

**CITY OF HAMILTON PLANNING AND ECONOMIC
DEVELOPMENT DEPARTMENT
GROWTH MANAGEMENT DIVISION,
DEVELOPMENT ENGINEERING APPROVALS SECTION**

SEWER AND WATER PERMIT PROCESS

**SEWER AND WATER SYSTEM DESIGN REQUIREMENTS
(Servicing Drawing Requirements)**

LAST REVISION: October 27, 2021

SEWER WATER PERMIT PROCESS

To obtain **Sewer and Water Permits** for **commercial, industrial** (see MOE requirements below), **institutional** and **multi residential developments** (i.e. townhouse, condominium and apartments), the applicant/owner must provide an appropriate drawing to the Planning and Economic Development Department, Growth Management Division, Development Engineering Approvals Section for review and approval. Along with this drawing an application review fee in the amount of **\$860.00** (small servicing project) or **\$1,710.00** (large servicing project), must be submitted, with the actual required amount to be determined through initial review and consultation. Review fees are **HST exempt**.

For commercial Water Filling Stations, applications should be made directly to the Public Works Department, Water and Wastewater Division, 330 Wentworth Street North. Application requires the submission of a servicing drawing along with the current applicable application fee. The application review fee, as noted above, is not applicable to these applications. Submitted drawings will be reviewed and approved by the Development Engineering Approvals Section prior to permit issuance.

Permits for single family homes are also required and are issued by the City of Hamilton **Building Services Division**. As servicing designs for these dwellings generally follow a set standard or were previously dealt with under a Plan of Subdivision, servicing drawings are not required.

It is understood that all servicing systems vary to some degree therefore the following represents the basic requirements for the review of sewer/water drawings to be undertaken. Specific modifications and/or additions to the drawings may be requested by the Development Engineering Approvals Section to ensure that the proposed system will meet the minimum standards for permit issuance. Failure to include this basic information may result in the drawings being rejected or processing of the drawings being delayed.

After review of the preliminary servicing drawing, the applicant/owner will be requested to make all necessary revisions and resubmit 5 copies of the completed plan for final review, processing and costing of the permit.

Upon notification of the Servicing Plans approval, and prior to commencing the works, a Servicing Permit, and Water Meter Permit, as applicable, must be obtained from the Development Engineering Approvals Section, 6th Floor City Hall, 71 Main Street West, Hamilton, between the hours of 8:30 a.m. and 4:30 p.m., excluding weekends and holidays. For Permits related to private property works only, the Owner or their designate may obtain the Permit. Permits for projects, which include works within the municipal road allowance, may only be obtained by the Owner's contractor, bonded with the City of Hamilton. An Excavation Permit in addition to the Servicing Permit will be issued for these road allowance works. The current cost of an Excavation Permit is **\$593.35** (HST exempt) with the cost of the Servicing Permit/Water Meter Permit being based on the formula sheet in Appendix "B", attached.

Where applicable, permits for the installation of water meters will also be issued in conjunction with the Servicing Permit, and their cost is based on the size of meter requested by the applicant/owner.

All water meters, paid for by the applicant/owner under a Meter Permit, are installed by the City of Hamilton contractor, by appointment, and upon notification that all applicable plumbing, including spacer issued by the City of Hamilton, have been installed and inspected to the City's satisfaction. All meters remain under the ownership of the City of Hamilton. It should be noted that the Development Engineering Approvals Section issues Water Meter Permits, including the master and satellite (secondary) meters for all commercial, industrial, institutional developments. For multi-residential developments (where applicable; see below) the Development Engineering Approvals Section will issue the Permit for the master meter only, with all other satellite (secondary) meters being issued through the City of Hamilton Building Services Division, 3rd Floor City Hall, 71 Main Street West, Hamilton. Water meters for single family homes will also be issued through the Building Services Division.

In accordance with the "Industrial, Commercial, Institutional (ICI) and Multiple Unit Residential Water Metering Policy (06-006) all **ICI** developments require a water meter (master or independent) for the entire development in addition to a satellite water meter for "each" unit within that development. **Horizontal Multi Unit Residential** developments require an independent water meter within "each" unit; however, a master meter is not required. **Vertical Multi Unit Residential** developments (apartments) require an independent meter for entire development, while "satellite" meters are optional, but subject to the owner entering into an agreement for individual water meters in vertical buildings. See page 7 for definition of "master", "independent" and "satellite" meters, and page 7 and 8 for additional detail respecting meter sizing, installation location etc.

Satellite meters, issued by the City, will only be permitted when installed downstream of a site master meter and sub metering or the installation of satellite meters off satellite meters will not be permitted.

Note that the proposed meter selected for a particular use must meet the specific needs of the development and be to the satisfaction of the City of Hamilton. It is; however, the Owner's responsibility through their Consultant to suggest the meter required from the list of meters available from the City (see Appendix "B"). Also note that not all meters are applicable for all situations, and in the case of magnetic flow meters and turbine meters approval must be received from the Supervisor of Meter Operations prior to application. Use of turbine meters must be supported by flow data.

Backflow prevention is required on all ICI developments and multi residential over 3 stories in accordance with the backflow prevention By-law #10-103 (see page 10, 11 and 12). For more information respecting the backflow prevention program, survey requirements, selection of devices etc. please refer to the respective By-law or contact The City of Hamilton Water and Wastewater Division, Public Works Department at 905 546-2424 X2734. Information can also be obtained through the City of Hamilton web site at:

<http://www.hamilton.ca/operating-business/commercial-water-sewer/backflow-prevention-program>

After receipt of Permit(s) it is the applicant/owner's responsibility to contact the City of Hamilton and request the required sewer and water inspections, and obtain the applicable water meter spacer necessary for proper meter installation etc. Requests for sewer/water inspection shall be made 48 hours in advance through the Planning and Economic Development Department, Growth Management Division, Development Engineering Construction Section at 546-2424 X7860. For after-hours inspection an additional fee of \$412.45 (minimum 4 hours) is payable in addition to the Permit Fee (fee includes 13% HST). Requests for after-hours inspection must be made during regular business hours 9:00 am to 5:00 pm and are subject to staff availability.

To obtain the appropriately sized meter spacer for meter installation the Meter Permit (original copy) must be taken to Public Works, Hamilton Water Customer Service at 330 Wentworth Street (905 546-4426), where the spacer will be issued along with instructions related to final meter installation

Approval of the servicing drawing is for material acceptability and compliance with municipal and provincial specifications and standards only. Approval and inspection by the City of Hamilton of the works does not certify the line and grade of the works and it is the Owner's responsibility to have their Engineer certify this accordingly.

Servicing drawings approved by the City are valid for Permit issuance for up to one year from the date of the plan's approval, and notification of the applicant/owner. Issuance of Permits after the one-year expiration date will require resubmission of the plan, payment of the applicable servicing review fee, and revision to the plan to reflect current standards etc. as applicable.

Issued Permits, subject to their terms, will be deemed to have lapsed, and will be revoked if construction has been substantially suspended or discontinued for a period more than one year, or has not commenced within six months of the date of issue. All servicing, inspection, review and excavation fees paid are not refundable. Consideration will be given to refunding water meter fees, as applicable, if the required meter is a common stock item or the spacer has not been issued.

Excavation Permits are valid for one year from the date of issue.

City of Hamilton Projects Requiring Servicing

Where a Contractor is hired by a City of Hamilton Department, including Public Works, to construct municipal servicing works tendered by the City and these works require inspection through the Growth Management, Development Engineering Approvals Inspection Section (i.e. projects not completed through the City of Hamilton Capital Works process and inspected by Public Works Inspectors), the Servicing Permit process is applicable, and servicing drawings must be submitted for review and approval by Growth Management, Development Engineering Approvals. All applicable

fees must be paid prior to Permits being issued, and Fee payment is to be worked out between the Contractor and the City Department tendering the project. If the fees are to be paid by the City this can be arranged through internal Department journal transfer. City of Hamilton projects which include road works and are being dealt with under the Servicing Permit process will require that the Contractor be fully bonded with the City of Hamilton, as per standard protocol, regardless if they were hired by the City.

It must be noted that on projects where Growth Management will not be involved due to Public Works staff undertaking the inspections, and where a water meter is required, Growth Management will continue to issue the Permit for this meter as per standard practice for book keeping purposes.

Ministry of Environment, Conservation and Parks (MOECP) Approvals for Storm Systems on Industrial Lands

It is the Ministry's opinion that runoff from lands used for industrial purposes, as defined below, may be contaminated due to the industrial activities taking place on such properties.

The Ministry requires information on the quality of the stormwater runoff from these industrial lands and ensures that if contaminated, the stormwater is transmitted to a facility designed to treat the contaminants.

Definition of 'Industrial Land"- means land used for the production, processing, repair, maintenance or storage of goods or materials, or the processing, storage, transfer or disposal of waste, but does not include land used primarily for the purpose of buying or selling,

- (a) goods or materials other than fuel, or
- (b) services other than vehicle repair services.

Therefore, all applications for Certificates of Approval for storm sewers/stormwater management works under Section 53 of the Ontario Water Resources Act located on industrial land shall be forwarded directly to the Environmental Assessment and Approvals Branch with an Application for Approval of Industrial Sewage Works for review and approval. This includes overland and/or piped runoff directed to a ditch or sewer that leaves the site.

SEWER AND WATER SYSTEM DESIGN REQUIREMENTS (Servicing Drawing Requirements)

SEWER AND WATER SERVICING PLANS (GENERAL):

- 1) Servicing plans should be drawn to a minimum scale of 1:500 (metric only). Please refer to Appendix "A" of this document for a typical example.

- 2) The following information shall be shown on all servicing plans submitted for review:
 - a) Scale of the drawing. Minimum scale to be 1:500.

 - b) A key plan, showing the location of the site in relation to the nearest major intersections. A north arrow must be provided on the plan.

 - c) A legend must be provided on the plan and all items clearly labelled.

 - d) The municipal address of the property. The Owner/applicant **must** ensure that the correct municipal address is provided as incorrect addresses may result in delays in inspection and water meter installation by the City. Please contact 905 545-2424 X4348 to confirm addresses.

 - e) Name of business, property etc.

 - f) Drawing date including any revisions.

 - g) All existing municipal services (i.e. storm and sanitary sewers, watermains, sewer drains and water services, etc.) located within the abutting municipal road allowances, etc. Engineering drawings showing this information may be available from the Public Works Department, Capital Planning & Implementation, Surveys/Technical Services Section, 3rd Floor, Hamilton City Centre, 77 James Street North, Hamilton.

Note: It is the Owners / Applicants responsibility to ensure that the information shown on the plans obtained is accurate. It is recommended that the applicant/owner field check all information.

-
-
-
-
-
-
-
- h) If applicable, all existing water services and sewer drains for a subject property must be shown on the plan. The drawing must indicate which water services and private sewer drains are to be abandoned and/or re-used.

Note: If a water service or sewer drain is to be re-used, the applicant/owner must assure themselves that the existing service is adequate to meet their proposed uses and are in good working condition. Services to be re-used must meet all current City of Hamilton Standards and in the case of sewer drains within the road allowance must be video inspected while a City of Hamilton Sewer Inspector is present (see Item h, page 16).

- i) All existing and proposed structures on the property.
- j) All elevations on the plan (inverts etc.) to be to geodetic datum.
- k) The size and location of all existing and proposed water meters. Water meters in addition to their size and location, must be labelled as either a “master meter”, “independent meter” or “satellite meter”. For definition purposes a “master meter” denotes the sites main meter, and indicates that subsequent meters, or “satellite meters” will be proposed/exist on the sites common water service downstream of this “master meter”. An “independent meter” denotes that it is the only intended meter for that specific water service on a site, and no “satellite” meters are intended on that service line. Sites with more than one independent water service can include all three-meter definitions.

SEWER AND WATER SERVICING PLANS - REQUIREMENTS FOR PROPOSED SYSTEMS:

- 1) All water services and sewer drains are to be connected to the City of Hamilton’s infrastructure are to be designed and installed in accordance with the City of Hamilton Construction and Material Specifications Manual (latest edition), Ministry of the Environment Guidelines (latest edition) and the Ontario Building Code, Part 7. Copies of the City of Hamilton Construction and Materials Specifications Manual are available from the City of Hamilton Public Works Department, 3rd Floor, Hamilton City Centre, 77 James Street North, Hamilton, or on the City Web Site at:

<http://www.hamilton.ca/develop-property/policies-guidelines/construction-and-material-specifications>

- 2) Reference should also be made to the City of Hamilton “Comprehensive Development Guidelines and Financial Policies Manual”; as applicable, to the servicing of existing lots or lots being redeveloped in whole or part. This document can be viewed at:

<https://www.hamilton.ca/develop-property/policies-guidelines/comprehensive-development-guidelines-and-financial-policies>

WATER SERVICING REQUIREMENTS:

- 1) Water services are to be installed perpendicular to the existing City watermain and straight into the building.
- 2) Water services to be installed with a minimum cover of 1.6 m.
- 3) Minimum horizontal separation between water services and sewer drains and/or municipal sewer mains shall be 2.5 m measured from the closest pipe edge to closest pipe edge. Vertical separation where a water service passes over a sewer drain and/or municipal sewer mains must be a minimum of 0.25m unless greater separation is required to provide for proper bedding and structural support. Water services passing under sewer drains and/or municipal sewer mains must have a separation of 0.5 m

between the invert of the sewer drain and/or municipal sewer main and the crown of the watermain.

It is the design Engineer's responsibility to ensure that all installations reflect the requirements of the City of Hamilton, Ontario Building Code and the Ministry of the Environment's "Watermain Design Criteria for Future Alterations Authorized Under a Drinking Water Works Permit" etc.

Watermain or water service lowering, 100 to 300mm pipe, to be as per **WM-204.13**. Water service deflections at joints, where feasible, should be less than or equal to 50 % of the values recommended by the manufacturer, as per City Form 400.

- 4) Water service and watermain bedding and cover material to be installed as per **WM-200.01** (concrete and PVC watermains and services) and WM-200.02 (ductile iron watermains and services) with Granular "A" for both bedding and cover. Bedding and cover for small diameter water services (i.e. 50 mm and under to be as per **WM-200.01** with Granular "D" for both bedding and cover. Water services to be installed with a minimum cover of 1.6 m.
- 5) Proposed Water System Materials:
 - a) For water service and watermains greater than 50 mm, the proposed water service both within the road allowance and on private property may either be ductile iron (class 52), or PVC rated at minimum working pressure of 150 psi (DR18). Water services 50 mm and less must be type k copper within the road allowance, however, PVC or an alternate material approved for use under the Ontario Building Code may be used on private property, if it is rated at a minimum 150psi. **Note: Service sizes of 75mm are not permitted for connection to municipal watermains.**
 - b) If PVC pipe is to be utilized the following note must be included on the plan:
 - c) "PVC water service/main material, cathodic protection, tracer wire etc. must be as per Form 400."
- 6) Size of the water service being proposed, including water meter(s) size and installation location (see item (g) page 9) must be noted on the plan. Water service size and meter size/type (based on meters available from City) is to be determined by the Applicant/Owner in consultation with their Consultant. Application of a specific meter type will be subject to verification by the City of Hamilton, and in some cases require submission of proposed water usage data etc. In the case of magnetic flow meters and turbine meters approval must be received from the Supervisor of Meter Operations prior to any Permit for these meters being issued.

Proposed meter(s) will be supplied and installed by the City and are available in several types and sizes to suit specific applications. Please refer to Appendix "B" at the end of this document for a list of meter types and their cost. It is the Owner/applicant's responsibility through their Consultant to ensure that the appropriate type meter is chosen (see page 3).

The Owner/Applicant may wish to discuss the application of certain meter types with Growth Management or City of Hamilton Public Works, Hamilton Water at 905-546-2424 prior to finalizing their application for Permit. **Note: 75 mm water meters are not a standard City of Hamilton size and are not permitted for use as a City designated water meter.**

- 7) In accordance with City Water **By-law # R84-026**, minimum water service size for connections directly off municipal watermains is 20 mm. However, in accordance with the Ontario Building Code, and based on usage calculations, new single-family homes will require a minimum 25mm water service.
- 8) If the applicant/owner intends to reuse an existing water service it must be in good working condition, of acceptable material (re-use of lead services is not permitted) and adequately sized to handle the requirements of the site. If the existing service to be reused has a nominal size of 12mm or 16mm, which is less than the standard 20mm By-law requirement, and a service flow exceeding 0.3 l/s, then the applicant/owner may connect to it or reuse it, subject to them entering into a “Special Private Water Service Agreement” with the City and registering this Agreement on title.
- 9) No proposed connection shall be made to a City watermain having a diameter larger than the watermain, except that of a fire service, which may be increased above the watermain size. This exception applies to 150mm municipal watermains only, where the proposed fire service can be upsized to a 200mm.
- 10) A water meter must be installed on all domestic water services at the service point of entry to the building, or alternate permitted location subject to the Waterworks By-law **R84-026** (see below *). Internal water meter installations to be as per **WM-211.03** (single residential) and **WM-210** (commercial/institutional and multi-residential) with meter installed at floor level.

ICI Developments – “master” water meter required, in addition to a “satellite” water meter within each unit of the development.

Horizontal Multi-Unit Residential – “independent” water meter required in each unit, “master” meter not required.

Vertical Multi-Unit Residential – “master” water meter required, “satellite” meters for each unit optional.

(See page 6 Item (k) of this document for definitions of “master”, “independent”, and “satellite” meter)

- 11) In vertical multi-unit buildings, where more than one meter is being proposed, the meters must be installed to all applicable standards in a common area on the floor level that the meters are servicing.
- 12) *If the effective length of the proposed water service, from the property line to the point where the service pipe is to be introduced into the building, exceeds 60m, or if the proposed water service is not laid in a straight line and at a right angle to the watermain, as nearly as practicable in the opinion of the Senior Director of Growth Management (as

a general practise a maximum of two bends are allowed in the service pipe to enter the building), the required water meter must be installed in a properly drained chamber on private property just inside the property line. For 16 mm to 50 mm meter installation in chambers the proposed chamber and piping layout must be to City standard, WM-209 (commercial uses) and WM-209.01 (single family residential uses). Standard WM-234.01 to be used for 100mm to 250 mm meter installations in a chamber.

- 13) If the applicant/owner is proposing a combined fire and domestic service, and a chamber is required, due to the length or layout of the service, a fire meter (type of meter) must be utilized. As no City of Hamilton standard specification meter chamber is currently available for the larger fire type meters, WM-234.01, modified, with the by-pass piping external to the chamber, is acceptable. Currently separate independent fire services are not required to be metered.
- 14) For information respecting issuance of Water Meter Permits please refer to page 3 of this document.
- 15) In accordance with the City of Hamilton Backflow Prevention **By-law #10-103**, a backflow prevention device must be installed and maintained on all existing and/or proposed water services to industrial, commercial, institutional properties and multi-residential buildings over the height of 3 stories to prevent the flow of contaminants into the municipal drinking water system.
- 16) Backflow prevention devices must be installed no more than 3.0m downstream of a properties "master" water meter, or in the case of a fire protection system, where the fire protection service enters the building, in a location acceptable to the City.
- 17) For proposed water services that are 50mm or greater and where the effective length exceeds 60m or has more than two bends, due to the Water By-Law requirements, the watermeter and backflow prevention device must be constructed within an appropriate enclosure at the property line, entirely within the private property. The Owner / Applicant shall determine the type of enclosure, as described within the By-law during the second detailed submission by submitting the **Backflow Hazard Survey Form**, certified by a qualified Surveyor from the following link:

<https://www.hamilton.ca/sites/default/files/media/browser/2021-06-28/backflow-web-list-2021-10-26.pdf>

In the case where a water service is 38mm and smaller, the survey that is required will be a **Self-Assessed Cross Connection Survey** and may be completed by the property owner and if the property is deemed to be a **high hazard property** then a Backflow Hazard Survey Form will apply. If the property is deemed to be a moderate hazard the property may not be required to install a device at this time. The decision for compliance of any property submitting a Self-Assessed Cross Connection Survey will be made by Public Works.

18) If installed within underground chambers, and in order to permit future “ease of change out” in the cases where a properties main use is modified from a moderate to high risk, the City is requiring that all backflow devices, in situations utilizing a meter in a chamber have the backflow device housed in an above ground secure and heated storage unit, subject to a **Building Permit** and the **Zoning By-Law requirements**. Should the Owner wish to utilize a chamber in lieu of the above ground storage unit, and **only in situations where the backflow device is suitable for underground installation**, the City will require that the Owner’s Consultant complete a **Backflow Hazard Survey Form** and provide sufficient details that the chosen device reflects the needs of the site today and in the future based on the zoning of the site. In addition, the following **undertaking shall be signed** by the Owner and **included on the servicing plan**, prior to approval:

ACKNOWLEDGEMENT

TO: **CITY OF HAMILTON**
Attention: Development Engineering Approvals
71 Main Street West
Hamilton, ON L8P 4Y5

FROM: _____ (the “Owner”)

RE: **Agreement with Backflow Prevention Future Change out Requirements – (Subject Site Address) (City Application Number)**

In consideration of the Servicing Permit Application for the subject property formally known as *[Add municipal Address, Hamilton, Ontario]*, I acknowledge and agree with the following:

1. All Backflow Prevention Devices must be selected, installed and maintained in accordance with the City of Hamilton's Backflow Prevention By-law # 10-103, including the manufacturer’s specifications for installation etc., and guidelines set out in the most recent versions of the ‘AWWA Canadian Cross Connection Control Manual’ and the ‘CSA. B64.10 / 07 / B64. 10.1-07 Standards’. In selecting a backflow device for a property, consideration must be given to future possible uses of the site which could result in a higher risk to the municipal drinking water system, thus making the device initially chosen inadequate for the new purpose and requiring future change out at the Owner’s expense.

2. I have no objection to comply with all the City of Hamilton’s requirements to rectify the backflow prevention system, provided the risk to the municipal drinking water system has increased from the subject site, all to the satisfaction of the Manager of Development Engineering Approvals.

3. This Acknowledgment has been signed by me as the owner / applicant of the subject property.

DATED _____ day of _____, 2020.

(INSERT NAME OF CORPORATION IF APPLICABLE)

Per: _____
Printed Name:
Title:
I have the authority to bind the corporation.

- 19) Servicing Plans submitted for Permit must include details of the meter layout and backflow device installation.
- 20) For standard drawings respecting meter installation in combination with backflow protection refer to the following specifications: WM-209.02, WM-209.03, WM-210.01, WM-210.02, WM-210.03, WM-210.04, WM-234.02 and WM-234.03. **Note that not all standards are applicable and/or allowed in every situation, and for application please contact Growth Management Approvals to discuss.**
- 21) Where a fire protection system exists or is proposed within a building, the water service must also be protected against backflow in accordance with the CSA standards, and the backflow device must be either a double check detector assembly or a reduced pressure detector assembly with a detector meter which is capable of measurements in cubic meters.
- 22) The following **note should be included on all plans** submitted for Water Service Permit issuance through the Growth Management Division:

“All Backflow Prevention Devices must be selected, installed and maintained in accordance with the City of Hamilton's Backflow Prevention By-law # 10-103, including the manufacturer's specifications for installation etc., and guidelines set out in the most recent versions of the 'AWWA Canadian Cross Connection Control Manual' and the 'CSA. B64.10 / 07 / B64. 10.1-07 Standards'. In selecting a backflow device for a property, consideration must be given to future possible uses of the site which could result in a higher risk to the municipal drinking water system, thus making the device initially chosen inadequate for the new purpose and requiring future change out at the Owner's expense.”

23) Typical backflow devices and their applications are as follows:

- a) Double check valve assembly (**DCVA**) – **Moderate hazard** domestic water service
- b) Reduced pressure zone assembly (**RP**) – **High hazard** domestic water service

For more information respecting the backflow prevention program, survey requirements, selection of devices etc. please refer to the respective **By-law** or contact The City of Hamilton Water and Wastewater Division, Public Works Department at 905 546-2489. Information can also be obtained through the City of Hamilton web site at:

<http://www.hamilton.ca/operating-business/commercial-water-sewer/backflow-prevention-program>

24) **Connections to the Municipal Watermain:**

Depending on the location of the subject property (needs of local users), the construction of the existing watermain to which the proposed water service is to be connected and the size of the water service, the proposed method of connection will differ. The proposed method of connection will be reviewed and approved by the Planning and Economic Development Department, Growth Management Division at the review stage. Connections to the municipal watermain shall be made by **one of the following methods**.

Water Services greater than 50mm:

- a) Where the City watermain cannot be shut down and/or the watermain is concrete, a tapping valve must be utilized. Tapping sleeve and valve are to be as per **WM-207.05** and as a standard rule, the proposed water service must be one size smaller than the watermain being tapped.
- b) When tapping 100mm to 300mm diameter ductile iron services off 400mm to 600mm diameter municipal watermains, **WM-235** is to be utilized with the chamber omitted. *(Please note that a chamber is no longer required for all tapping situations and the City will be revising its standards accordingly in the near future.)*
- c) If the watermain can be shut down, and it is not concrete, a tee may be used. 100mm to 300mm diameter water service connections using a tee and sleeve are to be as per **WM-207.04**.

Water Services 50mm or less:

- a) A main stop shall be installed as per the City standard. Approved saddles must be utilized.
- b) Piping arrangements are to be as per **WM-207.01** for 19mm to 25mm services.

Watermain Shutdown:

- a) Shutdown of a City watermain will be at the discretion of the City and is subject to the following requirements, which should be noted on the plan:

- b) Maximum 4-hour shutdown of existing main at a time convenient to the City of Hamilton and abutting users.
- c) Contractor to give **48-hour prior notification** using the "City of Hamilton Notice of Shutdown" for all affected areas.
- d) In the event a scheduled shutdown is cancelled by the City of Hamilton, the contractor shall have no claims against the City.

25) **Curb Stops (valves):**

- a) Curb Stop Valves to be installed on all water services at the property line, entirely within the road allowance. Wherever possible curb stops (valves) should be located within the sodded or landscaped areas, which are easily accessible, and outside of the vehicular portion of the site.
- b) For proposed services 100 mm and greater, which will be connected to the municipal watermain on the opposite side of the street of the property being serviced, defined as "long side" servicing, which are more than 5.0 m in length, an additional gate valve must be installed on the service at the municipal main. This is in addition to the valve at the property line and is in accordance with the requirements of Form 400 of the City Construction and Material Specifications Manual
- c) All curb stops (property line valves), 400 mm or greater, regardless of where they are located, either within the sodded/landscaped areas or within a vehicular portion of the site, must be installed within a chamber. For chamber specifications refer to the City Construction and Materials Specifications Manual (latest edition). Curb stops (valves) less than 300 mm to be installed with a box as per WM-202.

26) **Fire Services:**

- a) If a fire service is proposed to a building, the service must be protected against backflow in accordance with the CSA and Ontario Building Code. The backflow device must be installed at the service point of entry and shall be either a double check detector assembly or a reduced pressure detector assembly with a detector meter which is capable of measurements in cubic meters. Reference must be made to the City of Hamilton Backflow Prevention By-law #10-103.
- b) For long or complicated fire service layouts, a check valve (swing type) will be required at the property line, entirely on private property in accordance with **WM-201.05**. This check valve **cannot be a direct bury type** and **must be installed within a chamber** to aid maintenance.

<https://www.hamilton.ca/sites/default/files/media/browser/2014-12-19/construction-material-specifications-standard-watermain-drawings-feb2021.pdf>

- c) Tapping of a domestic water service off a fire service is acceptable; however, the

connection should be made within the road allowance, with separate curb stops provided for both the fire and domestic services within the road allowance.

- d) Where water services are to be looped on a site, check valves are required on the system at the property lines, entirely on private property. Check valves are also required on long fire service runs, with the check valve being installed at the property line, as above. If the looped service is a domestic or combined water service with backflow preventors installed at property line 3m downstream of the master meters as required on services longer than 60m, then this check valve is not required.
- e) Design standards for standard water system components (i.e. hydrants, meter chambers, thrust blocks, valves, piping arrangements etc.)

Note: All water system components are to be as per City of Hamilton Standards or Ontario Provincial Standard Drawing (OPSD). Where a City Standard exists, it shall take precedence over the other standards.

27) The following represents a partial list of the more commonly used standards or major system components specific to City requirements. For a complete list, please refer to the above noted documents.

- a) All hydrants are to be installed as per **WM-203.01** and/or **WM-203.02**, as applicable, and are to be complete with a secondary valve. Secondary valves are to be close coupled to the hydrant in all cases and are to open left. The main hydrant valve is to be open left, with clear markings cast in the bonnet showing an open left directional indicator arrow. Hydrants are to be equipped with 100mm (4 inch) "Storz" pumper nozzles.
- b) Internal water meter installation to be as per **WM-210**. It should be noted that the meter by-pass, as shown on the standard drawing is required in all installations, including Water Filling Stations.
- c) Water meter installations in a chamber are to be as per **WM-209** or **WM-209.01**, as applicable (16mm to 50mm meter) and **WM-234.01** (100mm to 250mm meter). It should be noted that the meter by-pass, as shown on the standard drawing is required in all installations, including Water Filling Stations.
- d) Valve box installation for 100mm to 300mm watermains as per **WM-202**.
- e) Piping arrangement for 100mm to 300mm water service connection, cutting in with tee and sleeve, to be as per **WM-207.04**; Piping arrangement for 100mm to 300mm water service connection with tapping valve and sleeve to be as per **WM-207.05**; Piping arrangement for 100mm to 300mm diameter ductile iron services off 400mm to 600mm diameter municipal watermains with tapping valve and sleeve, to be as per **WM-235**, chamber omitted.

28) All **unused water services** are to be **properly abandoned**. For services 50mm and less the following notes should be included on the plan:

“Water Service Abandonment”

- (i) Close main stop
- (ii) Remove curb stop.
- (iii) Cut and crimp water service at either end.

For water services greater than 50mm, using a tee and sleeve, the tee shall be removed and replaced with a section of pipe and sleeve. The replacement section of pipe shall be of the same material as the existing mainline watermain. Where a tapping valve was used the applicant should contact the City for further direction.

All existing **water meters** on systems to be abandoned **must** be removed and salvaged by the City of Hamilton. The servicing contractor should contact the Water and Wastewater Section, Public Works Department at 905-546-4426 to arrange for the work, and a **note to this effect should be included on the plan.**

- 29) Anchor or thrust blocks are to be installed at all water service elbows, tees, plugs etc. For 300 mm diameter water services and smaller, anchor blocks are to be as per WM-204.01. For water services greater than 300 mm, anchor blocks are to be as per WM-204.02 to WM-204.13 as applicable.
- 30) Inspection and testing of water services and watermains to be to the satisfaction of the City of Hamilton and in accordance with Form 400 of the Construction and Material Specifications Manual (latest edition) and MECP Guidelines.
- 31) Where an existing municipal fire hydrant requires relocation due to interference with proposed driveways or street furniture because of development etc., Growth Management, Development Engineering Approvals staff must be consulted. Hydrant relocation must be such that the new location meets the needs of the development i.e. clearance etc., but more importantly continues to provide adequate coverage to existing development. The Applicant will be required to provide the necessary documentation to confirm adequate coverage, or in some instances provide additional hydrants in conjunction with the relocated hydrant for coverage. Also, a determination will be made at that time who will undertake the works, i.e. either Public Works through their staff, or directly by the Applicant's bonded contractor through the Service Permit process.

Any hydrant to be relocated must meet all current City Standards etc. and be connected off the municipal watermain at 90 degrees. Hydrant relocation will include the removal of the old hydrant lead, valve etc., and will not be permitted using elbows on the existing lead.

- 32) All valves including, but not limited to, line valves, tapping valves, blow offs, hydrant secondary valves (hydrants), large diameter service control valves, are to open left, counterclockwise. For valves which will form part of the City's infrastructure, while generally being captured in the Inspector's notes, the following information must be provided:

- Valve manufacturer
 - Size
 - Type (mechanical joint x mechanical joint, flange x flange, tapping, etc.)
 - Style (butterfly valve or gate valve. If butterfly valve, confirm if “seat on body” disc design, and actuator direction of closure indicator accurate)
 - Confirmed direction of closure (determined above grade prior to installation)
 - Number of turns
 - Year
-

SEWER SERVICING REQUIREMENTS:

- 1) All proposed sewer drains, throughout their length from the municipal sewer main to the building and/or area to be drained are to be laid as straight as possible in a trench at right angle to the main sewer.
- 2) Sewer drains to be installed with a minimum cover of 2.20m at the property line below the final road grade or at such higher elevation only as may be necessitated by the elevation of the main sewer. On private property the minimum cover is to be no less than 1.2m.
- 3) Storm and sanitary flows must be separated wherever possible, and the installation of new combined storm and sanitary drains is not permitted. Refer to item (m) below for details respecting the connection of separate storm and sanitary drains for a development to a combined municipal sewer.
- 4) Minimum horizontal separation between sewer drains and watermains and water services shall be 2.5m. Vertical clearance between crossing sewer drains and watermains or water services shall be a minimum of 0.25m where a watermain or water service passes over a municipal sewer main or sewer drain, and 500mm where a water service/main passes under a municipal sewer or sewer drain. See Item (c), Page 6 for more detail.
- 5) Proposed sewer drain/main inverts must be provided including the slope of the pipe.
- 6) Proposed sanitary and storm sewer mains and sewer drains shall be either; (a) PVC **SDR 28 for 150mm diameter** and **SDR 35 for other sizes**; (b) Class 3 concrete (CSA A257.1-M92).

Ribbed or profile pipe is no longer permitted for sanitary or storm use, including sewer drains and catch basin leads.

It is recommended that PVC pipe not be used where it will be exposed to contaminated soils and in industrial/heavy commercial areas where it may encounter materials detrimental to the PVC material.

- 7) Sewer drain and main bedding, cover and backfill for flexible pipe to be as per **OPSD**

802.010 with Granular “A” for both the bedding and cover. Reference however should be made to the OPSD standards for alternate bedding and backfill specifications as determined by the proposed pipe material and excavation conditions.

- 8) Minimum size of storm and sanitary sewer drains located within the road allowance to be 150mm. On private property minimum size in accordance with the **Ontario Building Code** is 100mm.

No person is to install any sewer drain that is of capacity, in the opinion of the Senior Director of Growth Management or their designate, less than adequate, or of a diameter less than that of the building drain.

It is the applicant/owner's responsibility to design the sewer drain system to handle the needs of the site, subject to and in accordance with City of Hamilton standards and By-laws.

Reuse of a portion of a site's existing sewer system is permitted subject to the above criteria and sewer condition. On private property it is the Owner's responsibility to assure themselves that existing sewer drains to be reused i.e. extended and/or connected to under Service Permit, are in good physical condition, and any reuse of these sewers is at the Owner's sole risk and responsibility. Within the road allowance and/or municipal easements, sewer drains (sewer laterals) to be reused must be video inspected, while the City of Hamilton Sewer Inspector is present to determine condition and approve re-use.

The Owner is responsible for making all arrangements with their private video inspection contractor along with payment of an inspection fee of \$519.80 (fee includes 13% HST) to the City of Hamilton, payable on the 6th Floor Hamilton City Hall. Sewer laterals deemed to be in poor condition or not meeting City standards must be replaced/repared at the Owner's cost to the City's satisfaction. The following note must be included on the plan where sewers on private property or sewer laterals within the road allowance etc. are intended to be reused.

Note: The reuse of existing sewers on private property is at the Owner's sole risk and responsibility. Sewer laterals within the municipal road allowance or within municipal easements may be reused if in good working condition, meet by-law requirements and are of adequate capacity to meet the requirements of the site. The Owner or their Contractor is responsible for having the lateral to be reused video inspected while the City of Hamilton Sewer Inspector is present. Contact Planning and Economic Development Department, Growth Management Division, Development Engineering Construction Section at (905)546-2424 X7860 to arrange for an inspection.

Should an existing sewer drain on private property, intended to be reused, either fail during construction or after completion of the proposed works, the City will not be responsible, and the Owner is required to obtain additional Permits etc. to undertake

replacement of the failed sections.

Re-use of sewer drains in cases requiring a new separate storm or sanitary drain i.e. existing combined systems, will only be permitted where feasible, and where the installation of the new service will not compromise or damage the existing service.

“All existing unused sewer drains servicing a property being redeveloped, in whole or in part, must be either removed from municipal property (i.e. road allowance etc., with an appropriate repair to the municipal sewer main to which they connect), and removed from private property, **or**, alternatively, unused sewer drains may be abandoned in accordance with City minimum requirements i.e. trenchless abandonment by filling the lateral with grout within the entire ROW. Appropriate notes must be included on the plan submitted for Permit.”

9) The City's **minimum and maximum** design requirements for **velocities** in sewer and drains is as follows:

- Minimum allowable velocity **0.75m/s for sanitary sewers** and **0.90m/s for storm sewers**
- Maximum allowable velocity **2.75m/s for sanitary sewers** and **3.65m/s for storm sewers**

10) **Maintenance Holes:**

- a) Are required at all changes in pipe size, changes in pipe direction, ends of pipe runs and as cleanouts. Maximum spacing of maintenance holes is 120m for pipes 200mm to 1050mm and 150m for pipes 1200mm and larger. In accordance with the “Ontario Building Code” a maintenance hole is also required within the first 30m after the pipe exits the building.
- b) For pipe sizes 200 mm or greater, in accordance with the “Ontario Building Code”, all required cleanouts shall be maintenance holes. For pipe sizes less than 200 mm cleanouts may be substituted for maintenance holes.
- c) For a more complete description of the appropriate applications of cleanouts / maintenance holes please refer to Section 7.4.7, ‘Cleanouts’, “The Ontario Building Code”.
- d) For commercial, institutional and industrial developments a maintenance hole is required on all storm and sanitary sewer services and must be installed on private property, as close as possible to the property line. The maintenance hole(s) are required for inspection purposes and to permit the City to sample sewer discharge. The inspection maintenance hole(s) are a requirement of the City of Hamilton’s By-law # 14-090, “To regulate the Discharge of any Matter into the Sewer Works, including the Sanitary, Combined and Storm Sewer Systems of the City of Hamilton”, and would be in addition to all other maintenance holes on the system required by

the Ontario Building Code, City Standards etc.

- e) Maintenance holes are to be as per OPSD standards and are to be sumpleless. A partial list is noted in **item number 49** below.
 - f) Catch basin maintenance holes (CBMH) are permitted for use on private property where the system outlets to separate storm sewers and where storm water quality control, is provided on-site. CBMH's are not permitted on combined systems due to the increased potential for sewer gas transmission, which would normally be reduced/prevented using a separate CB complete with goss trap (**SEW-304**) and where quality control is not provided as the CB with goss trap helps to prevent larger debris from entering the municipal system. CBMH's are to be sumpleless and are to be constructed to OPSD standards including all grates, steps etc.
- 11) A **drop structure** is required at all manholes where there is a drop of greater than 600mm between the invert of the upstream pipe and the invert of the downstream pipe and is to be as per **OPSD 1003.010**. Generally, the size of the drop pipe shall be one size smaller than the connecting sewer drain, minimum size 200mm.
- 12) Catch basins within the City of Hamilton, excluding those within single family residential sodded yards, must be as per **OPSD 705.010 (single)** or **OPSD 705.020 (double)** and must be modified with a goss trap as per **SEW-304**. All private property catch basins are to have a **minimum lead size of 200mm for a single** and **250mm for a double catch basin**. Catch basins are to include a minimum 600mm sump. Residential single-family yard catch basins are to be as per the applicable OPSD standard, but do not require the goss traps, and are to be sumpleless.
- 13) Every connection to a municipal sewer main must be by proper "T" or "Y" fittings. Saddles may only be used where approved by the Senior Director of Growth Management or their designate, and in accordance with the approved sewer products list, "City of Hamilton Construction and Material Specifications Manual" latest edition.

For proposed sewer drain that are greater than or equal to 300 mm, a maintenance hole must be provided at the junction with the municipal sewer.

As the construction of combined storm and sanitary sewer drains and municipal sewer mains is no longer permitted, and where a site requires both storm and sanitary drains to facilitate development, and only a combined municipal sewer main exists, the sewer drains, if identical in size must be connected with a "Y", as per SEW-303, within the road allowance, prior to the pipe riser. This layout facilitates easy separation of the storm and sanitary flows when future separate municipal storm and/or sanitary sewer mains are constructed. If the proposed sewer drains are not of equal size, separate independent connections are required to the municipal combined sewer.

14) **Oil Grit Separators:**

In accordance with the Ontario Building Code, Section 7.4.4.3, "Interceptors" (oil and grit) are required in the following situations.

- a) Where a fixture that discharges sewage that includes grease located in a public kitchen or restaurant or in an institutional occupancy, a grease interceptor shall be installed.
- b) Where the discharge from a fixture may contain oil or gasoline, an oil interceptor shall be installed.
- c) Where a fixture discharges sand, grit or similar materials, an interceptor designed for the purposes of trapping such discharges shall be installed.
- d) Every interceptor shall have sufficient capacity to perform the service for which it is provided. The applicant should refer to Article 7.5.4.2, Ontario Building Code, for venting requirements for oil interceptors.
- e) An onsite constructed interceptor shall be constructed to the requirements of a manufactured interceptor.

In accordance with the "City of Hamilton Criteria and Guidelines for Stormwater Infrastructure" and the City Sewer Discharge By-law 14-090, an appropriate treatment train is required for all storm water discharges to the City sewer system from commercial/industrial/institutional parking areas and areas at risk of surface run-off contamination. Discharges to the sewer system must be in accordance with the By-law and the parameter limits as outlined in the By-law's schedules. In the case of discharges to the municipal storm sewer main, an appropriately sized oil/grit separator (OGS unit) shall be used in conjunction with low impact development (LID) techniques etc. to provide for an appropriate "treatment train".

For storm discharges to combined municipals sewer mains the discharge parameters must not be exceeded, and a combination of treatment methods may be adopted including OGS and LID.

- 15) Where "on site" **Storm Water Quantity Control** is required the design shall be in accordance with the "City of Hamilton Criteria and Guidelines for Stormwater Infrastructure Design" and the "City of Hamilton Storm Drainage Policy". Throttling of flows to the City sewer main shall be through the use of permanently fixed orifice tubes and orifice plates. Removable orifice plates will not be considered.

16) **Design Standards for System Components** (catch basins, manholes, etc.):

- a) All system components are to be either to City of Hamilton standards or OPSD standards. Where a City standard exists, it shall be used in place of the OPSD standard.
- b) The following represents a partial list of the more commonly used or major system

components, and items specific to the City of Hamilton requirements. For a complete list, please refer to the above noted documents.

- c) All private property catch basins for **ICI Developments** are to have a minimum storm sewer size of 200mm for a single catchbasin (**OPSD 705.010**) and 250mm for a double catchbasins (**OPSD 705.020** with goss trap as per **SEW-304**).
 - d) All private property catchbasins for **Single Family Residential** rear yard catchbasins are to have a minimum storm sewer size of **250mm (OPSD 705.010)** with a **Beehive Grate** as per the applicable OPSD standard, but do not require the goss traps and are to be sumpluss. The rear yard catchbasin sewer shall be a minimum 0.6m set back from the property line.
- Maintenance holes **1200 mm diameter** to be as per **OPSD 701.010** (with no sumps)
 - Maintenance holes **1500 mm diameter** to be as per **OPSD 701.011** (with no sumps)
 - Maintenance holes **1800 mm diameter** to be as per **OPSD 701.012** (with no sumps)
 - Maintenance holes **2400 mm diameter** to be as per **OPSD 701.013** (with no sumps)
-

GENERAL:

In addition to the general notes required on a drawing to cover the previously noted items the following **general notes must also be added to the plan.**

- 1) All services to be installed as per City of Hamilton Construction and Material Specifications Manual (latest edition) and Ministry of the Environment Guidelines (latest edition).
- 2) Minimum horizontal separation between water services/mains and sewer drains and municipal sewer mains shall be 2.5m measured from the closest pipe edge to closest pipe edge. Vertical separation where water service/main passes over a sewer drain or municipal sewer main must be a minimum of 0.25m unless greater separation is required to provide for proper bedding and structural support. Water services/mains passing under sewer drains or municipal sewer mains must have a separation of 0.5m between the invert of the sewer main/drain and the crown of the water service / main.

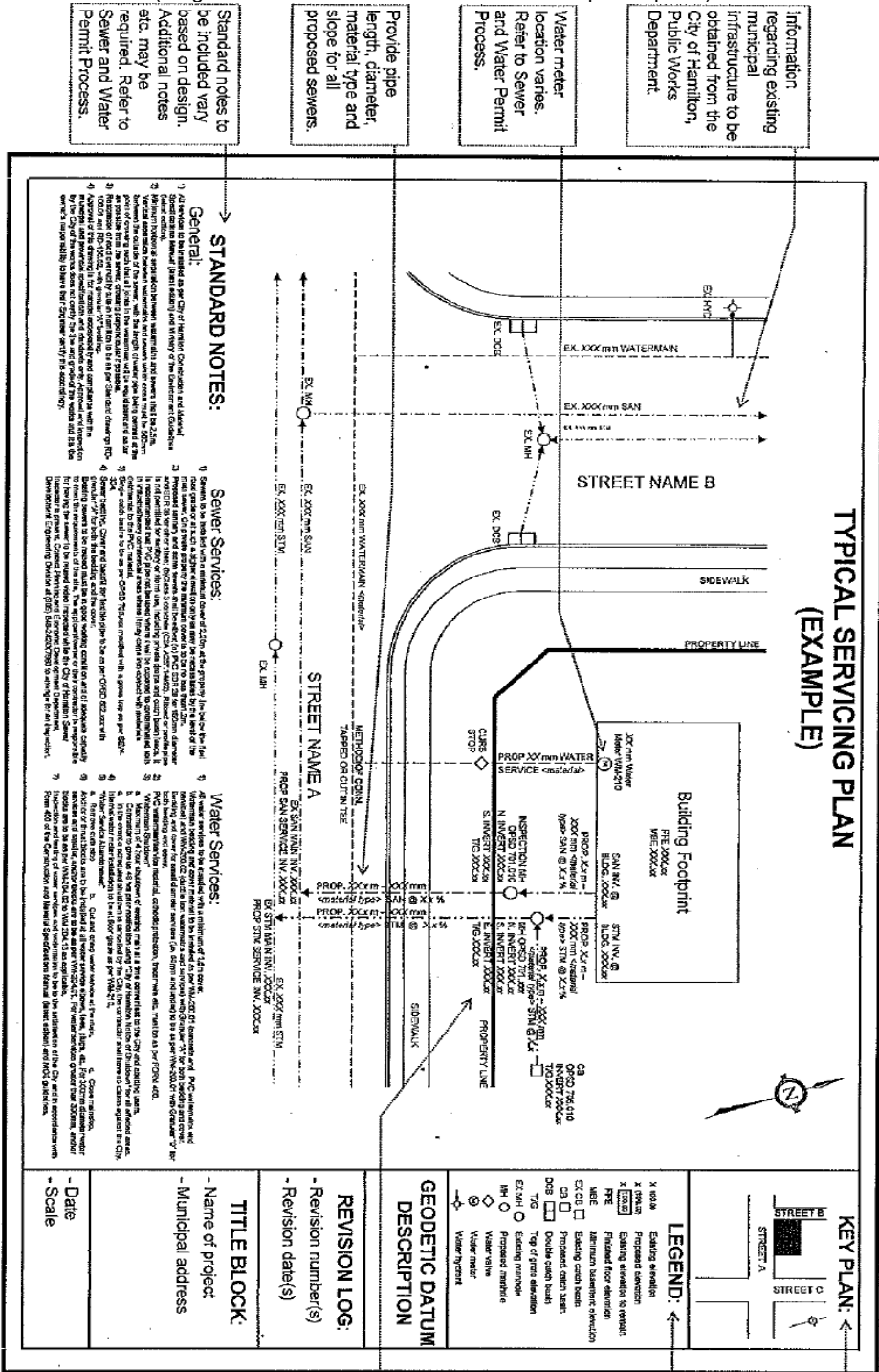
All water services to be installed with a minimum of 1.6m cover. Sewer drains to be installed with a minimum cover of 2.20m at the property line below the final road grade or at such higher elevation only as may be necessitated by the level of the main sewer. On private property the minimum cover for sewer drains is to be no less than 1.2m.
- 3) Approval of this drawing is for material acceptability and compliance with municipal and provincial specifications and standards only. Approval and inspection by the City of the works does not certify the line and grade of the works and it is the owner's responsibility to have their Engineer certify this accordingly.
- 4) All Backflow Prevention Devices must be selected, installed and maintained in accordance with the City of Hamilton's Backflow Prevention By-law # 10-103,

including the manufacturer's specifications for installation etc., and guidelines set out in the most recent versions of the 'AWWA Canadian Cross Connection Control Manual' and the 'CSA. B64.10 / 07 / B64. 10.1-07 Standards'. In selecting a backflow device for a property, consideration must be given to future possible uses of the site which could result in a higher risk to the municipal drinking water system, thus making the device initially chosen inadequate for the new purpose and requiring future change out at the Owner's expense.

Should there be any questions or clarification required please contact the Growth Management Division, Development Engineering Approvals Section at (905) 546-2424 x4147 and you will be directed to the appropriate Staff member to answer your inquiry.

Appendix "A"

(Larger text version of this document available upon request.)



Information regarding existing municipal infrastructure to be obtained from the City of Hamilton, Public Works Department.

Water meter location varies. Refer to Sewer and Water Permit Process.

Provide pipe length, diameter, material type and slope for all proposed sewers.

Standard notes to be included vary based on design. Additional notes etc. may be required. Refer to Sewer and Water Permit Process.

Key plan shows location of site in relation to the nearest major intersection.

Legend describes all symbols and acronyms on the plan.

Manhole types and inverts may instead be given in a MH schedule.

Appendix "B"
Servicing Review/Permit Cost Fees (2021)

The following formulae are used in calculating cost of Sewer/Water Permits for external building services and Water Meter Permit costs. These Permits are in addition to Building Permits which cover internal building servicing etc.

1. **Drawing Review Fee** = \$900.00 (small servicing project) or \$1,785.00 (large servicing project)
(paid at first submission of plans or resubmission of revised plans after permit issued, amount of fee determined based on initial application review and consultation) (fees HST exempt)
2. **Sewer Permit Cost** = Service Permit Administration Fee (One fee charged if sewer and water included on same permit) + Inspection Testing Fee + Service Length Cost
3. **Water Permit Cost** = Service Permit Administration Fee (One fee charged if sewer and water included on same permit) + Inspection Testing Fee + Service Length Cost + Water Construction Cost (Applied to servicing of properties with no existing metered service)
4. **Water Meter Permit Cost** = Cost of meter (based on size)
(Permit cost, see page two of Appendix "B", includes inspection, water meter and remote reading device installed by City forces. All other associated plumbing, including spacer installation (to be supplied by City), to be completed by Owner's Contractor.)
5. **Excavation Permit Cost** = Flat Fee of \$617.41 (Applicable where road works required. Terms of Excavation Permit apply.)
6. **Total Servicing Permit Cost** = Sewer Permit Cost + Water Permit Cost + Excavation Permit Cost (Where applicable)
7. **After Hours Inspection** = \$429.40 (Minimum 4 hours, request must be made during normal business hours, fee in addition to regular permit fees) (fee includes 13% HST)
8. **Inspection Fee for re-use of existing sewer service** = \$542.40 (Owner to arrange for private video of service) (fee includes 13% HST)

Breakdown of individual fees for above formulae 2, 3 and 4

Service Permit Administration Fee = \$209.05 (fee includes 13% HST)

Inspection Testing Fee (sewer and water) = \$638.45 for services less than 100 mm dia. or \$796.65 for larger services (water services less than 50 mm no charge) (fees include 13% HST)

Service Length Cost = **Total linear length of private service from municipal service main to within 1.0 m of structure face** (includes all service laterals for multi-unit developments) X \$11.30/m (fee includes 13% HST)

Excavation Permit Cost = \$617.41

Water Construction Cost:

Hamilton City Council has approved a new policy for the commencement of water and wastewater fees and charges associated with new development construction. For all ICI and multi residential development applications submitted on or after May 1, 2020, construction water fees will no longer be applied.

The commencement of water and wastewater billings will occur on a non-metered / flat rate basis at the time when the water service is activated for the property. The flat rate pricing structure is incremental

based on the size of the meter as identified on the water meter permit.

If the water meter is not installed at the time of the plumbing inspection phase of the Building Permit process, the billing will change to triple flat rate until the meter has been installed. The fees are collected as part of the Building Permit process by the Building Department.

Cost of meter =	16 mm - \$359.70
	20 mm - \$404.60
	21 mm - \$404.60 (same as 20 mm meter, above, but is manufactured with 25 mm tail ends for ease of plumbing when connecting to 25 mm service lines – RESIDENTIAL USE ONLY)
	25 mm - \$559.40
	38 mm - \$905.08
	50 mm (displacement) - \$1,218.80
	50 mm (turbine) – \$1,409.67 *
	50 mm (compound) - \$3,316.40
	100 mm (turbine) - \$3,870.13 *
	100 mm (compound) - \$5,304.84
	100 mm (fire service turbine) - \$6,759.21 *
	100 mm (fire service compound) - \$8,787.29
	100 mm (magnetic flow meter) - \$9,067.33 *
	100 mm (fire rated magnetic flow meter) - \$9,472.19 *
	150 mm (turbine) - \$7,608.67 *
	150 mm (compound) - \$11,495.85
	150 mm (fire service turbine) - \$11,235.65 *
	150 mm (magnetic flow meter) - \$11,396.47 *
	150 mm (fire rated magnetic flow meter) - \$12,566.10 *
	150 mm (fire service compound) - \$14,215.97
	200 mm (turbine) - \$9,187.68*
	200 mm (compound) - \$12,344.57
	200 mm (magnetic flow meter) - \$12,268.08 *
	200 mm (fire rated magnetic flow meter) - \$13,407.34 *
	200 mm (fire service turbine) - \$14,437.52 *
	200 mm (fire service compound) - \$19,450.06
	250 mm (turbine) - \$15,785.99 *
	250 mm (magnetic flow meter) - \$14,686.07 *
	250 mm (fire rated magnetic flow meter) - \$17,382.96 *
	250 mm (fire service turbine) - \$19,673.87 *
	250 mm (fire service compound) - \$25,297.11
	Radio Remote Read Installation - \$217.59

HST is not applicable to the above meter fees

* "Magnetic Flow Type Meters and turbine meters" must be approved by Supervisor of Meter Operations.

To choose the appropriate meter for a specific application the Owner/applicant should contact their Plumber/Mechanical Contractor and/or Hamilton Public Works, Hamilton Water at 905 546-4426.

Water Meter Removal Fee

Note: Cost to remove a meter prior to the building being demolished and/or the water service being decommissioned or abandoned. Failure to have the meter removed prior to the building being demolished will incur a meter replacement cost charge. *Does not include a turn water off fee, which is required and charged separately as per Section 14 of this schedule.*

16 mm Displacement - \$127.54
20 mm Displacement - \$127.54
21 mm Displacement - \$122.54 (same as 20 mm meter, above, but is manufactured with 25 mm tail ends for ease of plumbing when connecting to 25 mm service lines – RESIDENTIAL USE ONLY)
25 mm Displacement - \$127.54
38 mm – 250 mm Meters – Cost+ 10% OH **
** Cost depends on size, labour, and meter location

13% HST is included in above fees

Meter costs not specifically addressed in the schedule will be invoiced at Actual Cost plus overhead.
For general Meter Inquiries, please call (905) 546-4426 between 8:30 am and 4:30 pm.