

## Chapter 6

# Construction Requirements

### **Scope**

These requirements cover work performed by the Applicant within the City of Hamilton streets and describe the procedures to be followed before, during and after construction work in undertaken.

### **Insurance**

Liability insurance for the construction, operation and maintenance of plant shall be provided as set out in the authority or agreement under which the Applicant occupies the right-of-way.

### **Site Meetings**

Prior to the start of work the City of Hamilton may contact the representative specified on the permit as may be required to schedule a site meeting. As a minimum, the site meeting must be attended by at least one representative directly employed by the Applicant and not solely by the Applicant's designated contractor.

### **Perimeter Warning Signs**

Based on the impact to traffic and area residents, at the sole discretion of the General Manager of Public Works or designate, acting reasonably, advance notice perimeter warning signs may be required. The General Manager Public Works or designate shall identify the requirement for such signs at the time of the site pre-construction meeting. Where such signs are required, the signs shall be manufactured and installed by the City of Hamilton to the satisfaction of the General Manager of Public Works or designate at the Applicant's cost. Typically, two weeks are required to manufacture and install the signs after the decision that the advance notice signs

are required. Work shall not commence until the perimeter warning signs have been in place for at least one week.

Where the Applicant is planning work that will extend over a long period or where it is anticipated that the work will cause major disruption to traffic or residents, the Applicant is advised to contact the district permit office as soon as possible to make arrangements to assess the requirements for signage.

### **Scheduling**

To minimise disruption to vehicular traffic, the General Manager of Public Works or designate may, in its sole discretion, direct the Applicant to alter the start date of construction. In general, construction activity will not be permitted to occur simultaneously on parallel adjacent arterial roads or collector roads. The Applicant will be notified by the General Manager Public Works or designate of a conflict with other work, and the requirement to adjust their start date to a mutually agreeable date, at the pre-construction site meeting.

Where such conflicts arise, the General Manager will work with the affected Applicants to coordinate a mutually agreeable schedule. All instances will be evaluated on a case-by-case basis; however, precedence will generally be given to the first Applicant to hold a site meeting and provide a firm start date to the General Manager.

### **Locates and Protection of Plant**

Prior to the commencement of any excavation, the Applicant shall obtain locates from all owners of underground plant in the work area to determine the location of all such plant and shall comply with any standards and instructions from the plant owners when working near their plant and as required by law. The Applicant shall comply with industry best practices when excavating, shoring, piling, backfilling and compacting around existing plant or as directed by the owner of the plant and the General Manager of Public Works or designate.

## **Notification to the City**

The Applicant shall strictly adhere to the notification protocol indicated on the permit. Following completion of the work the Applicant must immediately notify the Permit Office as indicated in [Appendix A, Permit Application Office](#).

## **Resident and Business Notification**

For all non-emergency work, written notification stating the type and location of the proposed installation, duration of construction and phone number of the utility company undertaking the work shall be delivered to all residences and businesses abutting the work zone a minimum of **48 hours** prior to commencement of work.

When the duration of the project is expected to be greater than seven calendar days, or if access to residences and businesses will be restricted in any way, the Applicant shall notify the local councillor and, where applicable, the Business Improvement Area (BIA) office at least **10 business days** prior to commencement of construction. A copy of this notification shall be forwarded to the permit office.

A listing of Hamilton's BIAs can be found at:

[www.hamilton.ca/CityDepartments/CorporateServices/Clerks/BIA\\_subcommitteelisting.htm](http://www.hamilton.ca/CityDepartments/CorporateServices/Clerks/BIA_subcommitteelisting.htm).

## **Documents Required to be On-Site**

The Applicant shall ensure that, as a minimum, copies of the following documents are kept on-site at all times and shall make these documents available for viewing immediately upon being requested to do so by to the General Manager or the Hamilton Police Service:

- Locate Forms
- Approved Permits
- Approved Drawings

## **Working Hours**

The Applicant shall comply with the City of Hamilton's [Noise Bylaw No. 11-285](#) of the Hamilton Municipal Code available on the City of Hamilton website, [www.hamilton.ca](http://www.hamilton.ca), under the Frequently Requested By-laws page.

In addition, the Applicant shall ensure the following:

- Equipment shall be maintained in a good working condition that does not leak fluids and prevents unnecessary noise, including but not limited to proper muffler systems, properly secured components and the lubrication of all moving parts.
- Idling of service equipment shall be restricted to the minimum necessary for the proper performance of the specified work.

Work may only take place during the times specified on the permit or as specified by General Manager. The Applicant should note that the restrictions may vary for different directions of travel on the same street and that work may be prohibited at specific times and dates in order to co-ordinate with or avoid other work or events in the area.

At most locations, typical working hours will be between the hours of 7 a.m.–7 p.m. from Monday to Friday and from 9 a.m.–7 p.m. on Saturday. Typically, no work will be permitted on Sunday or statutory holidays. On arterial roads, work will typically be limited to the hours of 9:30 a.m.–3:30 p.m. Specific exceptions to these typical times may be granted or required, at the sole discretion of the General Manager, depending on the circumstances of the individual work.

## **Project Information Sign**

For work authorized under a street occupation permit, including site services permits, on any portion of the right-of-way, regardless of duration, or when material and equipment are left on-site unattended for any period of time, project information signs shall be prominently displayed. Please refer to [Appendix N, Project Information Sign](#).

A project information sign will not be required for work authorized under a street occupation permit only when all of the following conditions are met:

- A work vehicle is parked within 10.0 m of the work area, bearing a sign identifying the name and corporate logo of the Applicant, their designated contractor undertaking the work, where applicable, and a 24 hour emergency contact phone number.
- The emergency contact phone number shall connect the caller to an office and contact person that will answer calls 24 hours a day seven days a week. Connection to a voice mail box is not acceptable.
- The site will not be left unattended for any period of time.

### ***Cut Permits***

For work authorized under a cut permit on any portion the right-of-way, regardless of duration, or when material and equipment are left on-site unattended for any period of time, project information signs shall be prominently displayed.

Signs must conform to the requirements of [Appendix N, Project Information Sign](#), and shall clearly identify the name and corporate logo of the Applicant, their designated contractor undertaking the work, where applicable, and a 24 hour emergency contact phone number.

The emergency contact phone number shall connect the caller to an office and contact person that will answer calls 24 hours a day, seven days a week. Connection to a voice mail box is not acceptable.

Signs shall be clearly legible to pedestrians and drivers passing the work site and shall be placed, as a minimum, at each end of a project so that traffic from both directions can easily view the details. For projects that extend across more than one block, additional signs may be required at intermittent intersections crossed by the project.

### **Traffic Control**

The Applicant shall provide, place in service, maintain and remove all of the traffic control devices and certified traffic control person as required by the *Ministry of Transportation Ontario (MTO) Ontario Traffic Manual Book 7*, the *Occupational Health and Safety Act (OHSA)* and *Ontario Regulation 145/00 for Construction Projects*, the *Highway Traffic Act* and all other applicable legislation and City of Hamilton policies.

The Applicant shall also conform to the following minimum requirements:

- The Applicant shall have a copy of the location-specific traffic control plan for the protection of workers and the public on site at all times as per the Ministry of Labour regulations.
- On non-arterial roads, the Applicant may restrict traffic to one lane if a minimum of two certified traffic control persons are provided to ensure safe vehicular travel through the site or as deemed necessary by the General Manager.
- Vehicular access to commercial properties must be maintained at all times for the duration of the work. Any work across commercial driveways shall be done in a manner that will ensure continuous and unimpeded flow of vehicular traffic.
- All sidewalk cuts shall be backfilled or covered with a non-skid surface having sufficient strength to maintain pedestrian traffic and include warning signs for pedestrians.
- **Sidewalks** shall be maintained at a minimum width of **1.5 m** at all times. Where this cannot be achieved, a temporary sidewalk shall be required.
- **Bicycle lanes** shall be maintained at a minimum width of **1.2 m** at all times. Where this cannot be achieved, and where conditions permit, a temporary bicycle lane may be required.
- All open excavations on roads, when not under construction, are to be covered with non-skid steel plating, counter-sunk and set flush with the surface of the pavement. The counter-sunk plate should overlap the cut by no less than 300 mm on all sides. Appropriate signs shall be posted advising of the presence of the plates. The plates must be secured to the pavement and be of sufficient thickness and strength to support the traffic without movement or bouncing. The plates are to be placed on a layer of burlap to avoid any excessive noise. Asphalt mix shall be used to jam the plate tight into the pavement along all edges.
- Where it is not reasonable to cover an open excavation, the Applicant may request permission from the General Manager to leave the excavation uncovered. Where permission to do so has been granted, the excavation shall have the appropriate barriers, fencing and signage as per applicable legislation in addition to any further requirements imposed by the General Manager.
- For a traffic sign removal or relocation, the Applicant must place a request to Traffic Operations at 905-546-2424 ext. 4600 at least 6 weeks in advance of the required removal or relocation. Under no circumstance is the Applicant to remove or relocate any traffic signs.

A static barrier may be permitted to close crosswalks at a signalised intersection depending on the pedestrian and vehicle volumes. This would be discussed at a site meeting. Yellow caution tape is not recognised as an acceptable barrier.

Additional traffic control or signage may be required as directed by the General Manager. The applicant shall be granted a reasonable amount of time to place these additional signs.

### **Access to Site / Inspection**

Authorized representatives of the General Manager, having the required personal protective equipment, shall at all times have access to the work site to monitor the progress of the work to whatever extent they deem appropriate and to determine compliance with this manual, permit requirements and any other instructions issued by an authorized representative of the General Manager. The Applicant is cautioned that lack of such compliance may result in a stop work order being issued or cancellation of the permit and that such violations will be documented and kept on file.

The Applicant shall immediately cease the work or any part thereof when directed to do so, verbally or in writing, by an authorized representative of the General Manager, or any other party having proper jurisdiction. Verbal orders shall be followed by written notification within 24 hours stating the reasons for the order to stop work. The work or affected part thereof shall not resume until any such violation has been rectified to the satisfaction of the General Manager.

### **Paid Duty Officers**

#### ***General***

In addition to complying with the *Ontario Traffic Manual Book 7 –Temporary Conditions (Field Edition)*, the Applicant is required to provide paid duty police officers (PDOs) on site in accordance with the requirements of this document and as stipulated in the Hamilton Police Traffic Service Guidelines for paid duty police, as it is amended.

A *Paid Duty Request* Form can be obtained from any police station or the City of Hamilton Police Central Paid Duty Office at 905-546-4366. The form and the current hourly rates of PDO pay, which are provided in the terms of agreement at the back of the form, are updated once every January of the year.

### ***Determining the Need for a Paid Duty Officer***

The need for PDOs for work on city streets generally follows the criteria below, however this requirement shall be determined on a case-by-case basis.

The actual need for PDOs shall be determined at the pre-construction meeting and reviewed at site meetings by General Manager and the Hamilton Police Service construction liaison officer according to the actual site conditions.

In general, a PDO shall be required:

- When work is taking place within 30.0 m of a signalised intersection.
- When work is taking place within 30.0 m of a pedestrian cross-over.
- When pedestrians' movements cannot be made safely.
- Where the hand gesturing of traffic is required.
- When more than one lane or direction of traffic flow is to be controlled.
- At a signalized intersection, the left turn lane has been eliminated or turning movements cannot be made in a safe manner.
- Wherever deemed necessary by the Hamilton Police Service construction liaison officer or the General Manager.

### ***Disputing the Need for a Paid Duty Officer***

If a dispute arises with regular police on patrol over the need for PDO, a police supervisor or the Hamilton Police Traffic Services construction liaison officer shall mediate the dispute. No claims for delay, resulting from these matters, will be considered by the General Manager.

### **Public Convenience and Safety**

In carrying out the work, or any portion thereof, the convenience of the public must always be considered and provided for by the Applicant who must not obstruct any street, thoroughfare or pedestrian walkway longer or to any greater extent than is absolutely necessary in the



opinion of the General Manager and shall in no case tear up or open more of any street than is approved by the General Manager or other body having jurisdiction over such closures or obstructions.

The Applicant is to provide safe, ample and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property, both for vehicles and pedestrians, wherever necessary, and for passing along all roads and sidewalks, and for crossing the same where it is practicable to do so, both during the execution of the work as well as at other times, and for this purpose must construct and maintain, in good and serviceable condition, suitable and convenient platforms, approaches, structures, bridges, crossings or other works as necessary to maintain access.

The Applicant is to ensure that all residents have access to their properties at all times. If access will be blocked for any period of time, the Applicant must make arrangements with the occupants at least 48 hours in advance of any disruption. Particular attention will be required at night to ensure that safe access is maintained for all occupants. The Applicant shall be attentive to the needs of pedestrians that are visually or physically impaired, and the Applicant must be prepared at all times to assist in the safe and comfortable passage of these pedestrians.

### **Clean Work Site**

The Applicant is responsible for maintaining the work site and surrounding area free of dust and mud. The Applicant shall clean the road and sidewalks as required to the satisfaction of the General Manager.

Prior to the start of any construction activity, filter cloth shall be placed between the frames and covers of all catch basins within the immediate area to prevent the entry of construction dirt and debris.

The Applicant shall keep the site and work in as tidy a condition as practicable and to the satisfaction of the General Manager. The Applicant shall not deposit any material on any portion of street, sidewalk, boulevard, grass plot, or other city or public property, without the permission of the General Manager, and shall remove same without delay when and as directed by the General Manager.

Upon completion of the work, the Applicant shall remove all surplus materials as well as any rubbish accumulated on account of the work, make good any defects or damage and shall leave the site in a condition satisfactory to the General Manager.

Should the Applicant fail to comply with this requirement and maintain the street in a satisfactory condition, the General Manager, acting reasonably, without further notice, may issue a stop work order, cancel the permit, charge the Applicant under applicable bylaws and/or arrange for the site to be cleaned immediately by others. All costs incurred in cleaning the dust and mud resulting from the Applicant's work shall be charged to the Applicant.

### **Material and Equipment Delivery and Storage**

The Applicant shall plan and schedule the movements of construction and delivery vehicles to, from and within the work site to minimise the interference and interruptions to traffic. Where possible, access routes shall be established to allow vehicles to merge with traffic without crossing traffic lanes.

Storage of materials delivered to the work site shall be considered to be part of the work area and shall conform to the traffic management plan and the provisions of this document.

Stockpiled material and equipment must not obstruct pedestrian or vehicular traffic, obstruct pedestrian or vehicular sight-lines, or be allowed to runoff onto pavement or sidewalks or into storm sewers. Sites for material storage are to be approved by the General Manager at the pre-construction meeting. Material storage must adhere to the City's tree protection practices as outlined in [Appendix F, Tree Protection Policy](#).

Notwithstanding the foregoing, the Applicant shall immediately rectify any situation involving equipment or material that, in the sole opinion of the General Manager, constitutes a hazard to vehicular traffic or to pedestrians.

## **Operation of Valves and Hydrants**

The Applicant shall not operate watermain valves, service water valves and/or hydrants. If operation of any water supply valves is required, the Applicant should contact the Hamilton Water Customer Service line at 905-546-4426.

## **Working Around Trees**

Any construction activity in the vicinity of trees shall be carried out in strict compliance with the tree protection policy in [Appendix F, Tree Protection Policy](#), of this document. Such activity includes, but is not limited to: delivery and storage of equipment and material; excavation; backfilling; plant installation; traffic control.

## **Working Around Mass Transit**

The Applicant shall coordinate all staging with any transit commission, school or tour group known to the Applicant that may have a bus stop or travel within the work area by contacting the City of Hamilton's Transit Planning section at 905-546-2424 ext. 1810. Special attention shall be given to loading and unloading areas for disabled persons and school buses.

The Applicant shall maintain access to all existing bus stops within the work area. Where it is not practical to maintain access, the Applicant will be responsible for relocation and reinstatement of the bus stops, under the direction of the transit authority or the General Manager, unless other arrangements have been made.

## **Working in the Vicinity of Bridges**

Any construction activity in the vicinity of bridges shall require the approval and review of Engineering Services. The applicant may contact the structures and expressways unit, prior to their submission to the City, in order to determine the feasibility of their proposed design. The correspondence from the pre-consultation with the Structures and Expressways unit should be included in the submission package to the City, in order to expedite the review process.

In the case where the applicant submits a set of plans that includes proposed work in the vicinity of bridges with pre-consultation with the Structures and Expressways unit, the Utility and Third Party Review group will forward a set of drawings to Engineering Services. The applicant is to note that the turnaround time maybe be significantly higher for such cases based on the complexity of the review.

### **Snow Removal and De-Icing**

Where the Applicant's work impedes snow removal and de-icing by the City on areas where vehicular and pedestrian traffic are being maintained, as reasonably determined at the sole discretion of the General Manager, the Applicant shall be responsible for providing ice and snow removal services within the limits of the work site. Such areas shall be cleared of ice and snow to the satisfaction of the General Manager.

Should the Applicant fail to complete the required snow removal services and de-icing within the set deadlines, the General Manager, without any notice to the Applicant, may arrange for the snow and ice to be removed by others. All costs incurred by such removal shall be charged to the Applicant.

### **Contaminated Soil**

If contaminated material is found when excavating, the Applicant shall immediately notify the General Manager and the Ontario Ministry of the Environment and comply with all applicable health and safety requirements. Contaminated material must not be used as backfill and must be disposed of according to ministry requirements at the Applicant's expense.

### **Notification of the Location of Unidentified Plant**

The Applicant shall immediately notify the General Manager of any plant encountered during the course of excavation which was not identified in any of the pre-construction circulations or locates. The Applicant shall contact all other utility companies and endeavour to determine the owner of the unidentified plant.

The Applicant shall include the location, depth, size and material of the unknown plant, clearly labelled as unidentified existing plant, with the location certificates submitted for that project.

## **Trenchless Installations**

Where the work is being undertaken using trenchless installation methods, **1.0 m** should be provided as minimum clearance from other utilities and indicated on submission plans. Pilot holes and any other damage to the street infrastructure shall be restored as per the requirements in this document. The location of the pilot holes and the measured depth of the existing plant must be clearly depicted on the location certificate. Please refer to [Appendix R, Minimum Location Certificate Requirements](#).

**All trenchless installations must daylight all crossing utilities.**

## **City of Hamilton Inspections**

City of Hamilton inspectors may at their discretion visit construction site locations as may be required, and must be allowed entry.

## **Reporting Impact / Damage to Existing Plant**

Any impact with existing plant including, but not limited to, the protective coating, support, cathodic protection or the housing of the plant, shall be reported to the General Manager and plant owner immediately. The plant shall remain exposed, with the excavation properly supported, until the plant owner has assessed the damage and made a repair or authorized the Applicant to proceed.

## **Non-Compliance**

Should any construction begin that is not in strict compliance with the conditions of the permit and this document, the Applicant may be issued a stop-work order and may be required to perform temporary restoration and move all equipment and materials off-site until these requirements are met in-full and the permit may be cancelled, at the sole discretion of the General Manager.

Depending on the severity of the infraction, the issuance of new permits for some or all work by the same Applicant may be withheld or delayed, at the sole discretion of the General Manager, until the infraction has been addressed by Applicant to the satisfaction of the General Manager.