Page Setup: 22x34 FULL SIZE NORMAL FAST (LAYOUT)

DRAWING FRAME: 790mm x 534mm City of Ottawa 2008

OTT-00232374-A0

STEAMLINE STREET
ROADS, SERVICING AND GRADING

DETAIL SHEET

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• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

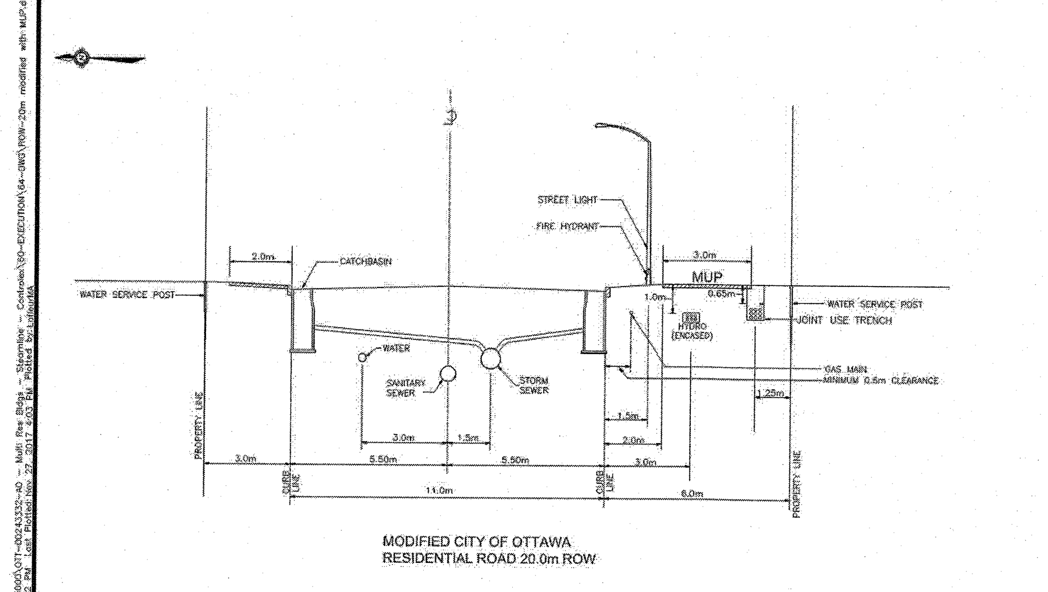
LICENSED PROFESSIONAL ENGINEER — M.A. ANSARI — Jan 18/2018 — PROVINCE OF ONTARIO

Contract No. ISD	Dwg. No. 009
Sheet No.	10 of 10
Asset No.	--
Asset Group	ISD
Des. ML	Chk'd. AA
Dwn. AO	Chk'd. AA
Utility Circ. No.	Index No.
Const. Inspector	
Scale: 0 2m 4m 10m HORIZONTAL	1:250

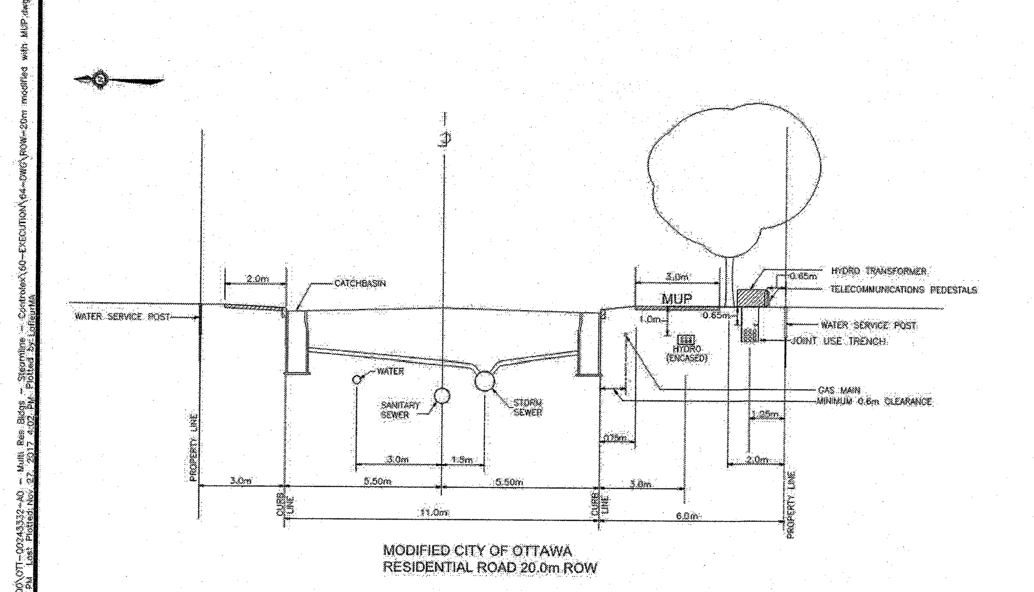
NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

REVISIONS

No.	Description	By	Date (dd/mm/yy)
1	ISSUED FOR CLIENT REVIEW	ML	01/09/18
2	ISSUED FOR CLIENT REVIEW	AA	01/16/18
3	ISSUED FOR SITE PLAN APPROVAL	AA	01/18/18

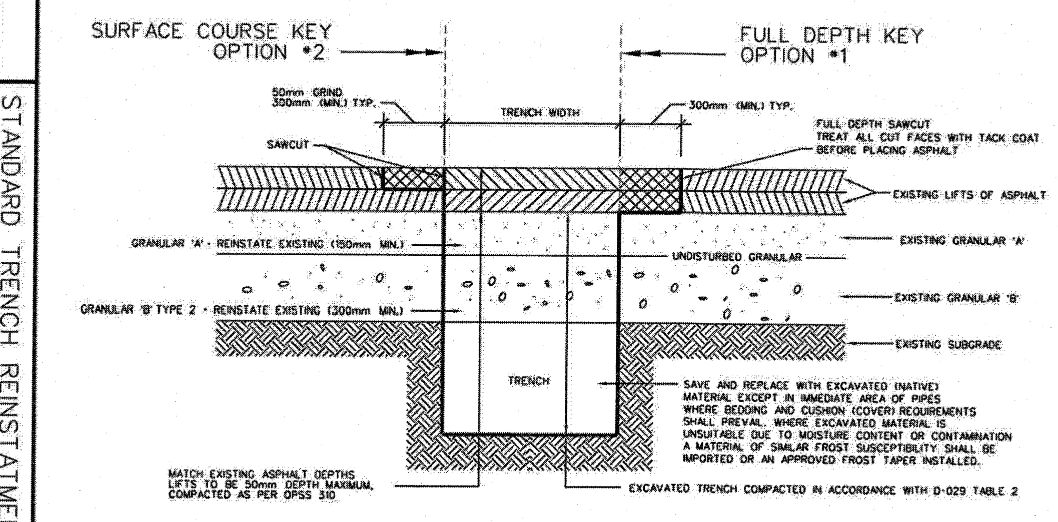


exp Services Inc. — DESIGN ML — DRAWN ML — DATE NOV 2017 — FILE NO 243332 — STEAMLINE STREET MULTI RESIDENTIAL BUILDINGS — 20m ROW SECTION WITH MUP — SCALE NTS — FIG #1



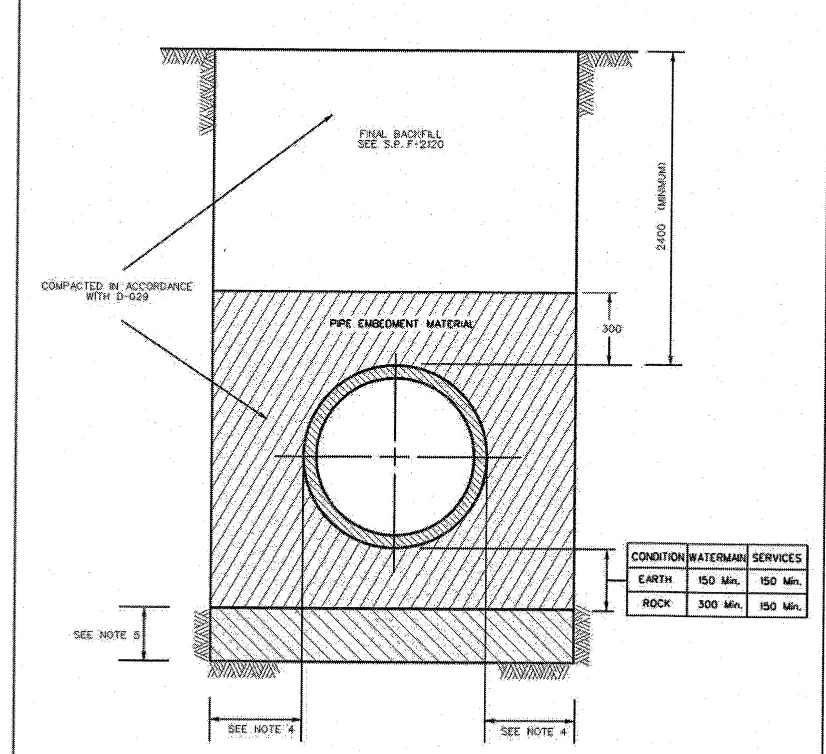
exp Services Inc. — DESIGN ML — DRAWN ML — DATE NOV 2017 — FILE NO 243332 — STEAMLINE STREET MULTI RESIDENTIAL BUILDINGS — 20m ROW SECTION WITH MUP — SCALE NTS — FIG #2

STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE



NOTES
1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm LEVEL B (PG58-34) AND BASE COURSE ASPHALT SUPERPAVE 19.0mm LEVEL B (PG58-34) IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR "A" FOR THE REMAINDER.
4. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS, REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.0mm LEVEL B (PG58-34) COMPACTED IN LIFTS.
5. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130.

DATE: MAY 2001 — REV. DATE: MARCH 2017 — DWG. No.: R10



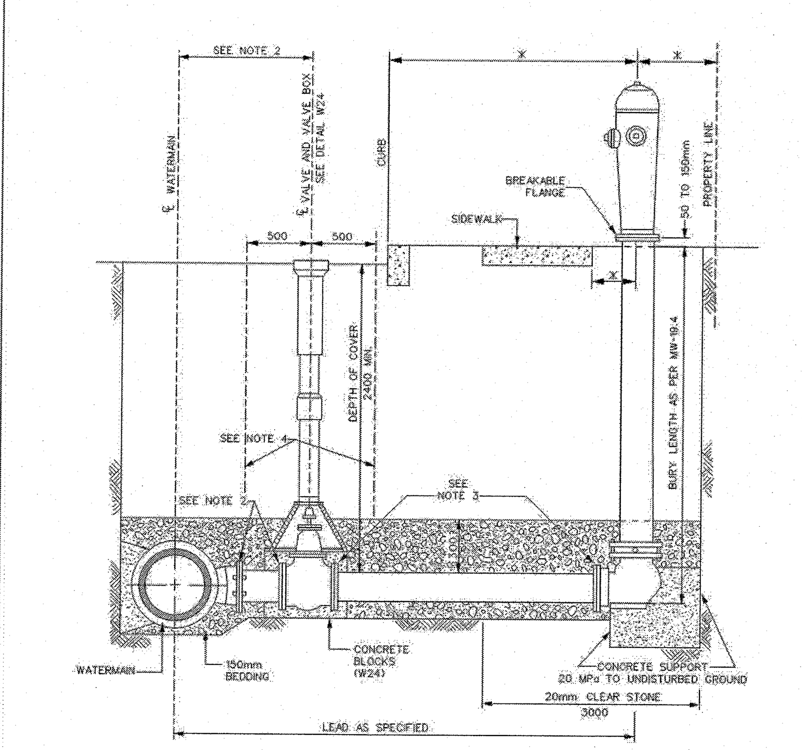
CONDITION	WATERMAIN	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

NOTES:
1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA. (mm)	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

STANDARD TRENCH DETAIL — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: W17

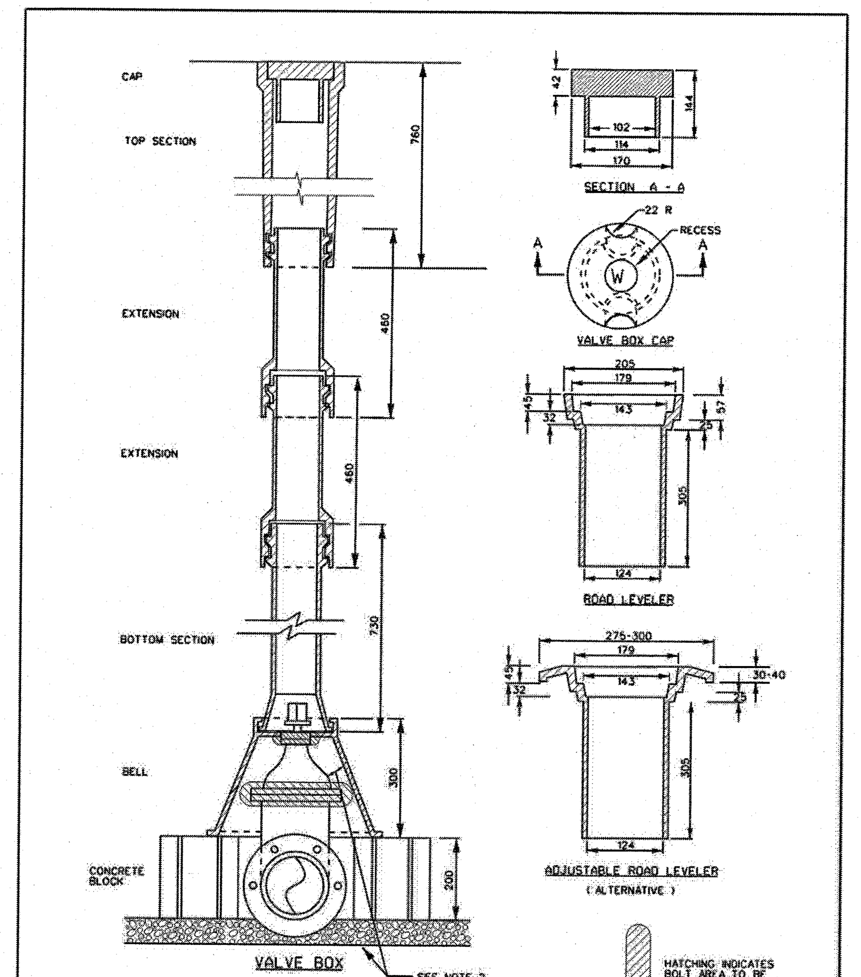


NOTES

FOR ALL WATERMAINS

1. SEE DETAIL W20 FOR HYDRANTS IN DITCH AREAS.
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/RESTRAINING DEVICES TO BE UTILIZED. FOR WATERMAINS 600mm AND OVER, BOLT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE.
3. RETAINING/RESTRAINING DEVICES TO BE UTILIZED.
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-19.4 AND F-4414.
5. SEE SPF-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA.
6. * SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

HYDRANT INSTALLATION — DATE: MAY 2001 — REV. DATE: MARCH 2013 — DWG. No.: W19

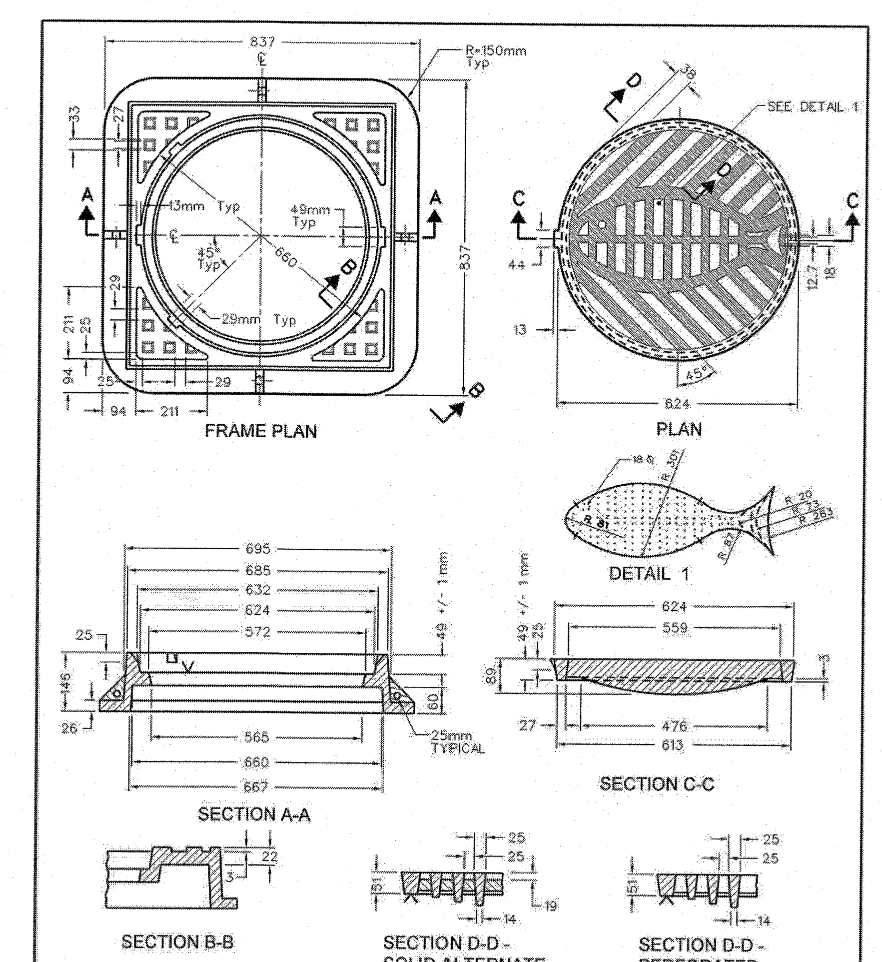


NOTES:

FOR AUXILIARY, SERVICES AND ISOLATION VALVES.

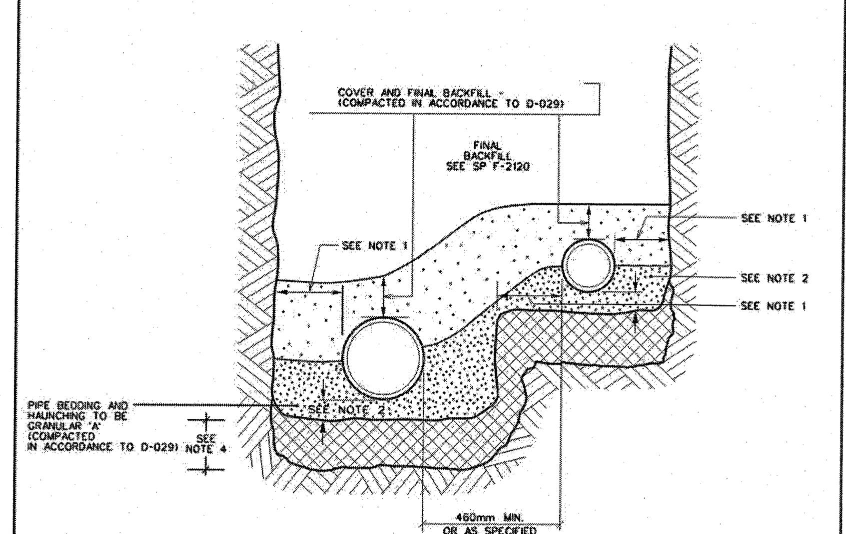
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

VALVE BOX ASSEMBLY — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: W24



NOTES:
1. ALL DIMENSIONS SHOWN ARE FOR FINISHED CASTINGS ONLY. PATTERN MAKERS AND CASTING SHOP SHOULD MAKE ALLOWANCES ACCORDINGLY.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
3. FOR NEW CONSTRUCTION WHERE SURFACE INLETS ARE SPECIFIED.
4. COMPANIES WITH GRATE DIMENSIONS NOT EXACTLY THE SAME AS SHOWN ABOVE WILL ALSO BE CONSIDERED.
5. ALTERNATE SOLID COVER TO HAVE EYE 25mm Dia. HOLE WITH 25mm APPROVED PLUG

HEAVY DUTY "FISH" TYPE ROUND CATCH BASIN COVER (MODIFIED OPSD-400.07) — DATE: MAY 2005 — REV. DATE: MARCH 2017 — DWG. No.: S19



NOTES:

1.

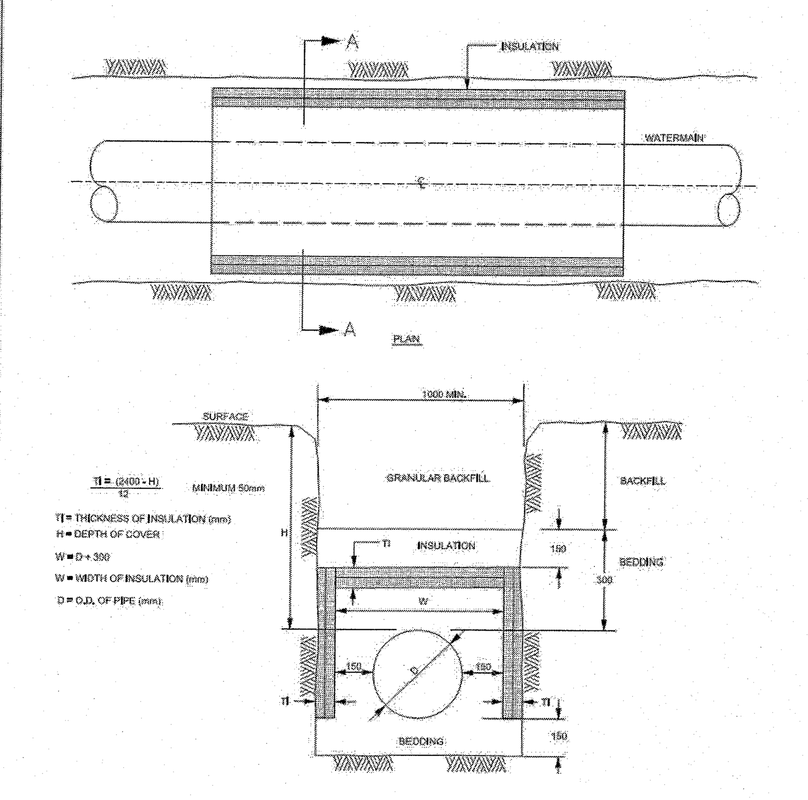
PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
150 TO 900	CONC 450 PVC 450
OVER 900	500

2.

CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

3. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.
4. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.
5. SEE S11.3 FOR TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING

COMBINED TRENCH (SEWERS & SEWER SERVICES) — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: S7

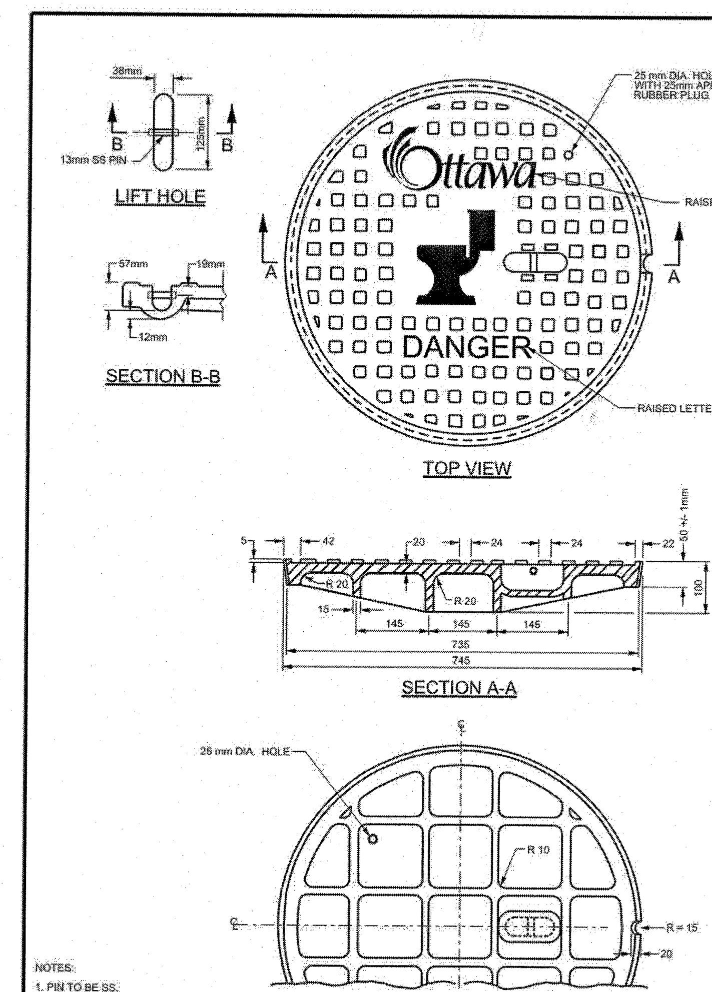


NOTES

FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm

1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC. INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

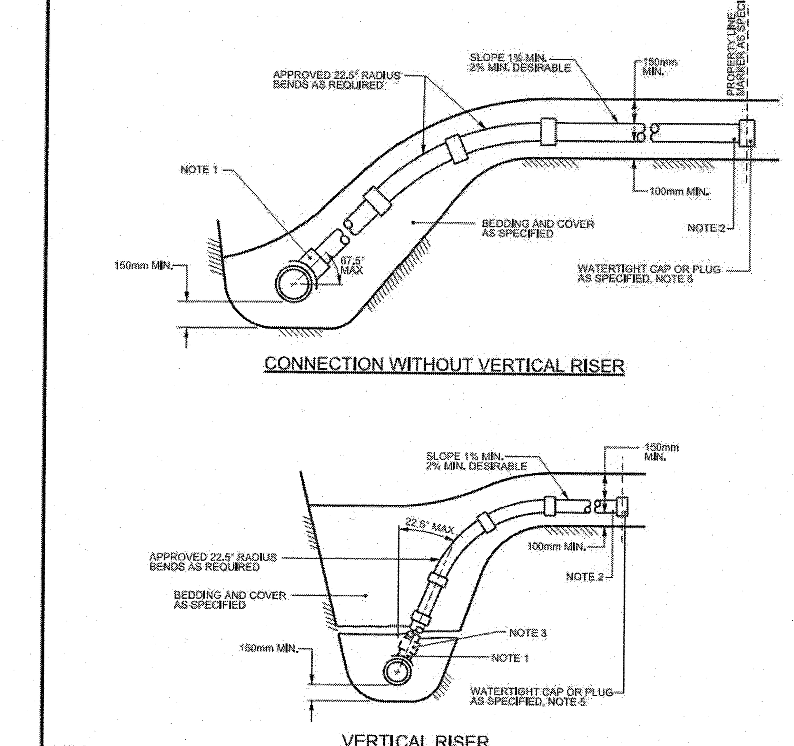
THERMAL INSULATION FOR WATERMAINS IN SHALLOW TRENCHES — DATE: MAY 2001 — REV. DATE: MARCH 2013 — DWG. No.: W22



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

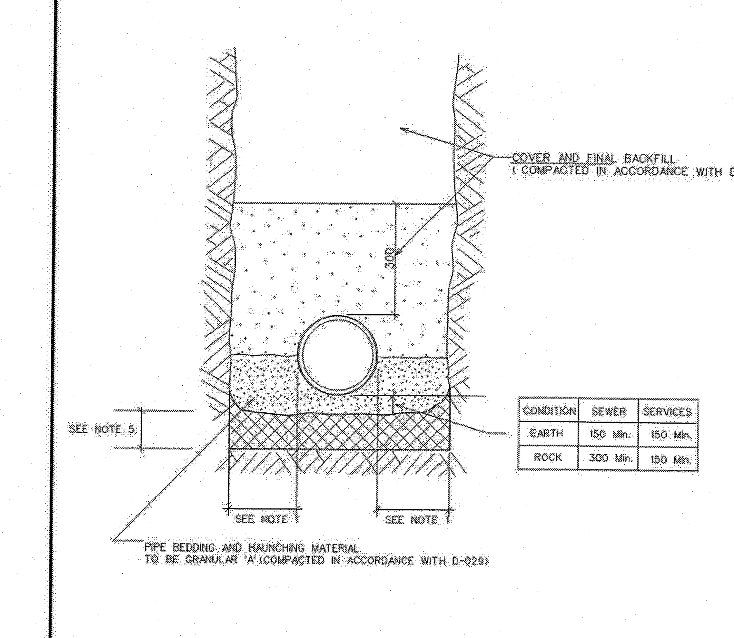
STANDARD CIRCULAR SANITARY & COMBINED MAINTENANCE HOLE COVER — DATE: MARCH 2008 — REV. DATE: MARCH 2017 — DWG. No.: S24



NOTES:
1. ALL DIAMETERES OF SERVICE CONNECTIONS THAT HAVE NOMINAL DIAMETERS NO GREATER THAN 50% OF THE NOMINAL DIAMETER OF THE RIGID SEWER PIPE SHALL BE MADE USING A BELL END INSERT AS PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT, INSTALLED ABOVE THE SPRING LINE.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED.
5. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES 375mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010) — DATE: MARCH 2008 — REV. DATE: MARCH 2014 — DWG. No.: S11



CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

NOTES:

1.

PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
900 OR LESS	CONC 450 PVC 450
OVER 900	500

2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INITIAL BACKFILL MATERIAL - CONCRETE PIPE - SAND, GRANULAR 'A'
 - PVC PIPE - GRANULAR 'A'
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.

SINGLE TRENCH (SEWER & SEWER SERVICES) — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: S6

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