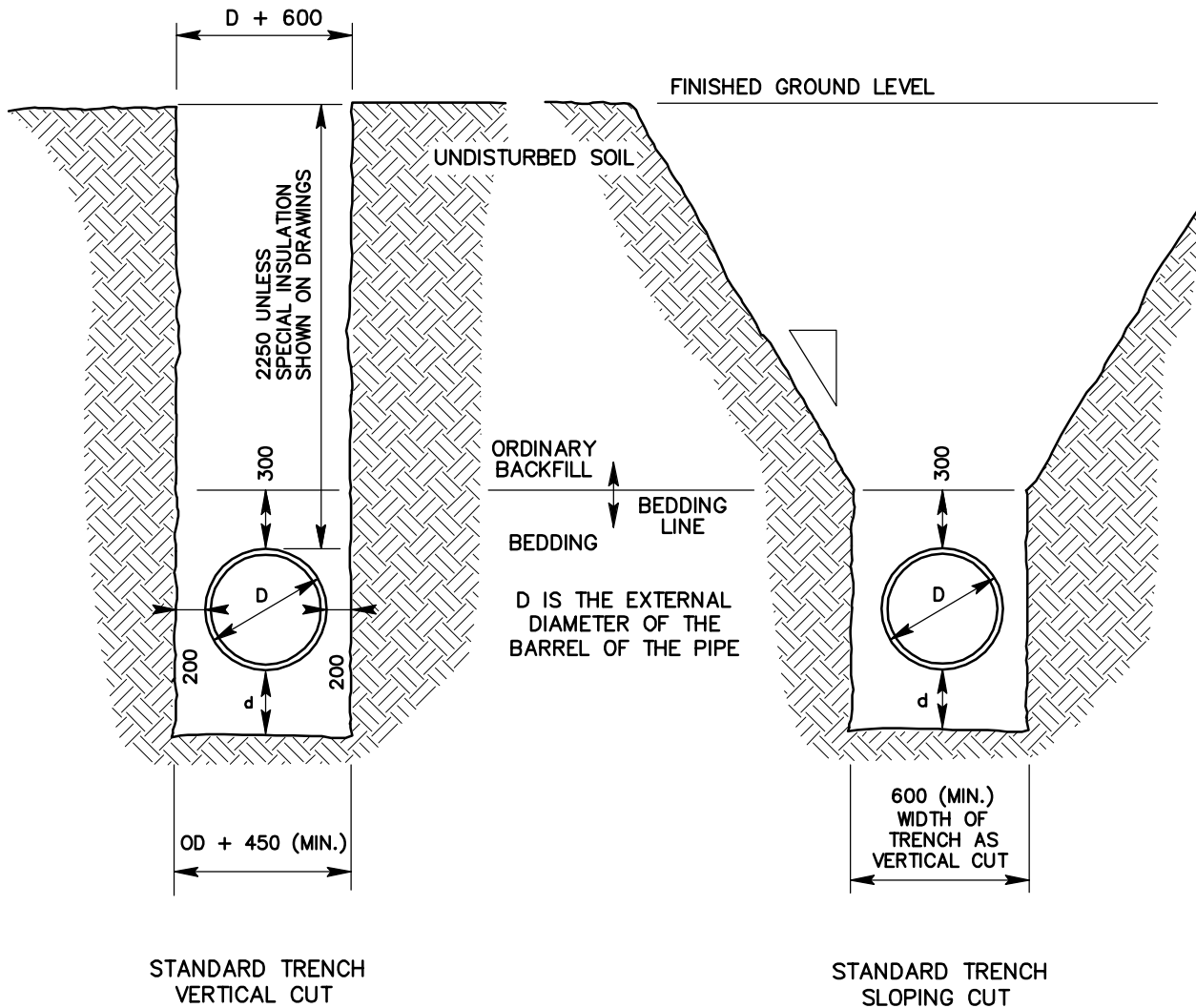
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. SERVICES MAY BE EXTENDED INTO PRIVATE PROPERTY TO THE EDGE OF GAS EASEMENT (SEE FIGURE E-12 FOR DETAILS).

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL DUAL SERVICE FOR COMMERCIAL LOT	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure
Date: 2009-04-16	Drawn: JAD	Scale: NTS		



(ALL EXCAVATIONS TO BE SLOPED OR SHORED AS PER OCCUPATIONAL HEALTH AND SAFETY STANDARDS)

MAXIMUM TRENCH WIDTHS FOR SINGLE PIPES

1000mm – UP TO AND INCLUDING 400mm DIAMETER PIPE
 600mm + OD – >400mm DIAMETER PIPE

DEPTH OF BEDDING BELOW PIPE BARREL (d)

75mm – EXTERNAL DIAMETER OF 700mm AND BELOW
 100mm – EXTERNAL DIAMETER GREATER THAN 700mm

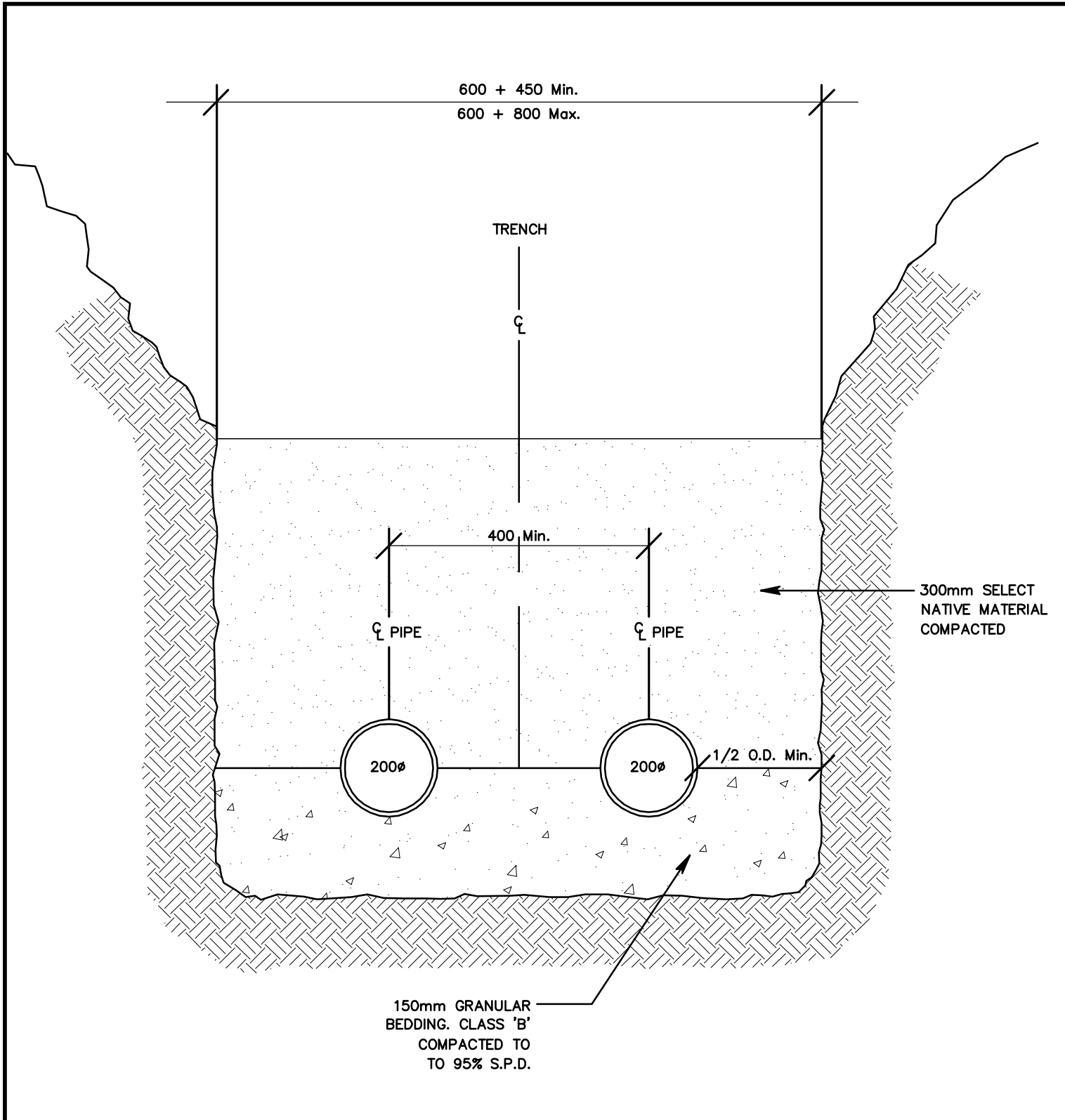
NOTE:
 1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	STANDARD TRENCH DIMENSIONS FOR CIRCULAR PIPE	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-09A
Date: 2009-04-16	Drawn: JAD	Scale: NTS		



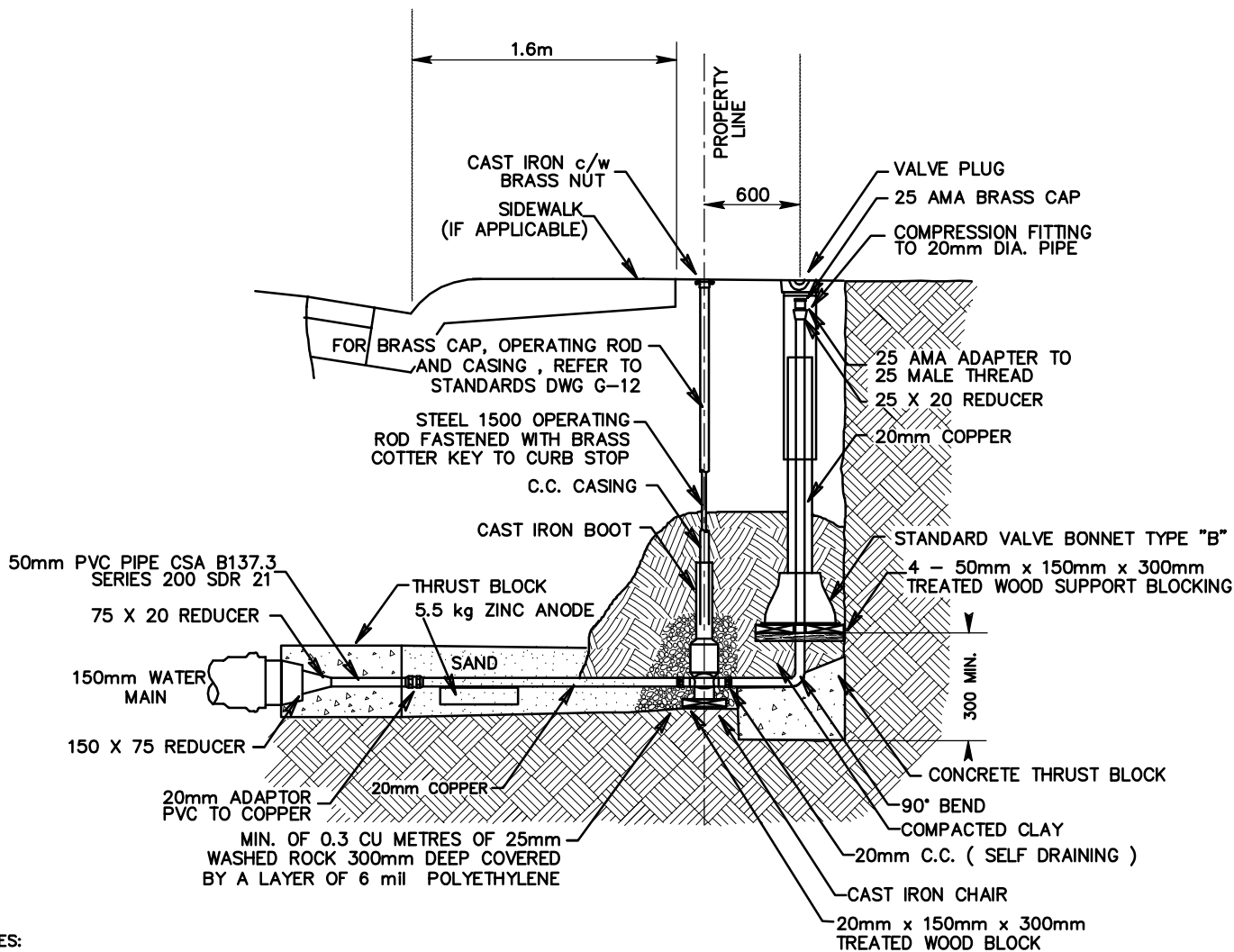
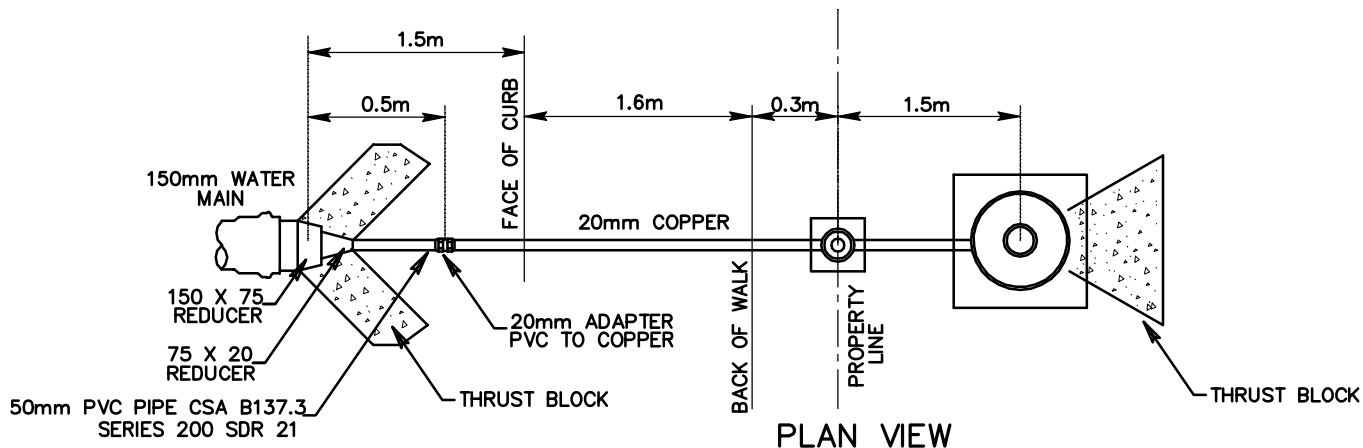
NOTE:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	PIPE INSTALLED IN COMMON TRENCH	
Rev.			Approved: _____	
Rev.				
Date: 2009-04-16	File No.: GP6033068	Design:	Figure D-09B	
	Drawn: JAD	Scale: NTS		



- NOTES:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	
Rev.	
Rev.	
Rev.	
Date:	2009-04-16



#99, 11039 78th Avenue
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780.814.5880

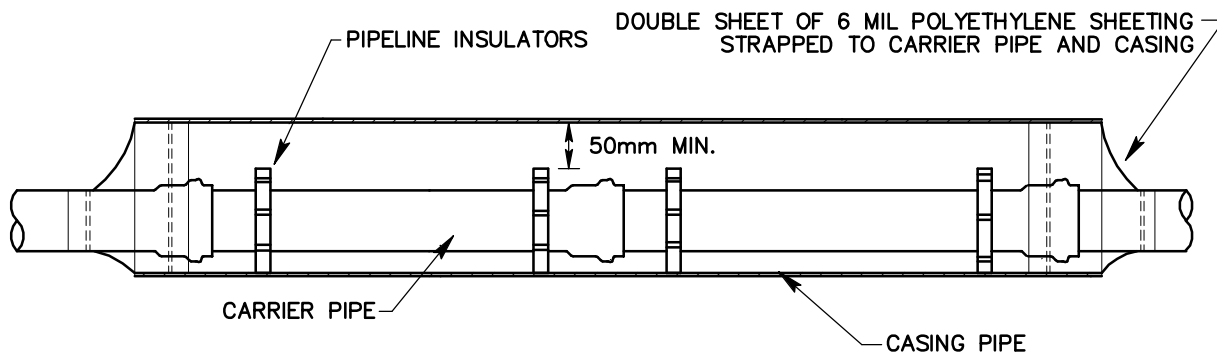
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Drawn: JAD

Design:
Scale NTS

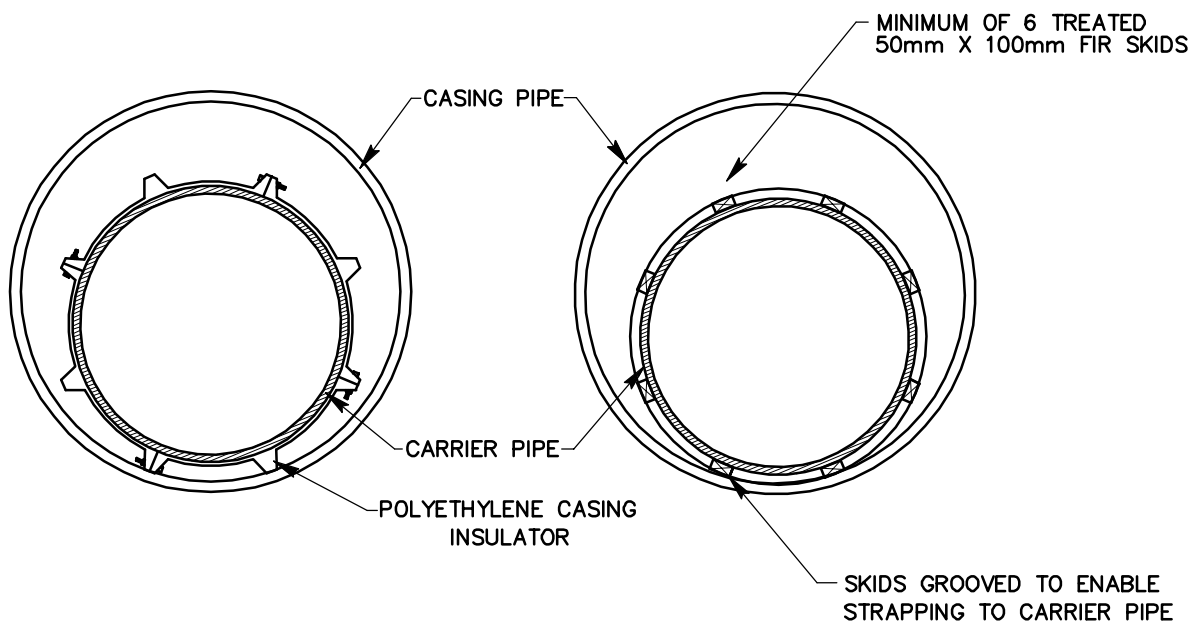
FLUSH POINT DETAIL

Approved:

Figure D-10



ELEVATION



SECTION


NOTES:

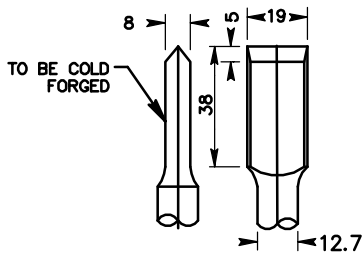
1. CASING MATERIAL AND THICKNESS TO BE AS SPECIFIED ON CONSTRUCTION DRAWINGS.
2. INSULATOR SPACING TO BE DETERMINED BY THE MATERIAL AND JOINT TYPE OF CARRIER PIPE BEING USED.
3. CASING COATING AND CATHODIC PROTECTION REQUIREMENTS TO BE AS SPECIFIED ON CONSTRUCTION DRAWINGS.
4. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

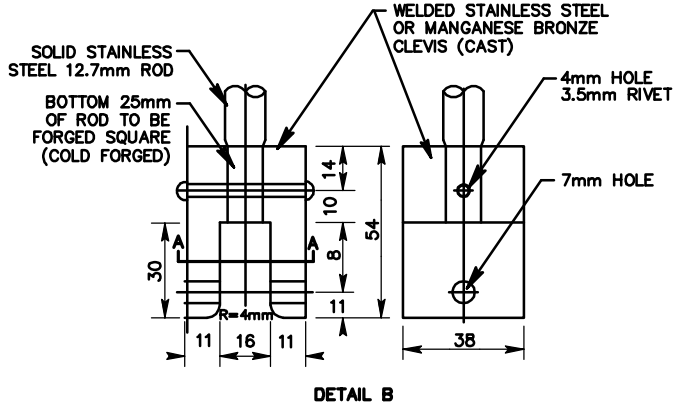
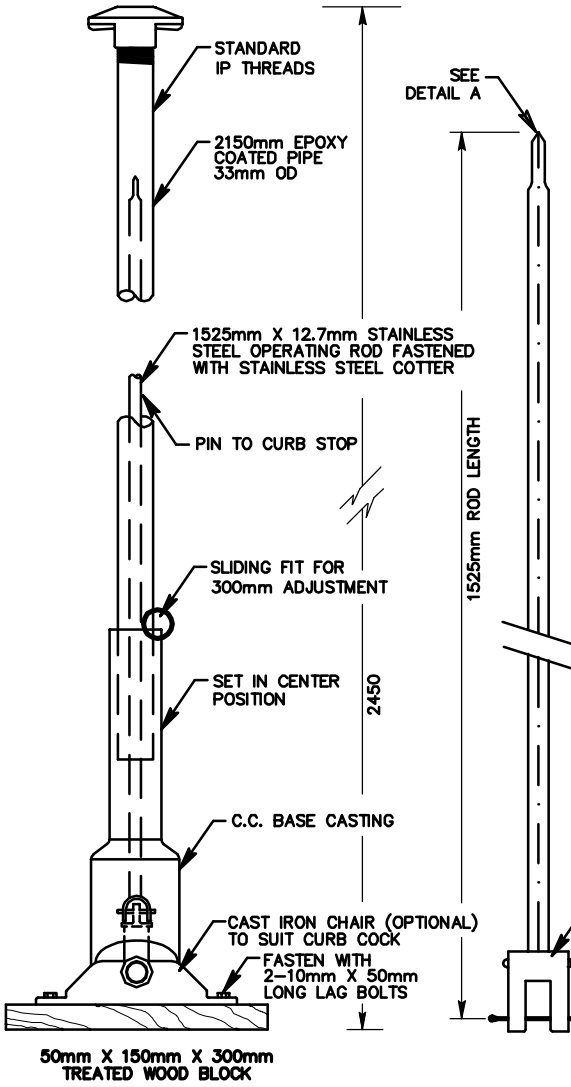
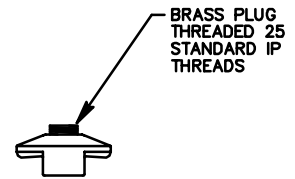
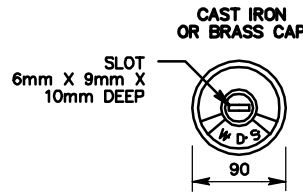
General Municipal Servicing Standards



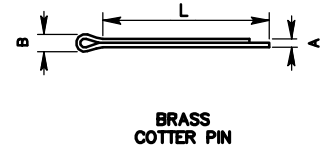
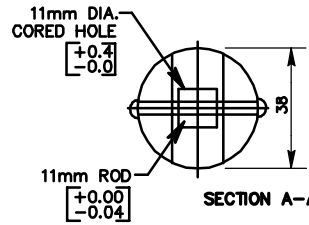
Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL CASING PIPE WITH INSULATOR	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-11
Date: 2009-04-16	Drawn: JAD	Scale NTS		



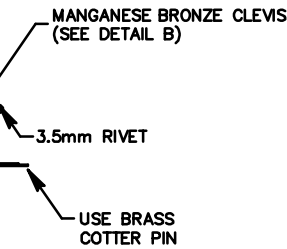
DETAIL A



DETAIL B



COTTER PIN					
NOMINAL DIAMETER	DIAMETER A		OUTSIDE EYE DIAMETER B MINIMUM	HOLE SIZE RECOMMENDED	LENGTH L
	MAX.	MIN.			
6.35mm	5.7mm	5.6mm	12.7mm	6.7mm	55mm



NOTES:

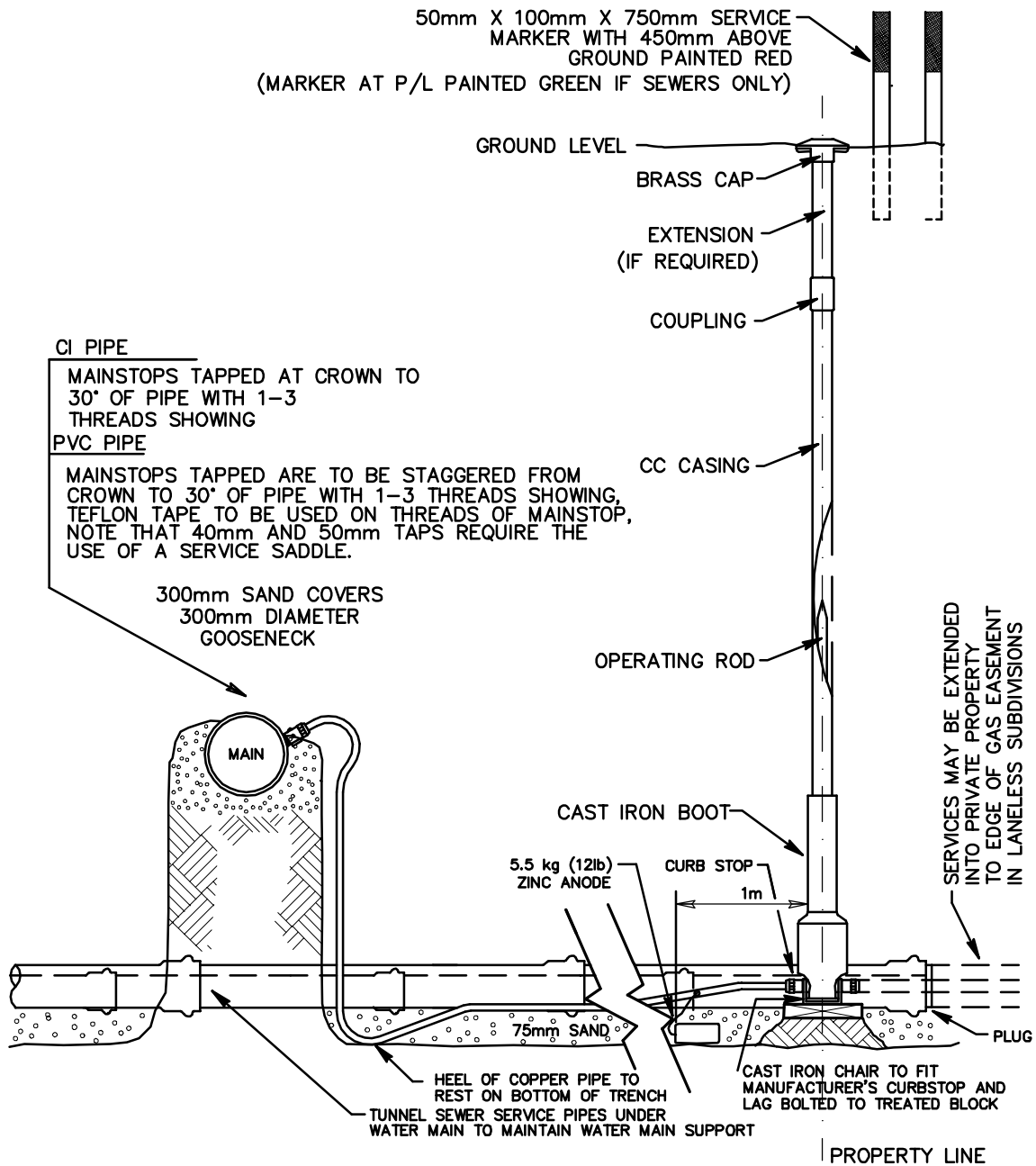
- OPERATING ROD SHALL BE SUPPLIED AS A SINGLE UNIT COMPRISED OF A SOLID STAINLESS STEEL ROD, (A.S.T.M. 8554 - 94) ATTACHED TO A WELDED STAINLESS STEEL OR MANGANESE BRONZE CLEVIS WITH A STAINLESS STEEL RIVET.
- THE MANUFACTURER'S NAME SHALL BE EMBOSSED ONTO THE CLEVIS.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.		#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	SERVICE BOX DETAIL 50mm & SMALLER WATER SERVICE		
Rev.			File No.: GP6033068	Design:	Approved:
Rev.			Date: 2009-04-16	Drawn: TLB	Scale: NTS




NOTES:

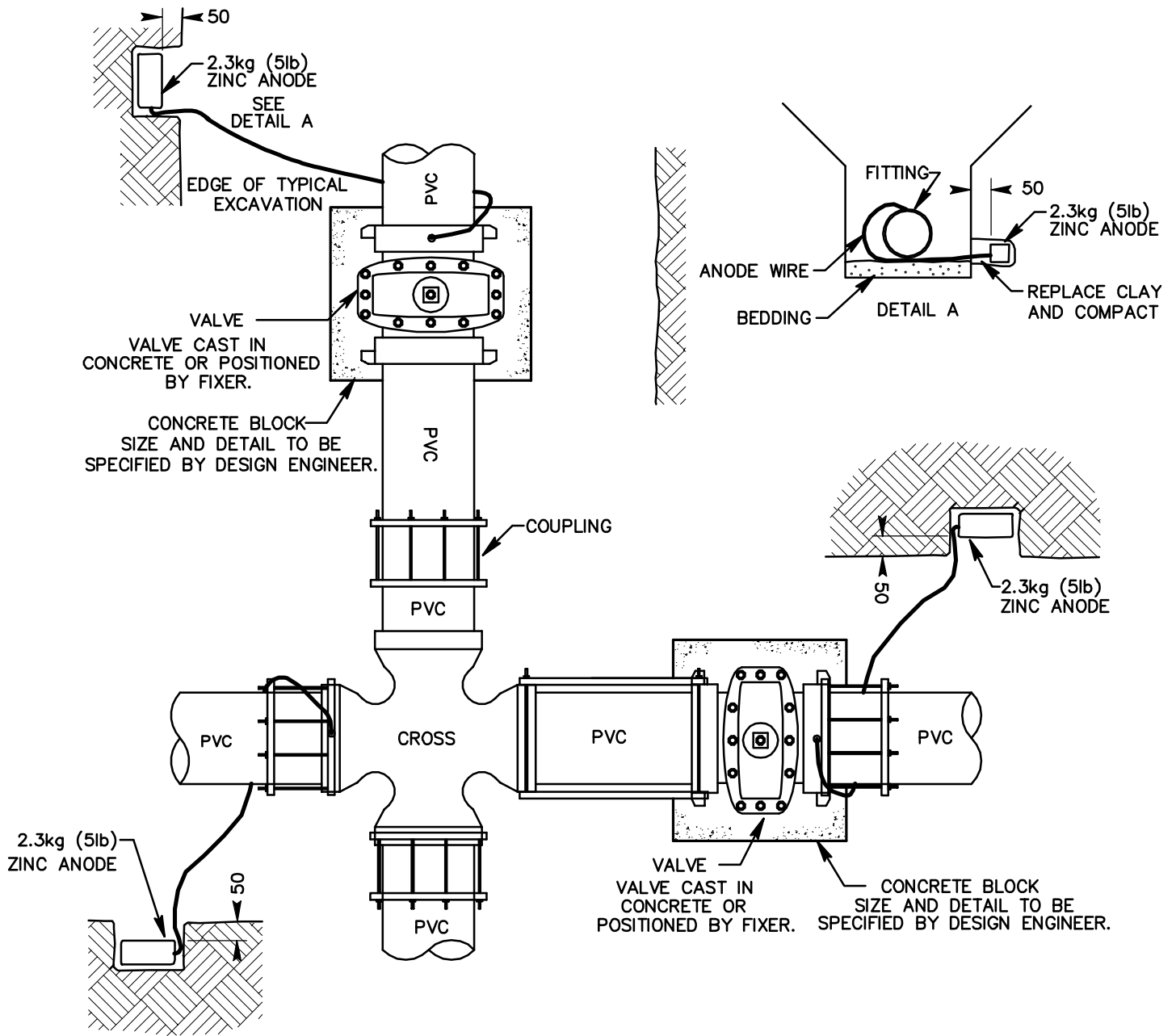
1. AN ADDITIONAL GOOSENECK IS REQUIRED AT EACH SEWER CROSSING.
2. MAINSTOP TAPS SHALL BE A MINIMUM OF 600mm APART, AND NO LESS THAN 300mm FROM A COUPLING OR COLLAR.
3. COPPER SERVICE PIPE SHALL BE ONE CONTINUOUS PIECE, SHOULD LENGTH EXCEED 20m, A DOUBLE UNION WILL BE ALLOWED. SIZE OF COPPER SERVICE MUST BE 25mm MIN. IF LENGTH OF SERVICE EXCEEDS 20m.
4. INVERT ELEV. OF WATER SERVICE PIPES AT P/L SHALL BE 2.59m BELOW ESTABLISHED FINISHED GRADE.
5. WHERE ENGINEER APPROVED COVER OVER WATER SERVICE TO BE LESS THAN 2.59m SERVICE IS TO BE INSULATED.
6. ZINC ANODE SHALL BE ATTACHED TO COPPER PIPE 1.0m FROM CC WITH AN ALL BRONZE (INCLUDING NUTS AND BOLTS) CLAMP OR APPROVED EQUIVALENT.
7. ZINC ANODE TO BE EMBEDDED INTO TRENCH WALL TO PROVIDE FOR MIN. 50mm OF NATIVE CLAY SURROUNDING ANODE.
8. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL 50mm & SMALLER WATER SERVICE FOR 300mm & SMALLER WATER MAINS	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-13
Date: 2009-04-16	Drawn: TLB	Scale NTS		



NOTES:

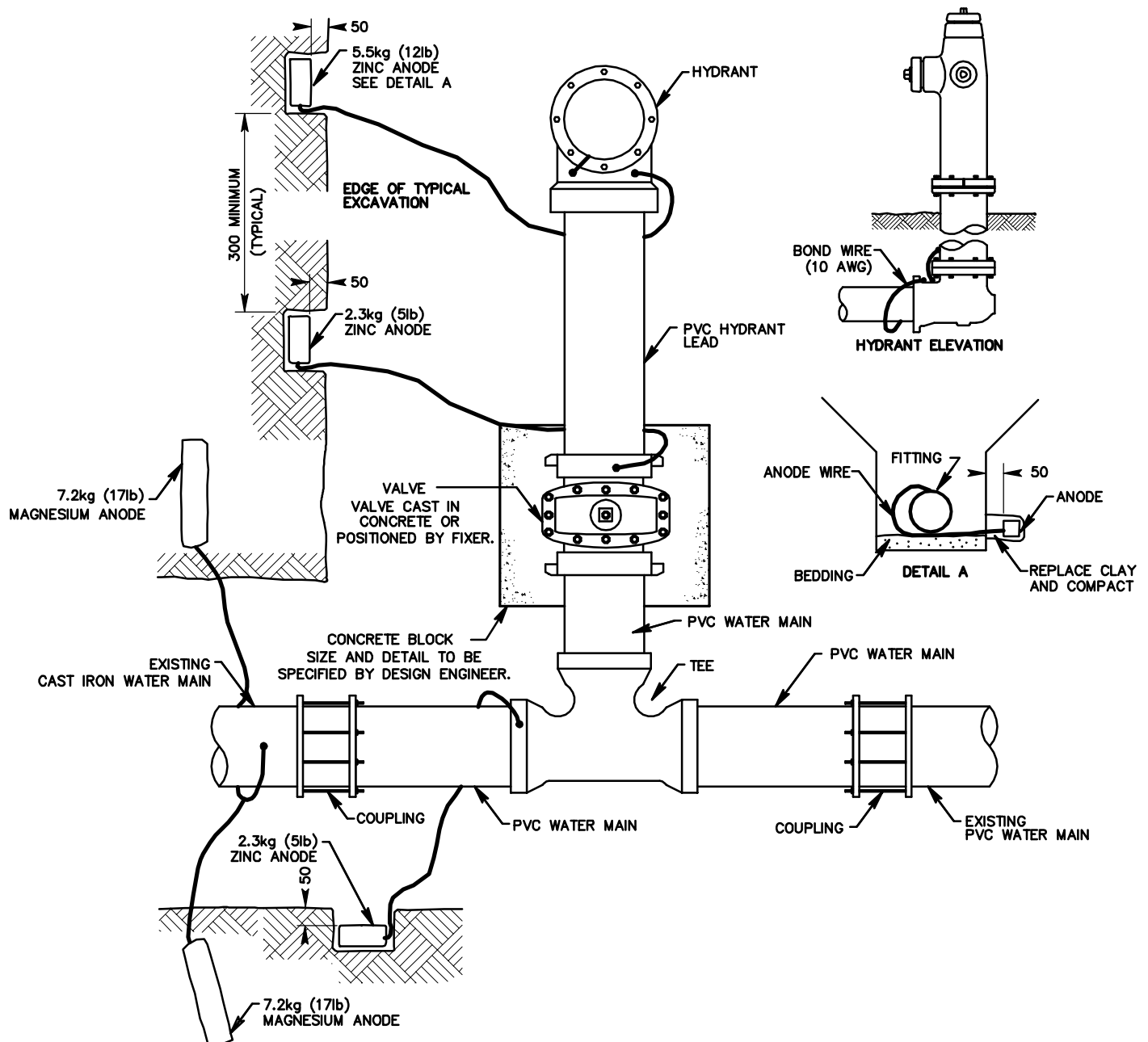
1. MINIMUM DISTANCE FROM ANODE TO PIPE, FITTING, VALVE OR HYDRANT IS 150mm.
2. INSTALL ANODE AT APPROX. PIPE DEPTH IN NATIVE SOIL.
3. ALL ZINC ANODES ON FITTINGS AND VALVES ARE 2.3kg (5lb).
4. ZINC ANODES TO BE EMBEDDED INTO TRENCH WALL TO PROVIDE FOR A MINIMUM OF 50mm OF NATIVE CLAY COMPLETELY SURROUNDING THE ANODE.
5. ANODES TO BE AT LEAST 300mm CLEAR OF THRUST BLOCK.
6. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TYPICAL ANODE INSTALLATION AT STEEL OR IRON FITTINGS USED WITH PVC WATERMAINS	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-15
Date: 2009-04-16	Drawn: TLB	Scale: NTS		



- NOTES:
1. MIN. DISTANCE FROM ANODE TO PIPE IS 150mm.
 2. INSTALL ANODE AT APPROX. PIPE DEPTH IN NATIVE SOIL.
 3. ALL ZINC ANODES ON FITTINGS AND VALVES ARE 2.3kg (5lb).
 4. ALL ZINC ANODES ON HYDRANTS ARE 5.5kg (12lb).
 5. ZINC ANODES TO BE EMBEDDED INTO TRENCH WALL TO PROVIDE FOR A MINIMUM OF 50mm OF NATIVE CLAY COMPLETELY SURROUNDING THE ANODE.
 6. ANODES TO BE AT LEAST 300mm CLEAR OF THRUST BLOCK.
 7. MECHANICAL RESTRAINTS SHOULD BE USED ON EVERY METAL TO PLASTIC PIPE JOINT CONNECTION.
 8. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 9. WHERE RESTRAINTS ARE USED, THRUST BLOCKS ARE REQUIRED.

TOWN OF PEACE RIVER

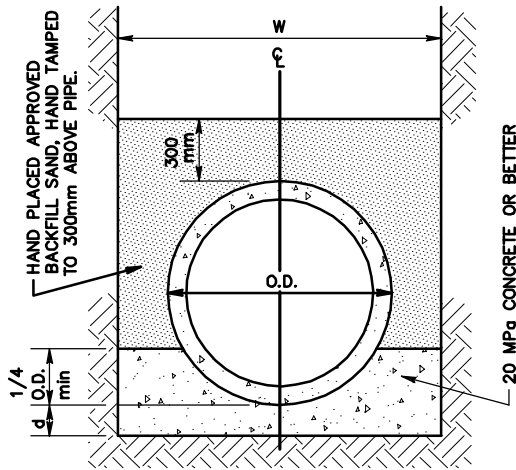
General Municipal Servicing Standards



Rev.		#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	ANODE INSTALLATION AT HYDRANT	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-17
Date: 2009-04-16	Drawn: TLB	Scale NTS		

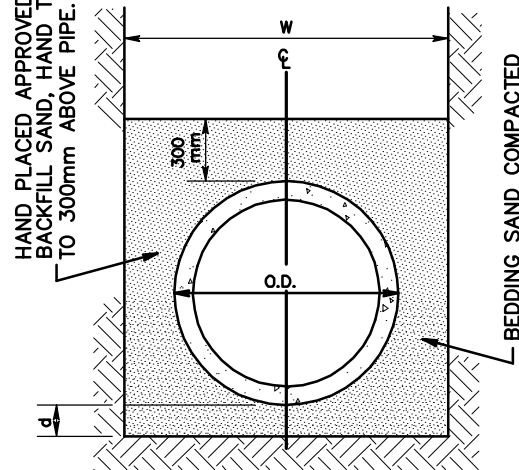
CLASS A BEDDING

$$L_f = 2.8$$



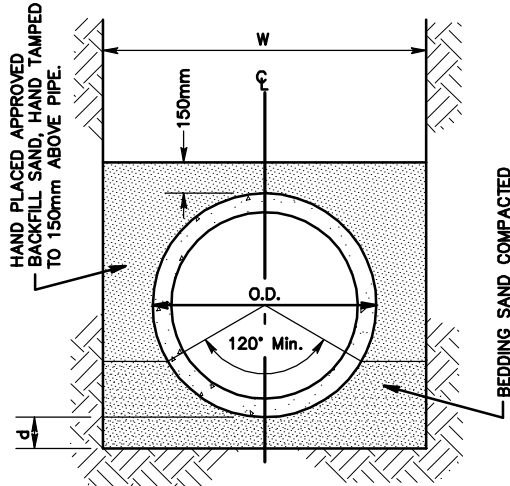
CLASS B BEDDING

$$L_f = 1.9$$



CLASS C BEDDING

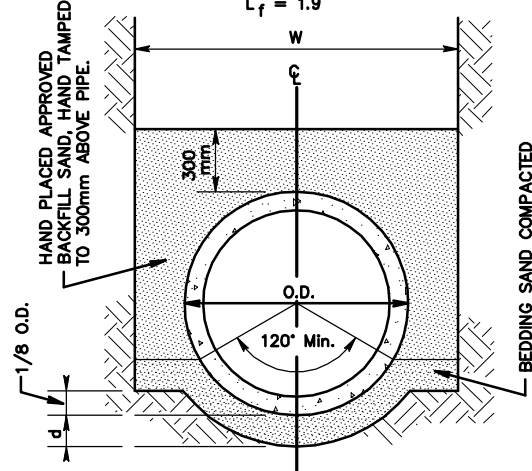
$$L_f = 1.5$$



CLASS B BEDDING

ALTERNATE - 375mm I.D. & UNDER

$$L_f = 1.9$$



NOTES:

1. W = TRENCH WIDTH - O.D. + 450mm (MINIMUM).
 - 1000mm max. FOR PIPES UP TO AND INCLUDING 400mm DIAMETER.
 - O.D. + 400mm max. (ON EITHER SIDE {800mm TOTAL}) FOR PIPE DIAMETERS 450mm AND ABOVE.
2. O.D. = OUTSIDE PIPE DIAMETER.
3. I.D. = INSIDE PIPE DIAMETER.
4. L_f = LOAD FACTOR.
5. d = DEPTH OF BEDDING BELOW PIPE; 150mm MIN.
6. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
7. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	
Rev.	
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Date:	2009-04-16



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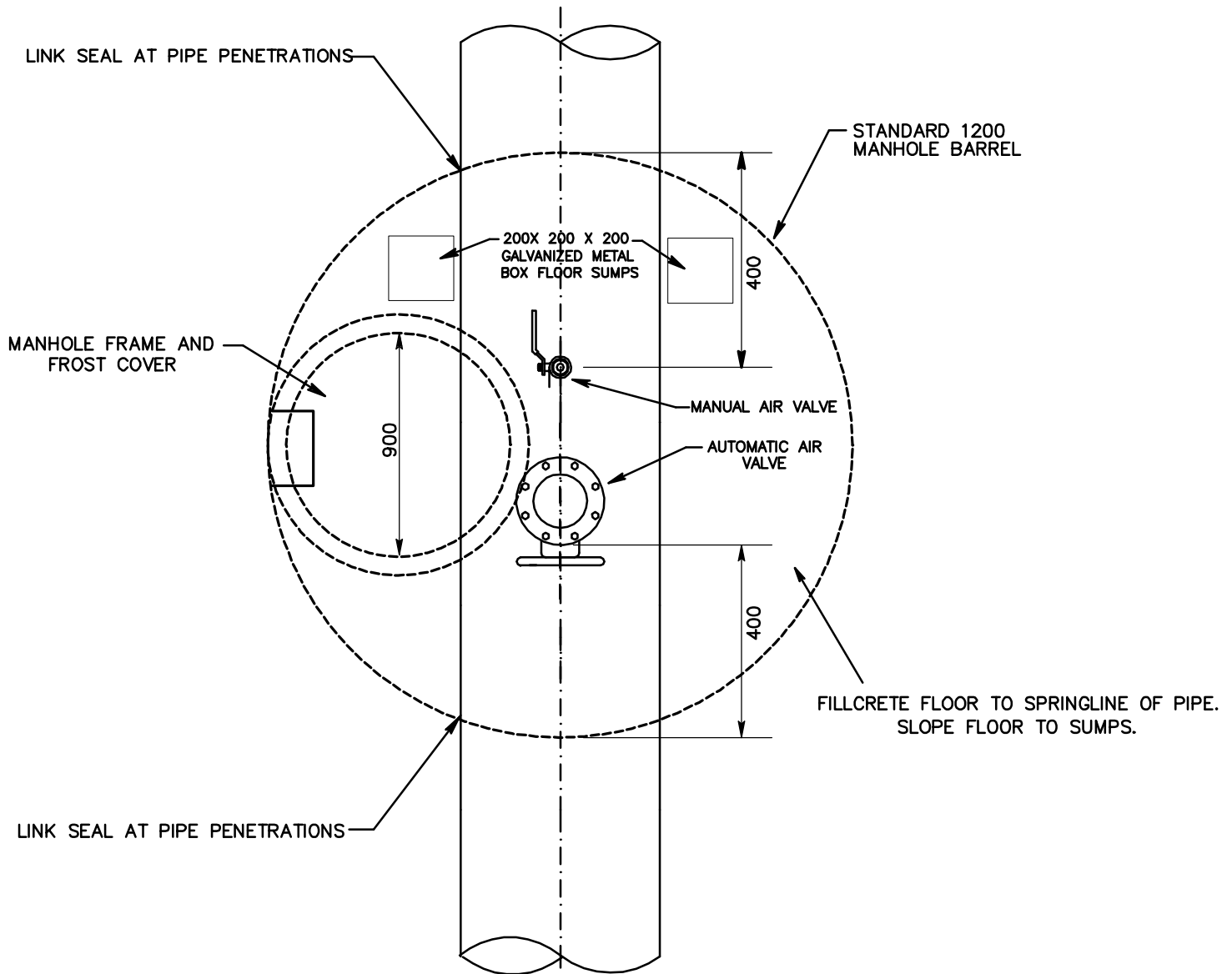
File No.: GP6033068

Design:
Scale NTS

STANDARD TRENCH BEDDING FOR CIRCULAR PIPES

Approved:

Figure D-18




NOTES:

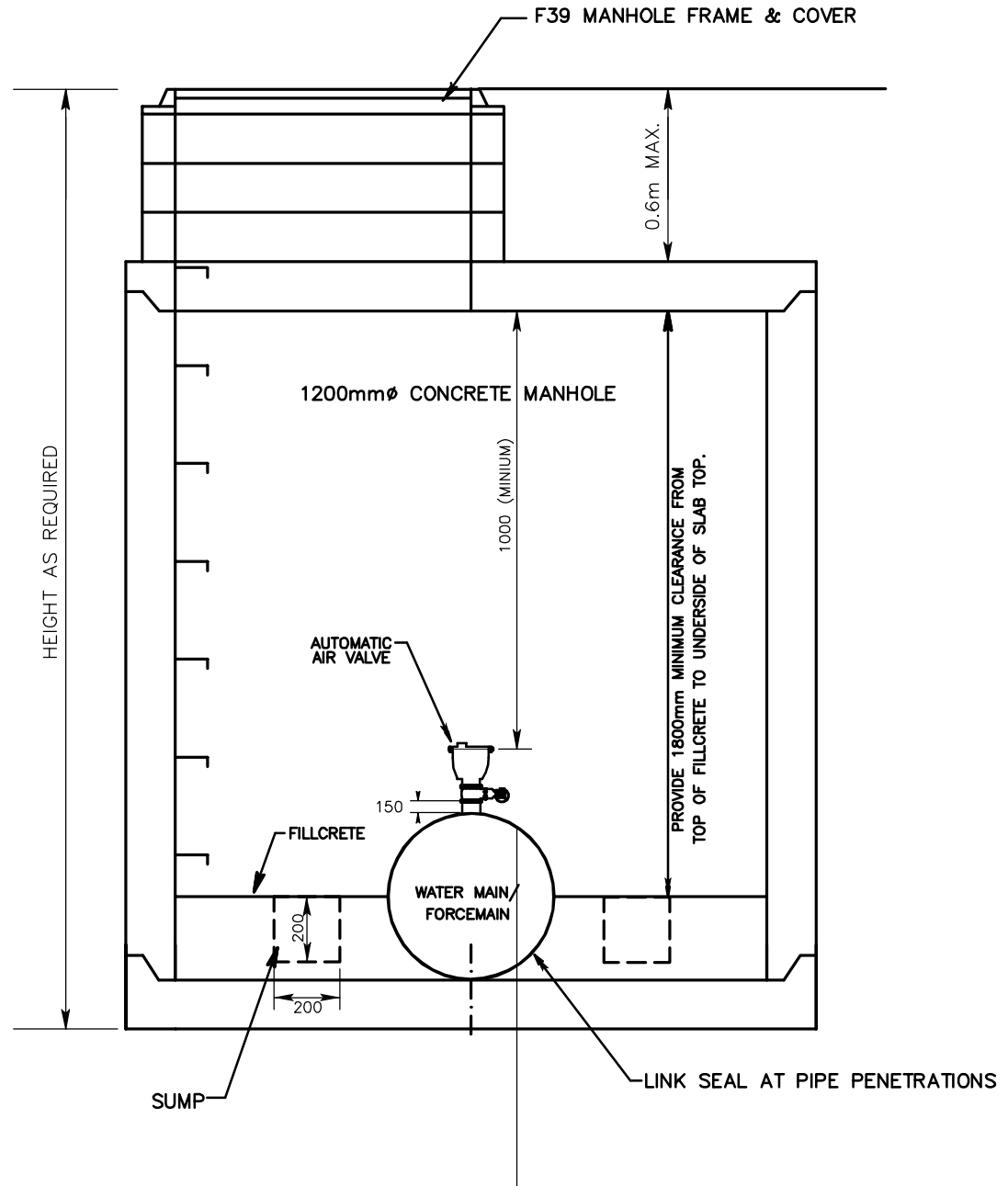
1. INSULATE EXTERIOR OF MANHOLE AND RISER WITH 100mm THICK POLYURETHANE FOAM INSULATION. TREAT WITH APPROVED WATERPROOFING COMPOUND.
2. FOR STEEL AND CONCRETE CYLINDER WATER MAINS, PROVIDE ELECTRICAL ACCESS WIRES WHEN DIRECTED BY THE ENGINEER.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	AUTOMATIC AIR VALVE CHAMBER DETAIL (PLAN)	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-19
Date: 2009-04-16	Drawn:	Scale NTS		




NOTES:

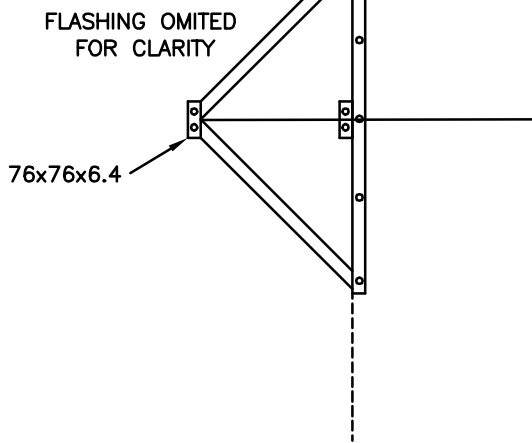
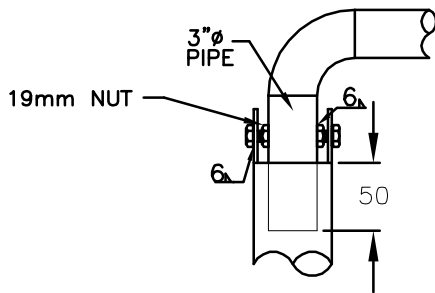
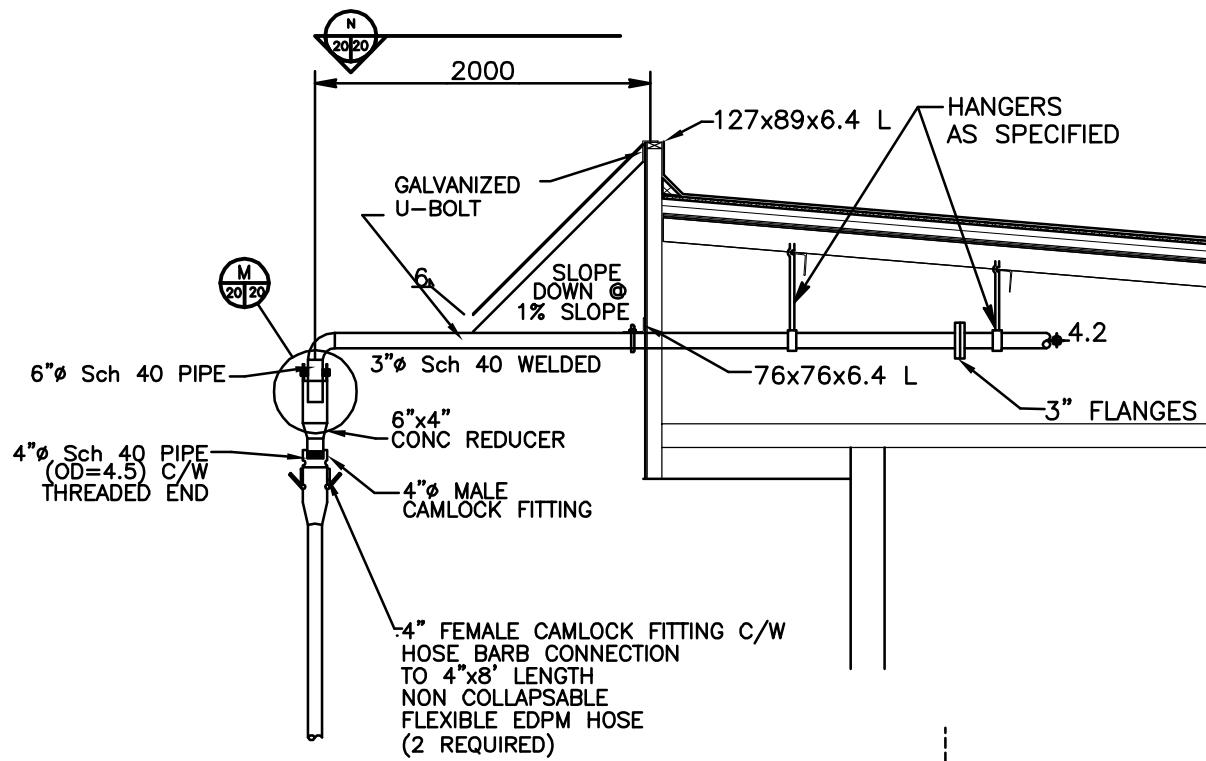
1. ALSO SEE FIGURE D-19.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	AUTOMATIC AIR VALVE CHAMBER DETAIL (PROFILE)	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-20
Date: 2008-12-22	Drawn:	Scale NTS		




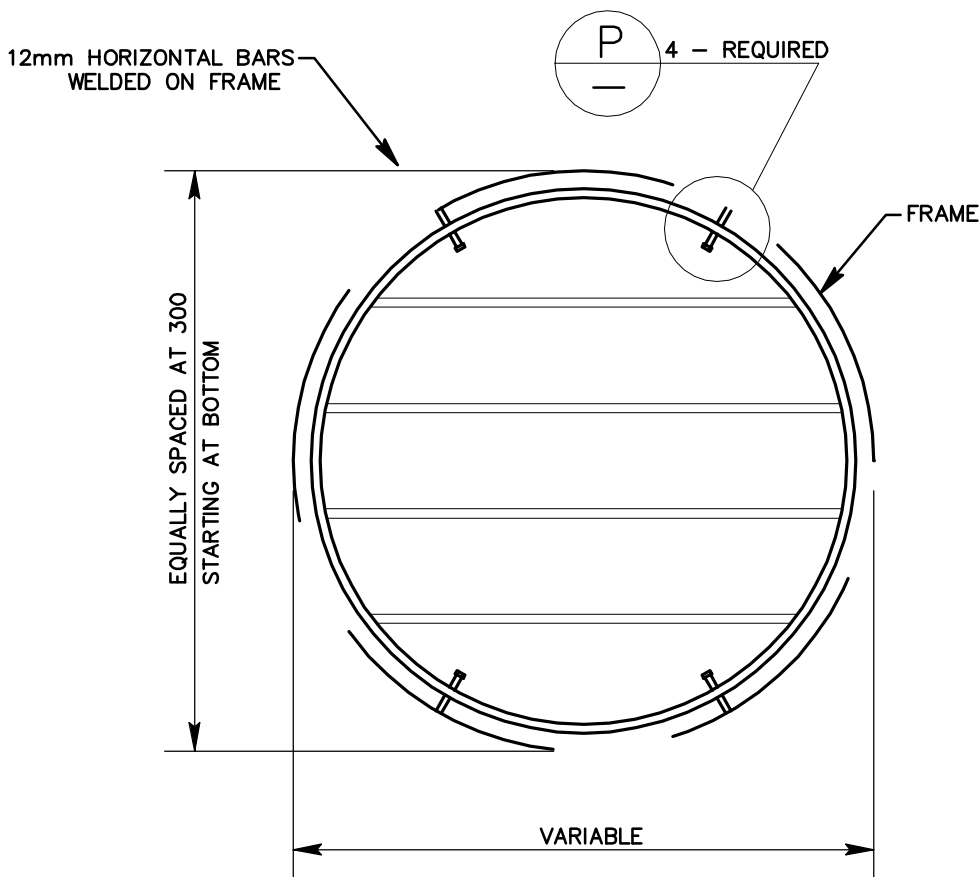
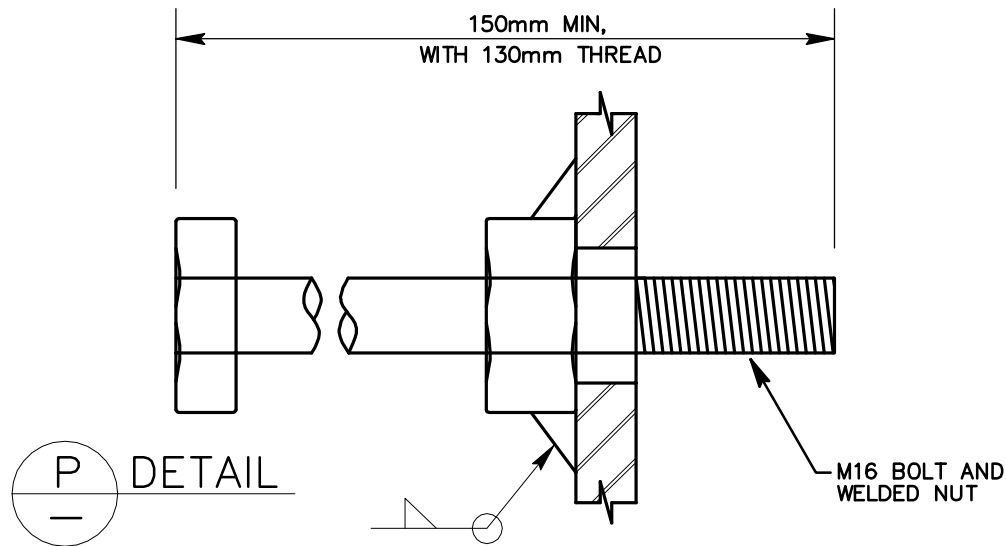
NOTE:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	TRUCK FILL DETAILS	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-21
Date: 2009-04-16	Drawn:	Scale NTS		




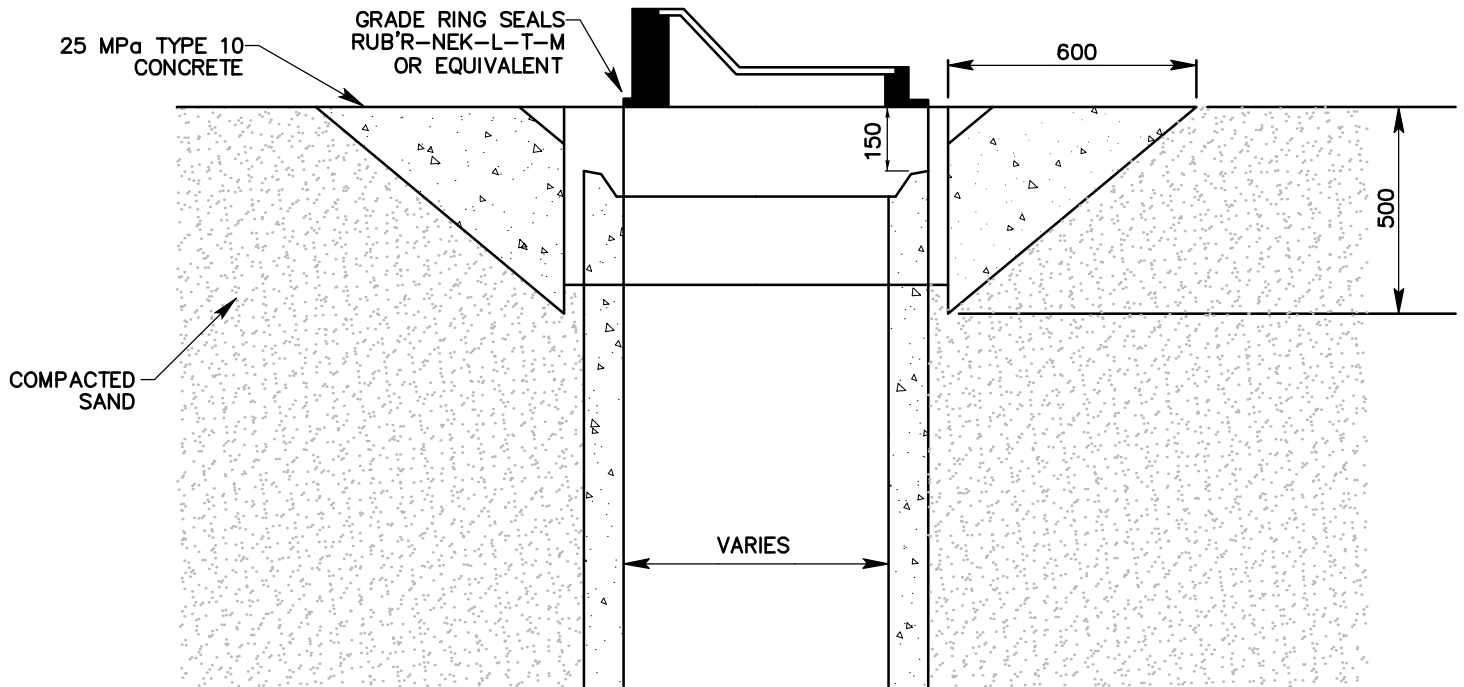
NOTE:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	PIPE GRATE DETAIL STORM SEWER OUTLET		Figure D-23			
Rev.						File No.: GP6033068	Design:	Approved:
Rev.						Date: 2009-04-16	Drawn: JAD	Scale: NTS




NOTES:

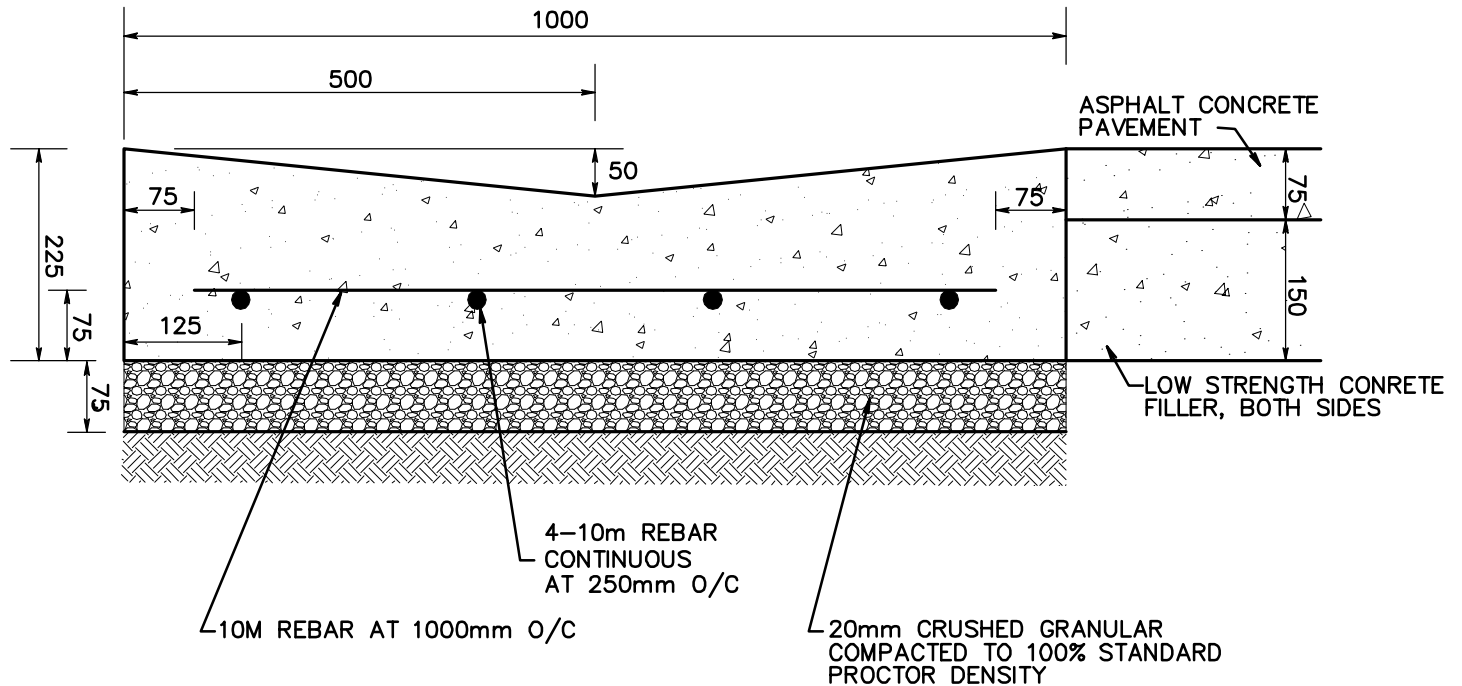
1. ALL MATERIAL IS 7.5mm (1/4) MILD STEEL PLATES.
2. ALL METAL JOINTS TO BE WELDED.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
4. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	STEEL PLATE TOP SYSTEM	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure
Date: 2009-04-16	Drawn: T.S.	Scale NTS		D-24




NOTES:

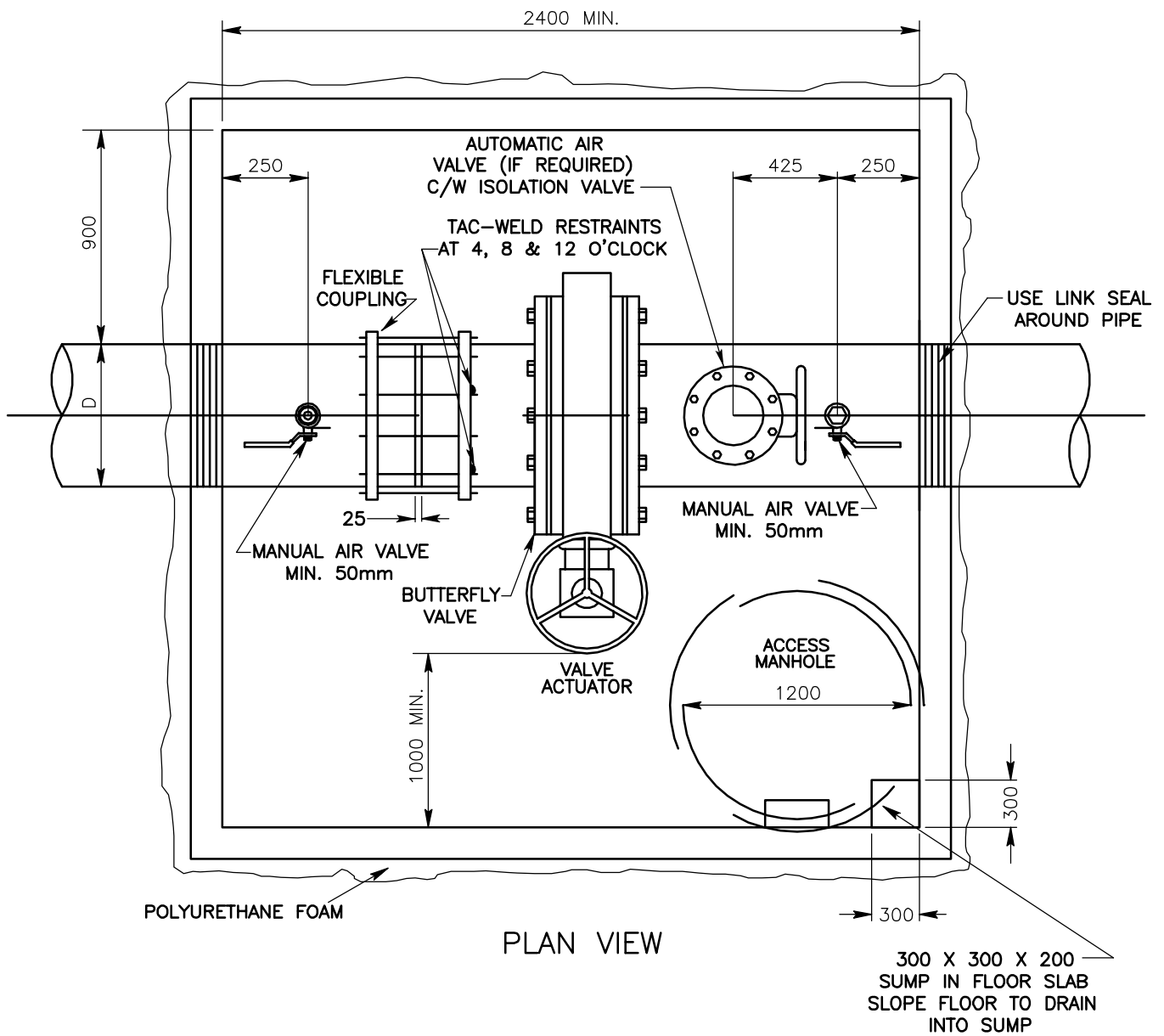
1. EXPANSION/CONTRACTION JOINT REQUIRED ON ONE END. IF DONE IN 2 POURS, ONLY CONSTRUCTION JOINT REQUIRED.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	<h2>1000mm CONCRETE SWALE</h2>	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved: _____ Figure D-25	
Date: 2009-04-16	Drawn: JAD	Scale: NTS		



NOTES:

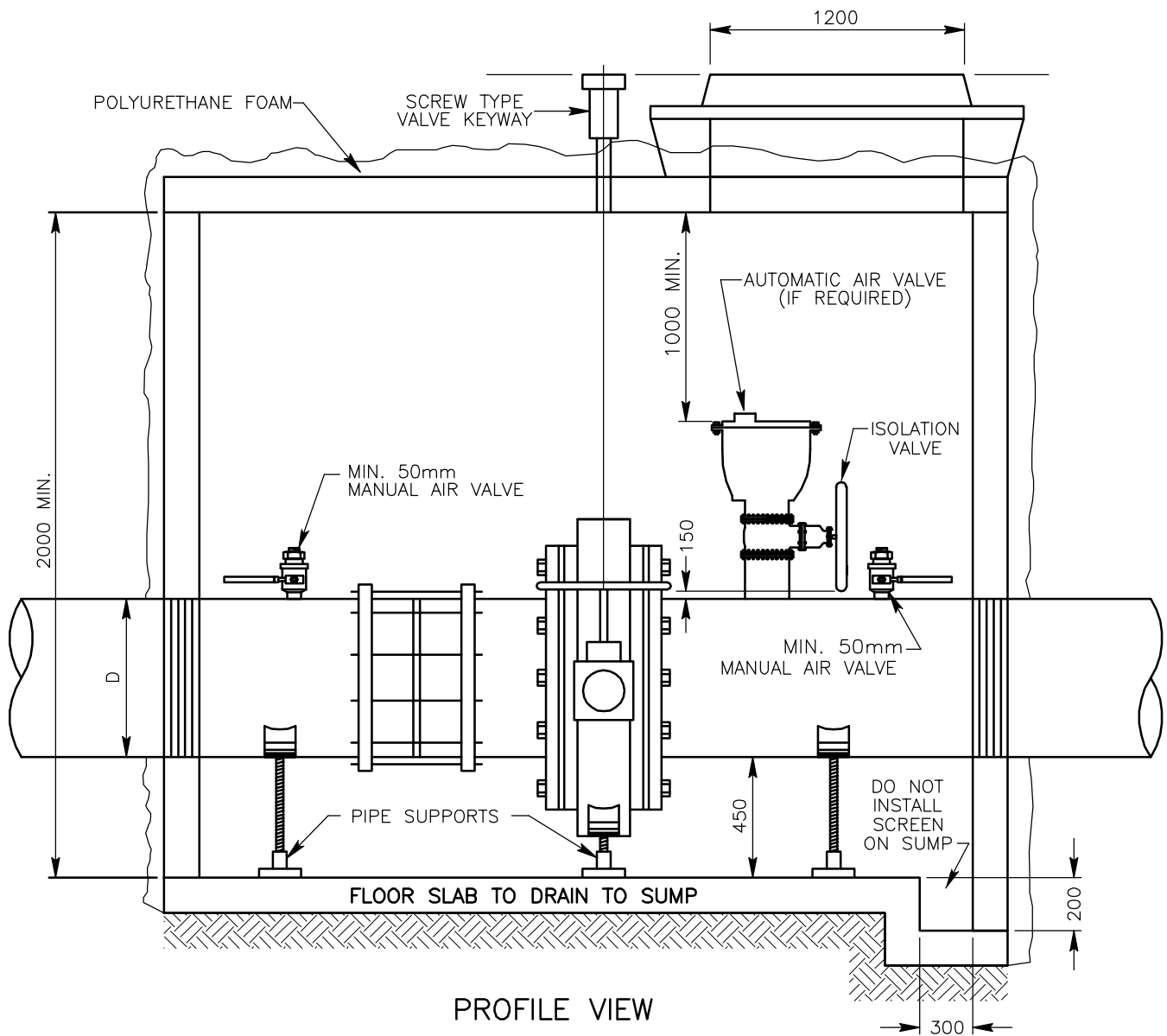
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PROVIDE 100mm THICK POLYURETHANE FOAM INSULATION AROUND EXTERIOR OF CHAMBER WALLS, ROOF AND MANHOLE RISER FOR CHAMBERS UTILIZING AUTOMATIC AIR VALVES. PROVIDE A FROST COVER FOR MANHOLE FRAME. COVER ALL INSULATION WITH APPROVED WATERPROOFING COMPOUND.
3. ALSO SEE FIGURE D-27.
4. FOR STEEL AND CONCRETE CYLINDER WATER MAINS, PROVIDE AN ELECTRICAL CONTINUITY BOND ACROSS THE VALVE AND COUPLING WHEN DIRECTED BY THE ENGINEER.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	VALVE CHAMBER DETAIL (PLAN)	
Rev.			Approved:	Figure D-26
Rev.				
Date: 2009-04-16	File No.: GP6033068	Design:		
	Drawn: CP	Scale: NTS		




PROFILE VIEW

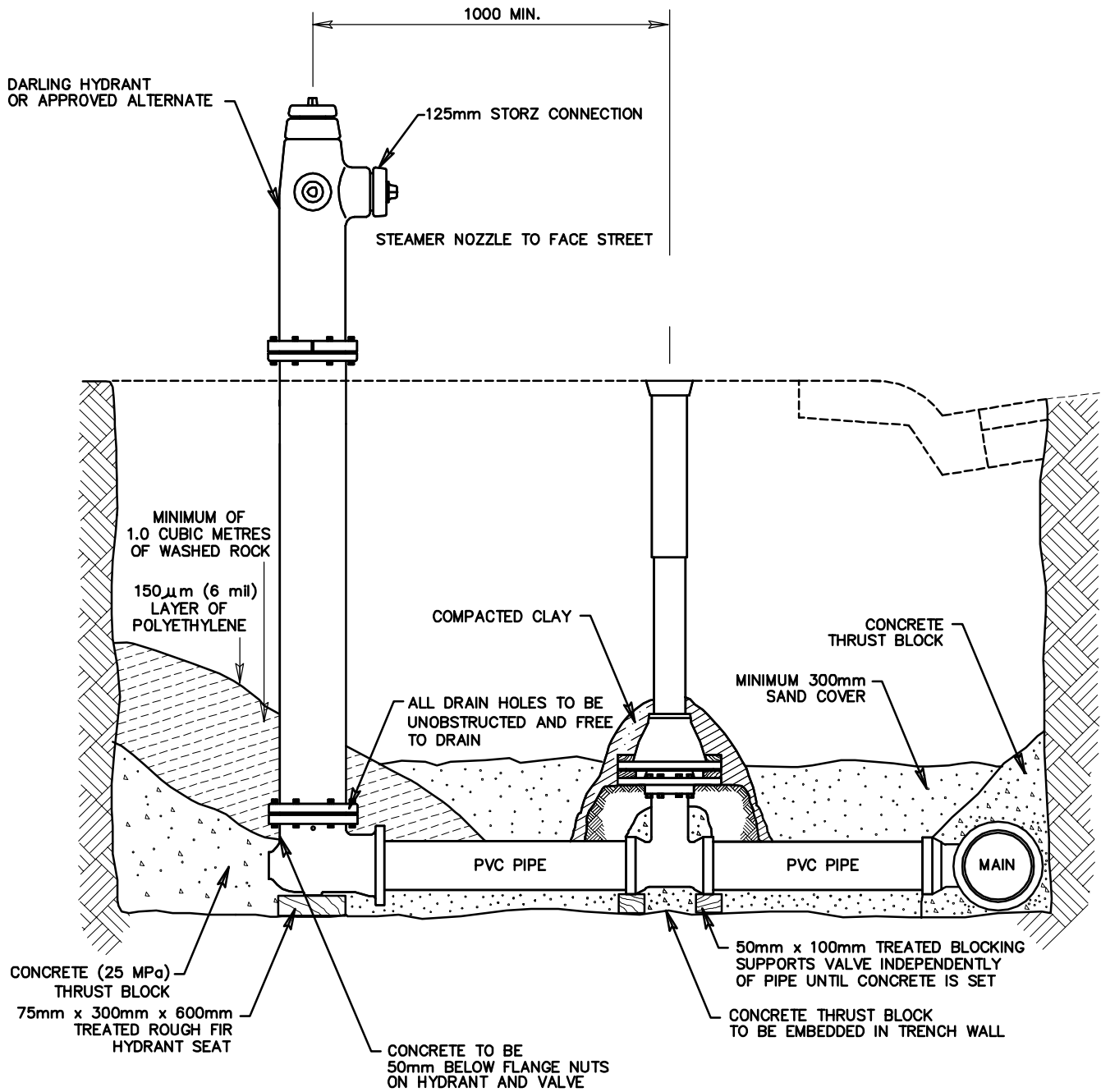
- NOTES:
 1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. ALSO SEE FIGURE D-26.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	VALVE CHAMBER DETAIL (PROFILE)	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-27
Date: 2009-04-16	Drawn: CP	Scale NTS		




NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.
3. HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH UTILITY DEPARTMENT SPECIFICATIONS.
4. 150mm FIRE HYDRANT OF APPROVED MAKE, AUTOMATIC SELFDRAINING c/w PUMPER NOZZLE.
5. WHERE WATER TABLE IS ABOVE BOTTOM OF HYDRANT, DRAIN SHALL BE PLUGGED.

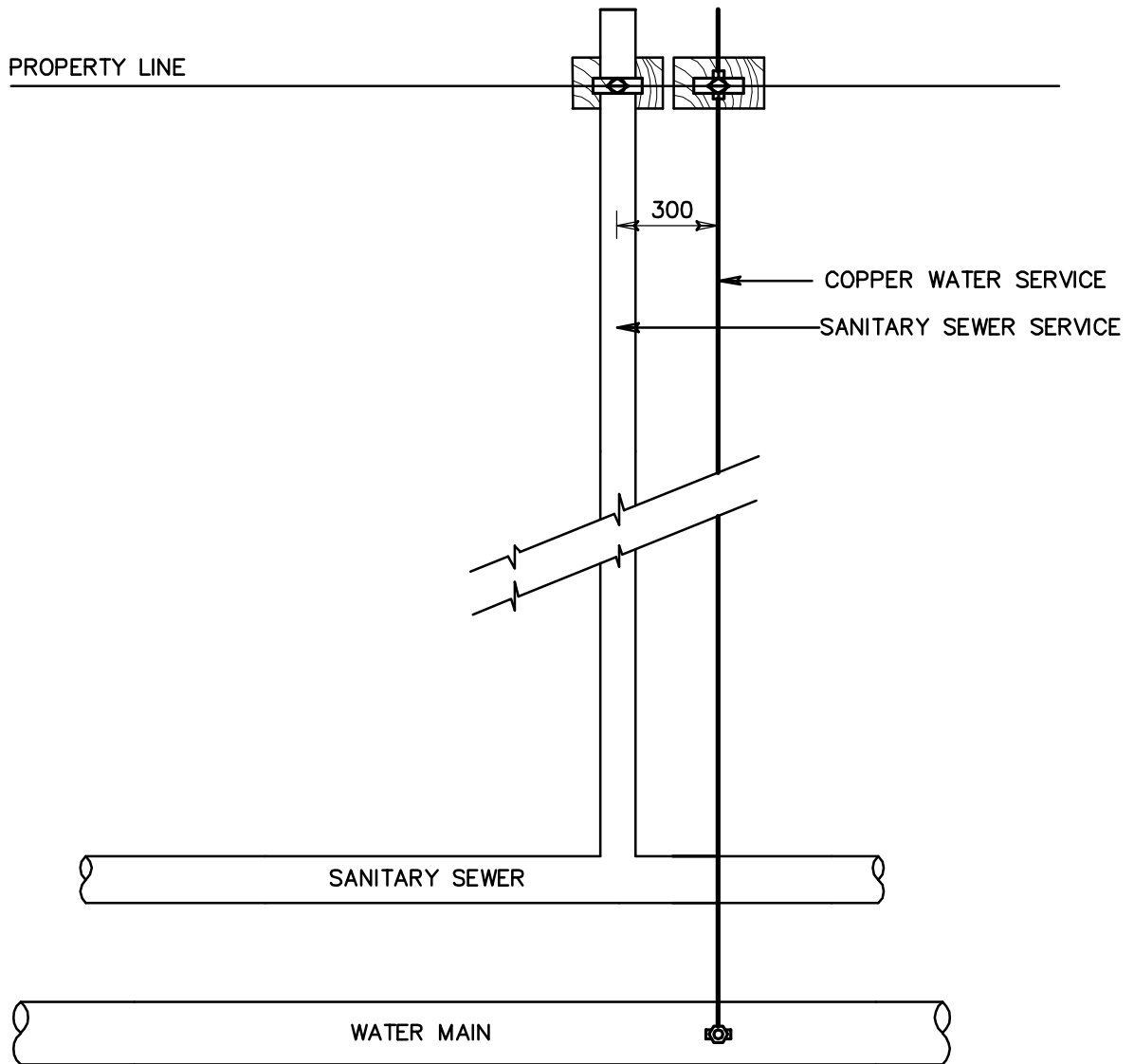
TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	<h3>TYPICAL HYDRANT CONNECTION</h3>	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-28
Date: 2009-04-16	Drawn:	Scale NTS		

SERVICE TO ENTER LOT WITHIN 2.25m OF CENTER LINE OF LOT




NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. SERVICES MAY BE EXTENDED INTO PRIVATE PROPERTY TO EDGE OF GAS EASEMENT IN LANELESS SUBDIVISIONS.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.	 Stewart Weir	#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	SINGLE LOW PRESSURE (SAN.) SERVICE	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-29
Date: 2009-04-16	Drawn: T.L.B.	Scale NTS		

MUELLER
LINE SIZE 75 or 100 AWWA
FLANGED GATE VALVE WITH
NORWOOD TYPE "C" SLIDING
VALVE BOX. FIT VALVE WITH
EXTENSION SPINDLE. PLAIN
LID REQUIRED.
(VALVE NORMALLY CLOSED)

NORWOOD Fig. C100
EXTENSION SERVICE BOX
WITH CAST IRON FOOT PIECE
AND OPERATING ROD

NORWOOD F39 CAST IRON
FRAME AND SEWER COVER WITH LOGO
"TOWN OF PEACE RIVER LIGHTS SANITARY SEWER"
ON 150mm GRADE RINGS

RITEPRO INC QUICK COUPLING
PART A ADAPTER WITH
PART DC DUST CAP

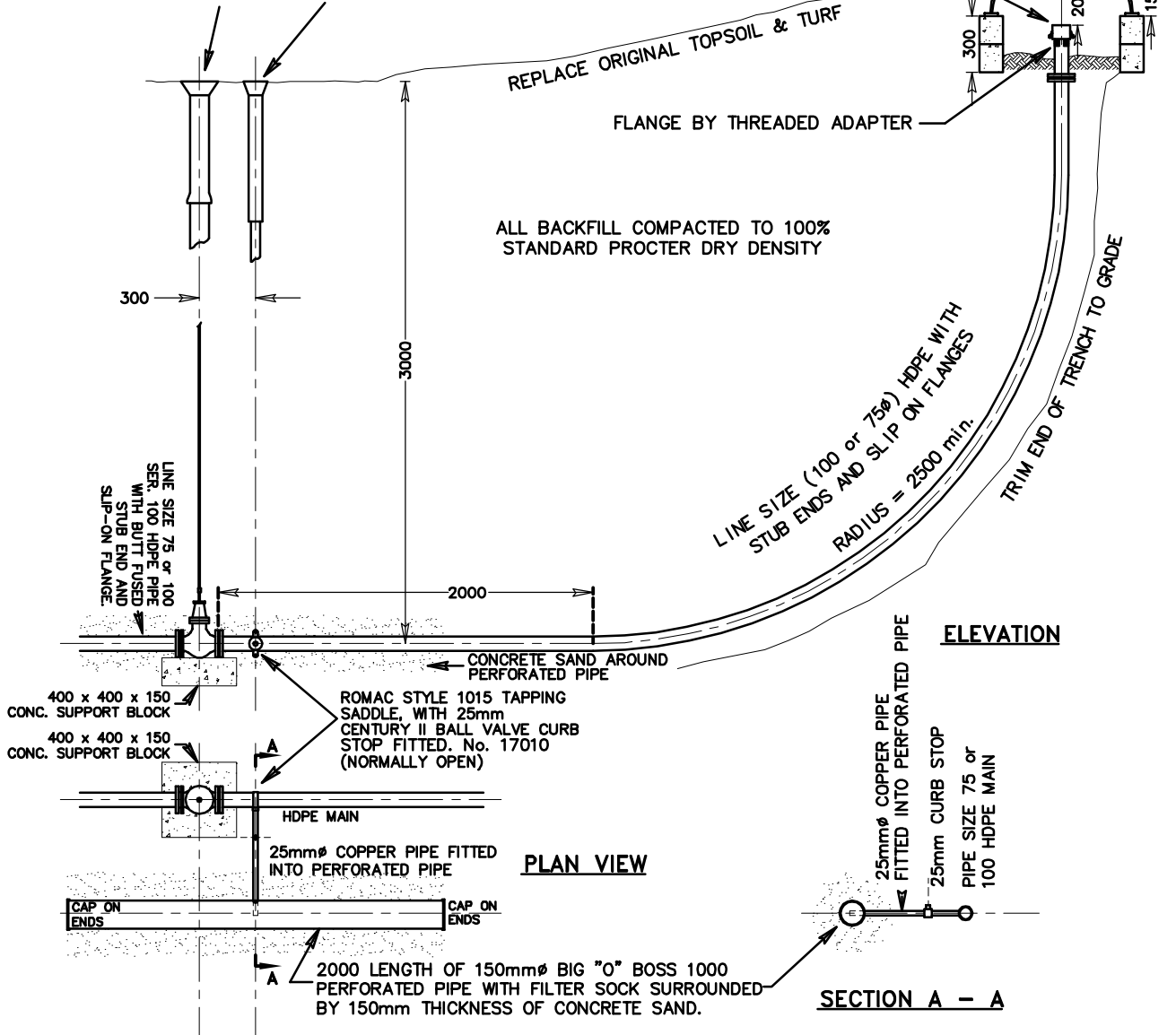
REPLACE ORIGINAL TOPSOIL & TURF

FLANGE BY THREADED ADAPTER

ALL BACKFILL COMPACTED TO 100%
STANDARD PROCTER DRY DENSITY

LINE SIZE (100 or 75 ϕ) HDPE WITH
STUB ENDS AND SLIP ON FLANGES
RADIUS = 2500 min.

TRIM END OF TRENCH TO GRADE



ELEVATION

PLAN VIEW


SECTION A - A

NOTES:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

TOWN OF PEACE RIVER

General Municipal Servicing Standards



Rev.		#99, 11039 78th Avenue Grande Prairie, Alberta 780.814.5880	SANITARY CLEAN OUT DETAIL	
Rev.				
Rev.				
Rev.	File No.: GP6033068	Design:	Approved:	Figure D-30
Date: 2009-04-16	Drawn: T.L.B.	Scale NTS		