

**ANNEX “A”**  
**BURLINGTON LIFT BRIDGE – MAINTENANCE WORK**  
**STATEMENT OF WORK**

**1. REQUIREMENT**

1.1. Provide all necessary labour, tools, equipment, materials, safety devices, and supervision required to provide regular maintenance services such that the Burlington Lift Bridge will be safe, reliable, and meet operational requirements.

**2. BACKGROUND**

2.1. In the interest of public safety and preservation of the assets, all bridges under the custodianship of PSPC are to be maintained to a level of service consistent with accepted industry practices, codes and standards. As such, regular and maintenance patrols are scheduled and undertaken by competent and qualified personnel.

2.2. General Maintenance is currently performed as required by PSPC Personnel.

**3. LOCATION**

3.1. Burlington Lift Bridge

3.1.1. Location.— The bridge connects Lakeshore Road, Burlington to the north with Eastport Drive, Hamilton to the south. The bridge spans the Burlington Bay Canal which connects Lake Ontario to the east with Hamilton Harbour and Burlington Bay to the west.

3.1.2. Description.— The Burlington Lift Bridge is a tower-drive steel truss vertical lift bridge with four vehicular traffic lanes and one pedestrian sidewalk along the west side of the bridge. The lift span of the bridge is 115.8m long and 19.8m wide with a vertical lifting capability of 33.5m. The bridge is flanked by approach spans on either side of the bridge. The bridge operations and control center is located at the south west corner of the bridge, which includes the control tower, machine shop and 925m<sup>2</sup> parking lot.

3.1.3. Parking. — Park in available spaces in the parking lot on the south side of the bridge.

3.1.4. See drawing BL-R101 for site layout and limits of work.

**4. BRIDGE MAINTENANCE PATROLS**

4.1. Schedule work activities when notified of requirement by Departmental Representative (DR).

4.2. Advise DR of any schedule change, 24 hours in advance of commencement of work.

4.3. Perform the bridge maintenance work, as described in this Statement of Work and as directed by DR, during the Bridge Maintenance Patrol.

4.3.1. Notify DR upon discovery of work items not covered in this Statement of Work.

4.4. Crew Size

4.4.1. Standard Bridge Maintenance Patrol crew will consist of a minimum of 2 general labourers physically capable of performing the work as outlined in this Statement of Work.

4.4.2. Contractor must ensure sufficient staff is available to safely, effectively, and efficiently perform the work.

4.4.3. Site supervisor must be on site when the work is being performed.

## 4.5. Maintenance Patrol Report

- 4.5.1. Within 1 working day of completion of bridge maintenance patrol, submit a Maintenance Patrol Report to the DR via email as a PDF file or Word document.
- 4.5.2. Provide a separate Maintenance Patrol Report for each Maintenance Patrol, clearly identifying what work was done and where the work was done.
- 4.5.3. Contents
  - 4.5.3.1. Maintenance Patrol Report must include the date and time of patrol, the temperature and weather, the time spent on site, description of work done, and a list of materials used.
  - 4.5.3.2. Maintenance Patrol Report must use clear and consistent terminology to describe where work is being done. Use bridge components (abutment, pier, truss, etc.) and approximate distance from abutments and/or compass directions (North, South, East or West) to describe where work was done.
  - 4.5.3.3. Maintenance Patrol Report must include work specific items as outlined in this Statement of Work.
  - 4.5.3.4. If multiple trades are involved in a repair, include a breakdown by trade in the Maintenance Patrol Report.
  - 4.5.3.5. Include before and after pictures of work performed during Maintenance Patrol. Provide size reference in all photos, such as a scale, measuring tape, or other appropriate reference.
- 4.5.4. Write Maintenance Patrol Report in a professional and accurate manner, either typed or written neatly in ink. Employee responsible for the work must print and sign their name and date the Maintenance Patrol Report.

## 5. **SCOPE OF WORK**

### 5.1. Cleanup

- 5.1.1. Definition— Removal of garbage, vegetation, dirt, debris and litter within limits of work.
- 5.1.2. Description— Work taking place near public must provide a safe avenue of travel for pedestrians. No garbage, vegetation, dirt, debris or litter is to be disposed of in the watercourse. For any hazardous materials encountered (including but not limited to drug paraphernalia, blood, human and animal waste) refer to Section 5.5.
- 5.1.3. Scope
  - 5.1.3.1. Crew Size – Standard Maintenance Patrol Crew.
  - 5.1.3.2. Materials and Equipment
    - 5.1.3.2.1. Garbage bags
    - 5.1.3.2.2. Brooms
  - 5.1.3.3. Procedure
    - 5.1.3.3.1. Collect and remove all garbage and debris from within limits of work.
    - 5.1.3.3.2. Sweep, collect, and remove sand, salt, dirt and debris from pedestrian walkways
    - 5.1.3.3.3. Clear roadway drains of any debris.
- 5.1.4. Scheduling— Work to be carried out when notified by DR.
- 5.1.5. Reporting – Notify DR if any excessive or unusual garbage or debris are found in the execution

of this work.

5.1.6. Disposal – Contractor to supply DR with proof of disposal at appropriate site as required.

## 5.2. Graffiti

5.2.1. Definition.— Any paint/sticker/marking applied to bridge components (including but not limited to railings, sidewalks, barrier walls, lampposts, signs and trusses) without the written authorization of PSPC. This graffiti is removed to maintain a presentable appearance of the Asset.

5.2.2. Description.— Only remove graffiti on PSPC owned property and assets. Paint over graffiti only if ambient air temperature is above 5° C. Do not paint over graffiti on concrete. Notify DR of graffiti larger than 0.25m<sup>2</sup> or graffiti requiring specialized access equipment for removal, such as an elevated work platform or a boat.

### 5.2.3. Scope

5.2.3.1. Crew Size – Standard Maintenance Patrol Crew.

5.2.3.2. Materials and Equipment

5.2.3.2.1. Pressure washer with minimum strength of 2000 psi with nozzle kept 30 cm from surface

5.2.3.2.2. Environmentally safe graffiti removal products that will not damage bridge coating system

5.2.3.2.3. Biodegradable phosphate free soap

5.2.3.2.4. Single component, moisture curing aliphatic urethane paint, colour matched to existing bridge surface

5.2.3.2.5. Clean potable water

5.2.3.2.6. Water tank with sufficient supply of potable water to complete work.

5.2.3.3. Procedure – Paint and Markings

5.2.3.3.1. Apply graffiti removal product. Let stand as per manufacturer's recommendations.

5.2.3.3.2. Rinse surface with water, using scrubbers, sponges, rags, or pressure washer to remove any residue.

5.2.3.3.3. Allow surface to dry.

5.2.3.3.4. If shadowing occurs, repeat chemical removal process.

5.2.3.3.5. Only paint over on steel and only if repeated chemical wash treatments deemed ineffective. Follow manufacturer's recommendation for application of the coating product. Do not paint over graffiti on concrete.

5.2.3.3.6. Extend paint 10mm beyond affected area.

5.2.3.3.7. If shadowing occurs, apply second coat of paint.

5.2.3.4. Procedure – Stickers

5.2.3.4.1. Dampen sticker with soapy water.

5.2.3.4.2. Scrape away sticker without damaging existing coating system.

5.2.3.4.3. Wash away excessive sticker adhesive.

5.2.3.5. Scheduling – Work to be carried out when notified by DR.

5.2.3.6. Reporting— Contractor to record size and location of all graffiti removed. Provide before and after photos of removed graffiti. Scale all photos by placing a measuring tape next to the graffiti tag in the photo. Report on areas frequently vandalized so preventive measures can be considered.

### 5.3. Potholes

5.3.1. Definition— Any depression or cavity formed in the wearing surfaces (concrete or asphalt) of the bridge, roadway and sidewalks. Potholes are to be filled with quality cold mix asphalt, as they represent a tripping hazard on sidewalks and a driving hazard to vehicles on the road.

5.3.2. Description— Only potholes shallower than 15 cm are to be filled using cold mix asphalt. Work is to be undertaken only when air temperature on-site is between -20° C and 35° C and there has been no heavy rain during the previous six hours. Provide before and after photos of pot hole. Scale all photos by placing a measuring tape next to the pot hole tag in the photo.

#### 5.3.3. Scope

5.3.3.1. Crew Size – Standard Maintenance Patrol Crew.

5.3.3.2. Materials and Equipment

5.3.3.2.1. Tamping irons: mass not less than 12 kg, bearing area not exceeding 310 cm<sup>2</sup>.

5.3.3.2.2. Air compressor: oil free, pressure not less than 600 kPa.

5.3.3.2.3. Cold mix asphalt: not containing diesel or kerosene, ASTM D1559 stability of 889 N or greater

5.3.3.2.4. Sand: clean, fine-grained.

5.3.3.3. Procedure

5.3.3.3.1. Remove from pothole any loose surface, unstable base material, water, snow and foreign materials.

5.3.3.3.2. Compact base using hand tamper to achieve firm foundation.

5.3.3.3.3. Apply and compact cold mix asphalt in maximum 50 mm thick lifts.

5.3.3.3.4. Leave 25 mm crown on roadways surface to allow for secondary compaction.

5.3.3.3.5. Leave 13 mm crown on sidewalks to allow for secondary compaction.

5.3.3.3.6. Apply light, well distributed sand coating to surface of fresh cold mix asphalt.

5.3.3.4. Scheduling

5.3.3.4.1. Work to be carried out when notified by DR. Notify DR of potholes requiring lane reductions or closures to complete repair work. Any work that may impede the flow of traffic is not to be undertaken until instructed by DR

5.3.3.5. Reporting

5.3.3.5.1. Contractor to record size and location of all potholes filled. Provide before and after photos. Scale all photos by placing a measuring tape next to the potholes in the photo. Report on areas of excessive wear/damage so preventive measures can be considered.

5.3.3.5.2. Notify DR of potholes larger than what is described in this Statement of Work.

### 5.4. Grass Cutting

5.4.1. Definition — This work consists of cutting the grass on PSPC property surrounding the bridge.

5.4.2. Description — Cut grass only on PSPC property, as identified in contract documents.

5.4.3. Scope

5.4.3.1. Crew Size – Standard Maintenance Patrol Crew.

5.4.3.2. Materials and Equipment

5.4.3.2.1. Lawn Mower

- 5.4.3.2.2. Grass Trimmer
- 5.4.3.2.3. Hedge clippers, pruners and other cutting equipment as required
- 5.4.3.3. Procedure – Cut grass and other vegetation on PSPC property. Ensure no vegetation will grow onto traveled way (sidewalk, roadway, or parking lot). See areas indicated on drawing BL-R101.
- 5.4.3.4. Scheduling — Work to be carried out when notified by DR.
- 5.4.3.5. Reporting.— Report any areas where vegetation could not be cut.

## 5.5. Removal of Dangerous Substances

- 5.5.1. Definition.— The location and removal of drug paraphernalia, human and animal waste in and around the site.
- 5.5.2. Description.— Dangerous Substances are only to be handled, transported, and disposed of by properly trained and equipped individuals.
- 5.5.3. Scope
  - 5.5.3.1. Crew Size
    - 5.5.3.1.1. Provide workers with appropriate safety equipment and ensure they are properly trained to handle Dangerous Substances. Equipment to address hazards inherent to the task.
  - 5.5.3.2. Procedure
    - 5.5.3.2.1. Individuals taking part in regular patrols are to pay special attention for the presence of Dangerous Substances. A removal crew is to be sent to the site when drug paraphernalia are encountered. All Dangerous Substances located are to be secured and transported safely in an appropriate container to an approved disposal site.
    - 5.5.3.2.2. Handle and dispose of Dangerous Substances in accordance with Canadian Environmental Protection Act, Transportation of Dangerous Goods Act, and regional and municipal regulations.
    - 5.5.3.2.3. Contractor to specify proposed method and disposal site at bid submission. Any proposed change to the disposal method must be discussed with DR and confirmed in writing.
  - 5.5.3.3. Scheduling— Notify DR of any Dangerous Substances found on-site. Proceed with removal upon receipt of written notification from DR.
  - 5.5.3.4. Reporting— Contractor to notify DR upon finding any hazardous materials (including but not limited to drug paraphernalia, blood, human and animal waste) and record the location it was found. Record disposal method and supply proof of disposal as required.

## 5.6. Snow Removal

- 5.6.1. Definition.— This work consists of the removal of snow and ice from PSPC property, and the spreading of de-icing agents on PSPC property.
- 5.6.2. Description.— Remove snow and ice, and spread de-icing agents only on PSPC property as outlined within this Statement of Work and as indicated on contract drawings.
- 5.6.3. Scope

- 5.6.3.1. Crew Size – Standard Maintenance Patrol Crew.
- 5.6.3.2. Materials and Equipment
  - 5.6.3.2.1. Truck Mounted Snow Plough
  - 5.6.3.2.2. Snow Shovel
  - 5.6.3.2.3. De-icing agent
- 5.6.3.3. Procedure
  - 5.6.3.3.1. Remove snow from South parking lot, sidewalk, and pathways under bridge. See areas indicated on drawing BL-R101.
    - 5.6.3.3.1.1. DR to provide key for contractor to unlock access barrier to West Wharf.
  - 5.6.3.3.2. Clear access and egress around Operations Building on south side of bridge.
  - 5.6.3.3.3. Apply de-icing agent to same areas.
  - 5.6.3.3.4. DR will indicate locations of permissible snow storage.
- 5.6.4. Scheduling — Work to be carried out when notified by DR.
- 5.6.5. Reporting.— Report any damage to PSPC property.

## 5.7. Pressure Washing

- 5.7.1. Definition.— Wash bridge components with high pressure water to remove dirt, sand, salt residue and bird waste.
- 5.7.2. Description.— DR to provide limits and scope of work. Pressure Washing to be limited to property owned by PSPC.
- 5.7.3. Scope
  - 5.7.3.1. Crew Size – Provide sufficient labourers so as to complete work in a timely manner.
  - 5.7.3.2. Sweep, collect, and remove sand, salt, dirt and debris on horizontal surfaces of bridge and dispose into an approved landfill site and not disposed of in the watercourse.
  - 5.7.3.3. Pressure wash bridge components within limits of work as directed by Departmental Representative to remove sand, salt, and animal and bird waste:
    - 5.7.3.3.1. Water for pressure washing is not to be taken from the watercourse.
  - 5.7.3.4. Scheduling – DR will notify contractor of requirement for Pressure Washing, schedule work with DR upon receipt of written request from DR.
  - 5.7.3.5. Reporting.— Include summary of Pressure Washing on Maintenance Patrol Report.

## 5.8. Crack Sealing

- 5.8.1. Definition – Fill cracks ranging in size from 5mm to 20mm with hot pavement crack sealer.
- 5.8.2. Description – DR will provide limits and estimated total length of cracks to seal. Crack sealing to be limited to roadway within limits of work.
- 5.8.3. Scope
  - 5.8.3.1. Crew Size – Provide sufficient labourers so as to complete work in a timely manner.
  - 5.8.3.2. Materials and Equipment
    - 5.8.3.2.1. Asphalt Crack Sealer: Hot pour bitumous pavement crack sealant
    - 5.8.3.2.2. High Pressure Air Compressor: High pressure air to be free of moisture and oil
  - 5.8.3.3. Procedure
    - 5.8.3.3.1. Collect and remove sand, dirt, loose materials, and other debris from road surface

adjacent to cracks.

5.8.3.3.2. Use high pressure air to remove remaining sand, dirt, loose materials, and other debris from within cracks.

5.8.3.3.3. Apply crack sealer to manufacturer's written instructions.

5.8.3.3.3.1. Remove excess crack sealer before setting

5.8.3.4. Scheduling – Schedule work when notified by DR. Perform crack sealing in dry conditions when temperature is above 0°C and forecast does not call for rain or temperatures below 0°C for 24 hours. Notify DR if these conditions cannot be met within the timeframe outlined in this Statement of Work.

5.8.3.5. Reporting – Report total length of cracks sealed.

## 5.9. Traffic Control

5.9.1. Definition – Provide traffic control to close one lane of traffic. Maintain one lane of traffic in each direction at all times.

5.9.2. Description – DR may request traffic control in conjunction with other planned work.

### 5.9.3. Scope

5.9.3.1. Crew Size – Provide sufficient labour to install, maintain, operate and remove traffic control in accordance with MTO Traffic Manual Book 7.

5.9.3.2. Materials and Equipment

5.9.3.2.1. Signs and traffic control devices to MTO Traffic Manual Book 7

5.9.3.3. Procedure

5.9.3.3.1. Install, maintain, operate and remove traffic control in accordance with Section 7 of this Statement of work.

5.9.3.3.1.1. Close one lane of traffic. One traffic lane in each direction to remain open at all times.

5.9.3.3.2. Provide traffic control and management plan to DR minimum 2 days prior to start of work.

5.9.3.4. Scheduling – Schedule and coordinate work with DR as required.

## 6. **GENERAL INSTRUCTIONS**

### 6.1. Regulatory Requirements

6.1.1. References and Codes:

6.1.1.1. Materials must be new and work must conform to minimum applicable standards of "References" indicated in other sections, the National Building Code of Canada 2010 (NBC) and all applicable Provincial and Municipal codes. In case of conflict or discrepancy most stringent requirement will apply.

6.1.2. Site Smoking Environment – Smoking is not permitted.

6.1.3. Hazardous Materials:

6.1.3.1. Hazardous Materials: product, substance, or organism that may cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into environment.

6.1.3.2. Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding

labelling and provision of Material Safety Data Sheets (MSDS).

- 6.1.3.3. Stop work immediately when material resembling spray or trowel-applied asbestos, Polychlorinated Biphenyl (PCB), mold or other hazardous materials is encountered during work.
  - 6.1.3.3.1. Take preventative measure and promptly notify DR.
  - 6.1.3.3.2. Do not proceed until written instructions have been received from DR.

## 6.2. Fire Safety Requirements

- 6.2.1. Comply with both National Building Code of Canada 2010 and National Fire Code of Canada 2010 for safety of persons in buildings in event of fire and protection of buildings from effects of fire, as follows:
  - 6.2.1.1. National Building Code (NBC): for fire safety and fire protection features that are required to be incorporated in building during construction.
  - 6.2.1.2. National Fire Code (NFC):
    - 6.2.1.2.1. On-going maintenance and use of fire safety and fire protection features incorporated in buildings.
    - 6.2.1.2.2. Conduct of activities that might cause fire hazards in and around buildings.
    - 6.2.1.2.3. Limitations on hazardous contents in and around buildings.
    - 6.2.1.2.4. Establishment of fire safety plans.
    - 6.2.1.2.5. Fire safety at construction and demolition sites.

## 6.3. Submittal Procedures

- 6.3.1. Submit promptly to DR submittals listed for review, in orderly sequence to not cause delay in work.
- 6.3.2. Do not proceed with work affected by submittals until review is complete and approval received from DR and confirmed in writing.
- 6.3.3. Product Data:
  - 6.3.3.1. Submit product data: Manufacturers catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products.
  - 6.3.3.2. Cross reference product data information to applicable portions of the Statement of Work.

## 6.4. Site Supervisor

- 6.4.1. Appoint one labourer in bridge maintenance crew to act as Site Supervisor.
- 6.4.2. Site Supervisor will be present and available at all times during bridge maintenance patrols.

## 6.5. Quality of Work

- 6.5.1. Carry out work using qualified licensed workers or apprentices in accordance with Provincial Act respecting manpower vocational training and qualification.
- 6.5.2. Permit employees registered in Provincial apprenticeship program to perform specific tasks only if under direct supervision of qualified licensed workers.
- 6.5.3. Determine permitted activities and tasks by apprentices, based on level of training attained and demonstration of ability to perform specific duties.
- 6.5.4. Carry out work using subcontractor who holds valid license issued by Province in which work is being contracted.

## 6.6. Use of Site

- 6.6.1. Present yourself to PSPC staff in Control Tower at South West corner of bridge when arriving on-site.

- 6.6.1.1. Maintain open line of communication with Control Tower while performing work under this contract.
- 6.6.2. Examine site and conditions likely to affect work and be familiar and conversant with existing conditions.
- 6.7. Contractor responsible for making arrangements for sanitary facilities.
- 6.8. Contractor to provide portable power supply when electrical power is needed.
- 6.9. No site storage of materials or equipment will be permitted.
- 6.10. Unless otherwise specified, materials for removal become Contractor's property and must be removed from site.

## **7. TRAFFIC CONTROL**

### 7.1. Summary

- 7.1.1. This section covers the supply, installation and management of traffic control, when required, to do tasks undertaken in this contract.

### 7.2. References

- 7.2.1. MTO Traffic Manual, Book 7, 2001.

### 7.3. Protection of Public Traffic

- 7.3.1. Comply with requirements of Acts and By-Laws for regulation of traffic or use of roadways, sidewalks and pathways where work is to be carried out.
- 7.3.2. Provide and maintain traffic control in accordance with short-term lane closure requirements of MTO Traffic manual, Book 7.
- 7.3.3. When working on travelled way:
  - 7.3.3.1. Place equipment in position to present minimum of interference and hazard to travelling public.
  - 7.3.3.2. Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
  - 7.3.3.3. Do not leave materials or equipment on travelled way overnight.
- 7.3.4. Do not close lanes of roadway without approval of DR.
- 7.3.5. Before re-routing traffic or starting Work erect suitable signs and devices in accordance with applicable standards.
- 7.3.6. Maintain travelled way to specified widths and required number of traffic lanes, as indicated by Departmental Representative.
- 7.3.7. Provide vehicles, cyclists and pedestrians with safe passage through work zone.

### 7.4. Information and Warning Devices

- 7.4.1. Provide and maintain signs, flashing warning lights, delineators, barricades and other warning devices as required for a safe work zone.
- 7.4.2. All text on construction signs to be bilingual.
- 7.4.3. Continually maintain traffic control devices in use by:
  - 7.4.3.1. Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
  - 7.4.3.2. Removing signs which do not apply to conditions existing from day to day.
  - 7.4.3.3. Taking action immediately to correct traffic control issues and notifying DR.

### 7.5. Traffic Control and Management Plan

7.5.1. Submit proposed Traffic Control and Management Plan (TCMP) to DR for review 2 days prior to commencement of work. TCMP to include:

- 7.5.1.1. Traffic control layout drawings.
- 7.5.1.2. List of signs and other devices required.
- 7.5.1.3. Installation and removal procedures.
- 7.5.1.4. Inspection and maintenance procedures.
- 7.5.1.5. Traffic control procedures for pedestrians and cyclists.

7.5.2. If situation on site requires change to traffic control and management plan, submit revised TCMP to DR.

## 7.6. Operational Requirements

7.6.1. Maintain traffic control throughout period required for work.

7.6.2. Traffic Control Devices to be completely removed from bridge after each day or when not required for current work.

7.6.3. Traffic Control Devices may only be moved temporarily to side of roadway or sidewalk upon approval of DR.

## 8. **HEALTH AND SAFETY**

8.1. Summary - This section includes health and safety considerations required to ensure that PSPC shows due diligence towards health and safety on construction sites, and meets the requirements laid out in PSPC/RPB Departmental Policy DP 073 - Occupational Health and Safety - Construction.

### 8.2. Regulatory Requirements

8.2.1. Abide by, all relevant Legislation, Regulations, Codes, and Standards of the province having jurisdiction and ensure that all work undertaken at bridge sites on behalf of PSPC is completed in a safe manner.

- 8.2.1.1. Ontario: Comply with “Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990, C. 0.1, as amended” and “O. Reg. 213/91, as amended”
- 8.2.1.2. Comply with CAN/CSA Z462 (Current Edition) Workplace Electrical Safety Standard.
- 8.2.1.3. Comply with CAN/CSA Z460-05 (R2010) Control of Hazardous Energy.
- 8.2.1.4. Comply with National Building Code of Canada 2010 as amended.
- 8.2.1.5. Comply with National Fire code of Canada 2010 as amended.

8.2.2. Provide all necessary safety training and personal protective equipment as required to effect work while ensuring sub-contractors are equally compliant.

### 8.2.3. Personal Protective Equipment

- 8.2.3.1. Minimum required Personal Protective Equipment includes:
  - 8.2.3.1.1. CSA approved hard hat
  - 8.2.3.1.2. CSA approved work boots, with green triangle tag easily verifiable
  - 8.2.3.1.3. Reflective vest or other garment with appropriate reflective markings
  - 8.2.3.1.4. Long pants
  - 8.2.3.1.5. Other appropriate equipment needed to safely execute the work being performed.

### 8.3. Safety Procedures

8.3.1. When unforeseen or peculiar safety-related factors, hazards, or conditions occur during performance of Work, immediately stop work and advise DR verbally or in writing.

- 8.3.2. Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by DR and provide the appropriate party with written report of action taken.
  - 8.3.2.1. DR may stop work if non-compliance of health and safety regulations is not corrected.
- 8.3.3. Give precedence to health and safety of public and site personnel and protection of environment over cost and schedule considerations for Work.
  - 8.3.3.1. Take all precautions as stated in governing provincial regulations to ensure no person is exposed to undue risk.
- 8.3.4. Where applicable, work site is to be barred from the public according to governing provincial regulations and to approval of DR.
- 8.3.5. DR reserves the right to stop work for health and safety considerations.
- 8.3.6. Separate work site from other construction sites by means of time, space or physical barriers.
  - 8.3.6.1. Coordinate work with DR to avoid working at same time as other contractors, or
  - 8.3.6.2. Maintain distance between work site and other construction sites so that work activities on either site do not interfere with one another, or
  - 8.3.6.3. Install and maintain physical barriers between work site and other construction sites so that work activities on either site do not interfere with one another.
- 8.3.7. Provide or obtain from DR, documents as follows and post on site (if applicable):
  - 8.3.7.1. Safety Policy,
  - 8.3.7.2. Health and Safety Representative,
  - 8.3.7.3. Contractor's name,
  - 8.3.7.4. Material Safety Data Sheets,
  - 8.3.7.5. Designated Substance Report (DSR), and
  - 8.3.7.6. All applicable legislative and regulatory requirements.

#### 8.4. Responsibility

- 8.4.1. Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to the extent that they may be affected by conduct of Work.
- 8.4.2. Comply with and enforce compliance by employees and subcontractors with safety requirements of Contract Documents, applicable federal, provincial and local statutes, regulations, and ordinances, and with Site Specific Health and Safety Plan.

#### 8.5. Health and Safety Submittals

- 8.5.1. PSPC requires a variety of submittals proving Contractor compliance with legislated requirements. Include the following with your firm's bid:
  - 8.5.1.1. Company information (submit for sub-contractors as well):
  - 8.5.1.2. Proof of liability insurance with a valid clearance certificate from the Workplace Safety Insurance Board (WSIB)
- 8.5.2. PSPC requires a variety of submittals proving Contractor compliance with legislated requirements. Within 5 days of being awarded contract and prior to commencement of work, submit the following to the DR:
  - 8.5.2.1. Site specific Health and Safety Plan, to include and be updated regularly:
  - 8.5.2.2. Site specific safety hazard assessment
  - 8.5.2.3. Results of safety and health risk or hazard analysis for the site tasks and operation and

- procedure for managing hazards
  - 8.5.2.4. All applicable MSDS Sheets
  - 8.5.2.5. Communication Plan
  - 8.5.2.6. Contact phone numbers
  - 8.5.2.7. On-site Contingency and Emergency Response Plan addressing standard operating procedures to be implemented during emergency situations
  - 8.5.2.8. Public Protection
- 8.5.3. DR will review Contractor's Site Specific Health and Safety Plan to provide comments. Contractor is to revise the plan as appropriate and resubmit plan to DR within 24 hours after receipt of comments. Review should not be construed as approval and does not reduce Contractor's overall responsibility for construction Health and Safety.
- 8.5.4. Incident and accident reports.
- 8.5.4.1. When applicable: Contractor's Electrical Master's License (must have original on-site for verification), Contractor's Electrical Master's business license (must have original on-site for verification), Electrical Safety Authority permit or certificate,
  - 8.5.4.2. Names and contact information for all sub-contractors who will be working on-site.
- 8.5.5. Employee Information – Names of all persons who will be present on-site during the course of this Contract and copies of:
- 8.5.5.1. WHMIS card (ON)
  - 8.5.5.2. Trade Certificates and if applicable Apprenticeship Certificates (must have original on-site for verification)
  - 8.5.5.3. Workers' Certificates of Qualification
  - 8.5.5.4. Fall Arrest Protection Certificates
  - 8.5.5.5. Job Protection Cards and Registration, if applicable
  - 8.5.5.6. CPR/1<sup>st</sup> aid training for safety watcher (appropriate to job to be undertaken)
  - 8.5.5.7. Other certificates where required for the performance of specific tasks (including but not limited to: confined space awareness or entry (job specific), man lift, asbestos, boater certification)
- 8.6. Hazardous Materials
- 8.6.1. Designated Substance Reports for all bridges are included with project documents.
  - 8.6.2. Should material resembling a hazardous material not previously identified or documented be encountered during the execution of Work, stop Work and notify DR. Do not proceed until written instructions have been received from DR.
  - 8.6.3. Manage all products used in Work to requirements of the Workplace Hazardous Materials Information System (WHMIS) Regulations and Chemical Substances of the Occupational Health and Safety Act and Regulations.
- 8.7. Qualifications of Personnel
- 8.7.1. Carry out work using licensed workers; certified in the province of work, or apprentices; registered in a Québec or Ontario Provincial Apprenticeship Program, in accordance with the appropriate Provincial Act respecting manpower, vocational training and qualification.

## **9. ENVIRONMENTAL PROTECTION**

### 9.1. Summary

- 9.1.1. This section covers the environmental procedures and protection measures to be followed during the Work. This includes instructions for proper disposal of waste, cleanliness, fires, plant protection, work adjacent to watercourse, pollution and dust control.

## 9.2. Regulatory Requirements

9.2.1. Comply with specified standards and regulations to ensure environment protected over course of work.

## 9.3. Site Cleanliness

9.3.1. Maintain bridge sites in tidy condition, free from accumulation of waste products and debris.

9.3.2. Remove waste materials from site at end of each working day.

## 9.4. Work Adjacent to Watercourse

9.4.1. Equipment to be operated on land or floating barge only.

9.4.2. Do not dump waste material or debris into watercourse.

9.4.3. Do not allow waste water into watercourse, sewer or drainage systems.

9.4.4. Clean equipment so as to prevent wash water from entering watercourse.

## 9.5. Plant Protection

9.5.1. DR will inform Contractor of Species at Risk present on-site prior to beginning of work.

9.5.2. Protect trees and plants on site and adjacent properties.

9.5.3. Protect roots of trees to drip line during work. Avoid unnecessary traffic and storage of materials over root zones.

9.5.4. Minimize damage to areas with grass cover. Make good any damage to grass to the satisfaction of DR.

## 9.6. Animal Protection

9.6.1. DR will inform Contractor of Species at Risk present on-site prior to beginning of work.

9.6.2. Develop protection plan complying with requirements in Species at Risk Act (SARA), Fisheries Act and Migratory Birds Convention Act (MBCA). Submit protection plan for approval to DR.

9.6.3. Do work so as to not disturb habitat, including nesting and breeding grounds, of species identified in SARA, Fisheries Act and MBCA.

## 9.7. Spill Protection

9.7.1. Develop site specific spill response plan that will contain and clean up any leaks or spills of hazardous materials. Submit to DR for approval 5 days prior to beginning of work.

9.7.1.1. Keep emergency spill kit and copy of spill response plan on-site to respond quickly to spills if spills occur. Provide list of contents of spill kit and all applicable Technical Data Sheets (TDS) to DR 5 days prior to beginning of work

9.7.2. Maintain vehicles and equipment in good working condition to avoid leaks and spills of hazardous materials.

9.7.2.1. Vehicles and equipment to arrive on-site in clean condition and maintained free of fluid leaks.

9.7.2.2. Wash, refuel and service vehicles and equipment and store fuel away from water to prevent harmful substances from entering watercourse.

9.7.3. Contact DR and governing authority if spill occurs.

9.7.3.1. Ontario: Ministry of Environment Spill Action Centre at 1-800-268-6060

## 9.8. Pollution Control

9.8.1. Control emissions from equipment and vehicles to local authorities' emission requirements.

9.8.2. Use vehicles and equipment fitted with emission control systems, mufflers, exhaust system baffles and/or engine covers.

9.8.3. Prevent debris and other extraneous materials from contaminating air beyond work area by providing the necessary control of dust and debris.

9.8.3.1. Provide temporary enclosures to contain possible contaminants.

9.8.4. Cover or wet down dry materials and rubbish to prevent blowing dust and debris.

9.8.5. Restrict noise in accordance with local municipal regulations.

9.9. Disposal of Wastes

- 9.9.1. Remove and dispose of waste and debris to an approved landfill site adhering to all municipal, provincial and federal environmental and health regulations.
- 9.9.2. Do not bury waste or debris materials on site.
- 9.9.3. Do not dispose of waste or volatile materials into watercourse, storm or sanitary sewers, catch basins or deck drains.
- 9.9.4. No foreign materials including garbage, sand, debris, cleaning solvents or paint are to fall or be washed into watercourse or through deck drains.
- 9.9.5. Handle and dispose of hazardous or toxic materials in accordance with the Canadian Environmental Protection Act, Transportation of Dangerous Goods Act, Regional and Municipal regulations.

9.10. Fires – Fires and burning of waste and debris is not permitted.

9.11. Notification

- 9.11.1. DR will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations.
- 9.11.2. Contractor to inform DR of proposed corrective action and proceed only when written approval from DR is received.
- 9.11.3. DR may issue stop work order until satisfactory corrective action has been taken.
  - 9.11.3.1. No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.