

**Part 1            General**

**1.1            TAXES**

- .1    Pay all taxes properly levied by law (including Federal, Provincial and Municipal).

**1.2            FEES, PERMITS and CERTIFICATES**

- .1    Pay all fees and obtain all permits.
- .2    Provide authorities with plans and information for acceptance certificates.
- .3    Obtain inspection certificates as evidence that work conforms to requirements of Authority Having Jurisdiction.

**1.3            WORK RESTRICTIONS**

- .1    Time of Completion:
  - .1    Commence the Work in accordance with notification of acceptance and complete the Work within 11 weeks.
- .2    Use of Site and Facilities.
  - .1    Execute work with least possible interference or disturbance to the normal use of premises. Make arrangements with Departmental Representative to facilitate work as stated. Refer to sub-paragraph 1.3.2 Special Scheduling Requirements below for work that must be done during "off hours".
  - .2    Maintain existing services to building and provide for occupant, visitor and vehicle access.
  - .3    Contain deliveries and temporary parking within construction yard. No parking permitted outside of construction yard.
    - .1    Temporary parking permitted for Contractor employees in company-marked vehicles only.
- .3    Special Scheduling Requirements.
  - .1    Two phase requirement.
    - .1    Two phases of separate zones is required to accommodate uninterrupted access to at least one main entrance door.
    - .2    General areas of work are identified as Zones and are noted on Contract Drawings.
      - .1    Zone A-B, at Lampposts.
      - .2    Zone C-D, at Upper Landings.
      - .3    Zone E-F, Zone H and Zone J, at Stairs.
      - .4    Zone G, at Central Landing.
      - .5    Zone I, at Lower Landing.
    - .3    Phase 1 work: Zones A, C, E-I.
    - .4    Phase 2 work: Zones B and D.
  - .2    When Court is in recess, carry out work during "regular hours", Monday to Friday from 07:00 to 18:00 hours.
  - .3    Give Departmental Representative 48 hours' notice for work to be carried out during the following "off hours":

- .1 Monday to Friday from 19:00 to 06:00 hours and on Saturdays, Sundays, and statutory holidays.
- .4 Deliver and pick up materials during "off hours", unless directed in writing by Departmental Representative.

#### 1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Project Meetings.
  - .1 Schedule and administer construction project meetings throughout progress of the Work.
  - .2 Prepare agenda for meetings.
  - .3 Preside at meetings.
  - .4 Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.
  - .5 Reproduce and distribute copies of minutes within three days after meetings and transmit to meeting participants and Departmental Representative.
  - .6 Representative of Contractor, Subcontractor attending meetings will be qualified and authorized to act on behalf of party each represents.
- .2 Start-up Meeting.
  - .1 Convene start-up meeting minimum 2 weeks prior to beginning construction start works. Key contractor personnel, contractor site supervisor, Departmental Representative to attend.
  - .2 Establish time and location of meeting and notify parties concerned minimum 7 days before meeting.
  - .3 Verify project requirements. Agenda to include:
    - .1 Schedule of Work: in accordance with Article 1.5 Construction Progress Schedule below.
    - .2 Schedule of submission of shop drawings, samples, mock-ups. Submit submittals in accordance with Article 1.7 Submittal Procedures below.
    - .3 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Article 1.13 Construction Facilities below.
    - .4 Site security in accordance with Article 1.13 Construction Facilities below.
    - .5 Proposed changes, procedures, approvals required, administrative requirements.
    - .6 As-built/Record drawings in accordance with Article 1.19 Closeout Submittals below.
    - .7 Maintenance manuals in accordance with Article 1.19 Closeout Submittals below.
    - .8 Take-over procedures, acceptance, warranties in accordance with Article 1.19 Closeout Submittals below.
    - .9 Monthly progress claims, administrative procedures, photographs, hold backs.
    - .10 Appointment of inspection and testing agencies or firms.
    - .11 Insurances, transcript of policies.

- .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within four (4) days after meeting.
- .3 Regular Project Meetings.
  - .1 Hold project meetings every two (2) weeks.
  - .2 Key contractor personnel, contractor site supervisor, Departmental Representative to attend.
  - .3 Notify parties minimum five (5) days prior to meetings.
  - .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within four (4) days after meeting.
  - .5 Agenda to include the following:
    - .1 Review, approval of minutes of previous meeting.
    - .2 Review of Work progress since previous meeting.
    - .3 Use of Site, Safety and Security
    - .4 Field observations, Site Reviews,
    - .5 Review of delivery schedules.
    - .6 Upcoming work and any Revisions to construction schedule.
    - .7 Review of submittal schedules: expedite as required.
    - .8 Review of any proposed changes for effect on construction schedule and on completion date.
- .4 Special Review Meetings.
  - .1 Hold minimum four (4) Special Review Meetings at periods in the Work as indicated in Section 03 53 00 – Concrete Repair and New Concrete Overlay and Section 07 55 56.14 – Hot Fluid-Applied Rubberized Asphalt Waterproofing.
    - .1 Coordinate sequences of related work between concrete repairs, new concrete topping and waterproofing.
      - .1 Ensure review and acceptance at critical stages of work before proceeding to next stage.
    - .2 Agenda to include the following:
      - .1 Review of specific item of Work indicated.

#### **1.5 CONSTRUCTION PROGRESS SCHEDULE**

- .1 Schedule and execute work with least possible interference or disturbance to the normal use of premises.
- .2 Within one (1) week of award of contract submit bar chart construction schedule for work, indicating anticipated progress stages within time of completion. When the Departmental Representative has reviewed schedule, take necessary measures to complete work within scheduled time.
  - .1 Changes to approved schedule: Submit proposed changes to approved schedule in writing minimum seven (7) days in advance of proposed changes. Obtain Departmental Representative's approval before proceeding with changes to schedule.

#### **1.6 STAGING PLAN**

- .1 A two-phase project is required as indicated on Contract Drawings.

- .2 Submit Staging Plan outlining work phases in compliance with specified implementation restrictions and in accordance with submitted schedule.
  - .1 Obtain approval of Departmental Representative before executing staging plan.
  - .2 Proposed changes to approved Staging Plan: Obtain written approval of Departmental Representative before proceeding with changes.
  - .3 Complete phase one before starting phase two.

#### 1.7 SUBMITTAL PROCEDURES

- .1 Provide submittals listed for review to Departmental Representative in orderly sequence to not cause delay in work.
- .2 Proceed with work affected by submittals only after review is complete.
- .3 Provide inspection certificates as evidence that work conforms to requirements of Authority Having Jurisdiction.
- .4 Shop Drawings:
  - .1 Submit five (5) copies of shop drawings: bearing stamp and signature of qualified Professional Engineer registered or licensed in Province of Ontario.
  - .2 The review is for the sole purpose of ascertaining conformance with the general design concept, and does not mean approval of the design details inherent in the shop drawings, responsibility for which shall remain with the Contractor. Such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents.
  - .3 Commence manufacture or order materials only after shop drawings are reviewed.
    - .1 When requested by Departmental Representative, make changes to submitted shop drawings consistent with Contract Documents. Resubmit as directed by Departmental Representative.
- .5 Product Data:
  - .1 Submit five (5) copies of product data: manufacturer's catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products.
  - .2 Cross reference product data information to applicable portions on Contract Documents.
  - .3 Delete information not applicable to the Work.
  - .4 Submit product data minimum 5 days before undertaking respective work.
- .6 Samples:
  - .1 Submit samples: examples of materials, equipment, quality, finishes and workmanship.
  - .2 Where colour, pattern or texture is criterion, submit full range of samples.
  - .3 Reviewed and accepted samples will become standard of material and workmanship, against which installed work will be verified.
- .7 Submit photographs of surrounding properties, objects and structures liable to be damaged or be the subject of subsequent claims.

## **1.8 REGULATORY REQUIREMENTS**

- .1 References and Codes:
  - .1 Materials: new unless specified otherwise.
  - .2 Work to conform to the minimum applicable standards of the "References" indicated in the specification sections, the National Building Code of Canada 2015 (NBC) and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirement applies.
- .2 Building Smoking Environment:
  - .1 The Building is a non-smoking environment.
  - .2 Obey smoking restrictions on building property.
- .3 Hazardous Material Discovery:
  - .1 Stop work immediately when material resembling spray or trowel-applied asbestos, Polychlorinated Biphenyl (PCB), mould or other designated substance is encountered during demolition work.
    - .1 Take preventive measures and promptly notify Departmental Representative.
    - .2 Do not proceed until written instructions have been received from Departmental Representative.

## **1.9 FIRE SAFETY REQUIREMENTS**

- .1 Comply with both the National Building Code of Canada 2015 and the National Fire Code of Canada 2015 for safety of persons in buildings in the event of a fire and the protection of buildings from the effects of fire, as follows:
  - .1 The National Building Code (NBC): for fire safety and fire protection features that are required to be incorporated in a building during construction.
  - .2 The National Fire Code (NFC):
    - .1 The on-going maintenance and use of the fire safety and fire protection features incorporated in buildings.
    - .2 The conduct of activities that might cause fire hazards in and around buildings.
    - .3 Limitations on hazardous contents in and around buildings.
    - .4 The establishment of fire safety plans.
    - .5 Fire safety at construction and demolition sites.

## **1.10 QUALITY CONTROL**

- .1 Testing Laboratory Services:
  - .1 Engage testing laboratory firm and pay for costs of inspection and testing services, unless indicated otherwise.
  - .2 Provide safe working areas and assist with testing procedures, including provisions for materials or services and co-ordination, as required by testing agency and as authorized by Departmental Representative.
  - .3 Where tests indicate non-compliance with specifications, pay for initial test and all subsequent testing of work to verify acceptability of corrected work.
- .2 Mock-ups:

- .1 Prepare mock-ups for Work specifically requested in specification sections. Include for Work of Sections required to provide mock-ups.
- .2 Construct in locations acceptable to Departmental Representative.
- .3 Prepare mock-ups for Departmental Representative's review with reasonable promptness and in orderly sequence, to not cause delays in the Work.
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 If requested, Departmental Representative will assist in preparing schedule fixing dates for preparation.
- .6 Specification section identifies whether mock-up may remain as part of Work or if it is to be removed and when.

**1.11 HAZARDOUS MATERIALS**

- .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 the environment.
- .2 Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of Material Safety Data Sheets (MSDS).

**1.12 TEMPORARY UTILITIES**

- .1 Do not use existing services.
- .2 Provide service requirements for execution of the Work from off-site sources.

**1.13 CONSTRUCTION FACILITIES**

- .1 Hoists and Cranes:
  - .1 Provide hoists and cranes required to carry out the Work in accordance with IHSA recommendations and the Occupational Health and Safety Act.
- .2 Construction Yard Site Storage:
  - .1 Equip and maintain the storage space assigned by Departmental Representative.
  - .2 Provide site trailer, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table.
  - .3 Do not unreasonably encumber site with materials or equipment.
  - .4 Move stored products or equipment that interfere with operations of Departmental Representative or other contractors.
  - .5 Obtain and pay for use of additional storage or work areas needed for operations.
  - .6 Do not load or permit to load any part of work with weight or force that will endanger work.
- .3 Be responsible for construction yard and work area security.
- .4 Where security is reduced by work: provide temporary means to maintain security.
- .5 Provide Sanitary Facilities in designated construction yard. Keep facilities clean.
- .6 Signage:

- .1 Provide common-use signs related to traffic control, information, instruction, use of equipment, public safety devices, etcetera, in both official languages or by the use of commonly understood graphic symbols and to approval of the Departmental Representative.
- .2 No advertising will be permitted on this project.

#### **1.14 TEMPORARY BARRIERS AND ENCLOSURES**

- .1 Provide for occupant, visitor and vehicle access to building.
- .2 Hoarding:
  - .1 Design, erect and maintain temporary site enclosure as required by authority having jurisdiction.
  - .2 Provide one lockable truck entrance gate and one pedestrian door as directed and conforming to applicable traffic restrictions on adjacent streets. Equip gates with locks and keys. Paint public side of site enclosure in colour selected by Departmental Representative.
  - .3 Hoarding types.
    - .1 Type A: NCC standard hoarding as indicated on Contract Drawings.
    - .2 Type B: Standard galvanized wire mesh hoarding with galvanized steel posts, 2438 mm high.
      - .1 Rented hoardings acceptable: conforming to NCC standards.
- .3 Dust Control:
  - .1 Prevent spread of dust for protection of workers, finished areas of work and public.
  - .2 Maintain and relocate protection until such work is complete.
- .4 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders and scaffolding, independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.
- .5 Protection:
  - .1 Protect work against damage until take-over.
  - .2 Protect adjacent work against the spread of dust and dirt beyond the work areas.
  - .3 Protect operatives and other users of site from all hazards.

#### **1.15 COMMON PRODUCT REQUIREMENTS**

- .1 Quality of Work:
  - .1 Carry out work using qualified licensed workers or apprentices in accordance with Provincial Act respecting manpower vocational training and qualification.
  - .2 Permit employees registered in Provincial apprenticeship program to perform specific tasks only if under direct supervision of qualified licensed workers.
  - .3 Determine permitted activities and tasks by apprentices, based on level of training attended and demonstration of ability to perform specific duties.
- .2 Storage, Handling and Protection:
  - .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions.

- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove packaging or bundling until required in work.
- .3 Manufacturer's Instructions:
  - .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's written instructions.
  - .2 Do not rely on labels or enclosures provided with products.
  - .3 Obtain written instructions directly from manufacturers

#### **1.16 EXAMINATION AND PREPARATION**

- .1 Examine site and conditions likely to affect work and be familiar and conversant with existing conditions.
- .2 Provide photographs of surrounding properties, objects and structures liable to be damaged or be the subject of subsequent claims.
- .3 Take photographs and submit to Departmental Representative before commencement of work in any location. Assume responsibility for undocumented damage (pre-existing or not).
- .4 Take field measurements to verify or supplement dimensions.

#### **1.17 EXECUTION**

- .1 Cut, Patch and Make Good:
  - .1 Remove items so shown or specified.
  - .2 Patch and make good surfaces cut, damaged or disturbed, to Departmental Representative's approval. Match existing material, colour, finish and texture.
- .2 Unless otherwise specified, materials for removal become the Contractor's property. Take removed materials from site.

#### **1.18 WASTE MANAGEMENT**

- .1 Comply with Environmental Protection Act, Ontario Regulations: O. Reg. 102/94 – Waste Audits and Waste Reduction Work Plans; and O. Reg. 103/94 – Industrial, Commercial and Institutional Source Separation Programs; for waste management on construction and demolition projects.

#### **1.19 CLOSEOUT SUBMITTALS**

- .1 Additional material used in project listed under various Sections showing name of manufacturer and source of supply.
  - .1 Manufacturers' literature:
    - .1 Include suppliers' names, addresses and telephone numbers and components supplied.
    - .2 Identify components by a description and manufacturers part number.
- .2 Records:
  - .1 As work progresses, maintain accurate records to show deviations from contract drawings. Just prior to Departmental Representative's inspection for issuance of final certificate of completion, supply to the Departmental Representative one (1)

set of white prints with all deviations neatly inked in. The Departmental Representative will provide two sets of clean white prints for this purpose.

- .2 Include one complete set of final shop drawings (bound separately) indicating corrections and changes made during fabrication and installation.
- .3 Guarantees and Warranties:
  - .1 Before completion of work collect all manufacturer's guarantees or warranties and deposit with Departmental Representative.

#### **1.20 CLEANING**

- .1 Clean up as work progresses. At the end of each work period, and more often if ordered by the Departmental Representative, remove debris from site, neatly stack material for use, and clean up generally.
- .2 Upon completion remove scaffolding, temporary protection and surplus materials. Make good defects noted at this stage.
- .3 Clean re-installed existing glass railing panels and bronze railing elements.
- .4 Clean areas under contract to a condition equal to what previously existed and to approval of Departmental Representative.

#### **1.21 SECURITY CHECK**

- .1 All personnel employed on this project will be subject to security check. Obtain requisite clearance, as instructed, for each individual required to enter the premises.

#### **1.22 COST BREAKDOWN**

- .1 Before submitting first progress claim, submit breakdown of Contract Amount in detail as directed by Departmental Representative and aggregating the Contract Amount. After approval by Departmental Representative cost breakdown will be used as the basis of progress payments.

#### **Part 2 Products**

##### **2.1 NOT USED**

- .1 Not used.

#### **Part 3 Execution**

##### **3.1 NOT USED**

- .1 Not used.

**END OF SECTION**



## **PART 1 – GENERAL**

### **1.1 REFERENCES**

1. Federal Legislation
  1. Canada Labour Code, Part II, section 124 and 125. Canada Occupational Health and Safety Regulations
  2. Transportation of Dangerous Goods Act, 1992 (TDGA)
  3. Canada Consumer Product Safety Act
    1. Surface Coating Materials Regulations SOR/2005-109.
  4. Canadian Environmental Protection Act, 1999 (CEPA)
    1. PCB Regulations (SOR/2008-273)
    2. Federal Halocarbon Regulations, 2003 (SOR/2003-289)
2. Provincial Legislation
  1. Ontario Occupational Health and Safety Act, R.S.O. 1990, 2010 edition.
    1. Ontario Regulation 490/09 – Designated Substances (O.Reg. 490/09).
    2. Ontario Regulation 278/05 – Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations, (O.Reg. 278/05).
    3. Ontario Regulation 213/91 for Construction Projects (O.Reg. 213/91)
  2. Ontario Environmental Protection Act, R.R.O. 1990,
    1. Ontario Regulation 347/09, General – Waste Management (O.Reg. 347/09).
    2. Ontario Regulations 362/90 – Waste Management, PCBs (O.Reg. 362/90)
    3. Ontario Regulation 463/10, Ozone Depleting Substances and Other Halocarbons (O.Reg. 463/10).
3. Canadian General Standards Board (CGSB).
4. Canadian Standards Association (CSA International). CAN/CSA-Z94.4-11 - Respiratory Protection
5. Underwriters' Laboratories of Canada (ULC).

### **1.2 DEFINITIONS**

Asbestos-Containing Materials (ACMs): means material that contains 0.5 per cent or more asbestos by dry weight as per Ontario Regulation 278/05.

Friable Material: material that when dry can be crumbled, pulverized or powdered by hand pressure and includes such material that is crumbled, pulverized or powdered.

Time-weighted average exposure limit (TWAEEL): the time-weighted average airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day or work week as prescribed by Ontario Regulation 490/09 Designated Substances, as amended.



### 1.3 RELATED SECTIONS

Not used

### 1.4 DESIGNATED SUBSTANCES

Refer to Designated Substances Summary Report "Project Specific Designated Substances Survey, Various Gaps Repairs on the Masonry and Front Steps Project, Supreme Court of Canada, 301 Wellington Street, Ottawa, Ontario, prepared by DST Consulting Engineers Inc. (DST File No. GV-SO-022339) dated December 24, 2015 for the description of the methodology used to assess the designated substances within the project areas.

Confirm with the Departmental Representative that no additional designated substances have been brought to the project area prior to beginning work.

Additional designated substances and hazardous materials may exist outside the accessible survey area but are beyond the scope of this project.

Should any additional material, suspected to be a designated substance, be encountered within the project area, any disturbance of such material must be stopped, precautionary measures taken, and the Departmental Representative must be notified immediately. Do not proceed until written instructions have been received.

1. ACRYLONITRILE: Not Identified
2. ARSENIC: Not Identified
3. ASBESTOS: **Identified**

Bulk sampling and subsequent laboratory analysis has determined that the following materials contain regulated amounts of asbestos:

- Rough Plaster (two layers: light grey and dark grey) contains 1.67% and 1% Chrysotile asbestos, respectively. Approximately 5 square metres of damaged plaster and 1 square metre of plaster debris was noted on horizontal surfaces in room 0008. This material was also noted to be in good condition within rooms 0009 and 0010. This rough plaster, when intact, is considered to be non-friable unless disturbance results in the material becoming pulverized. Plaster debris, on floor and on other surfaces in room 0008 is considered a friable material.

4. BENZENE: Not Identified
5. COKE OVEN EMISSIONS: Not identified
6. ETHYLENE OXIDE: Not Identified
7. ISOCYANATES: Not Identified

#### 8. LEAD: **Identified**

No lead paint samples were collected by DST for lead content analysis, as all paints and surface coatings encountered in all of the project areas were in good condition and sampling without matrix interference (i.e. removing the paint without the substrate material) would have proved difficult. All paints and surface coatings, including structural steel coatings, in all of the project areas shall be assumed to contain detectable concentrations of lead, unless specific bulk sampling and laboratory analysis confirms otherwise.

Lead is also suspected to be present in the following materials:

- Solder on the joints of copper piping;
- Cast iron drainpipe joint caulking; and
- Emergency light batteries.

#### 9. MERCURY: **Identified**

Mercury is suspected to be present in the following:

- Fluorescent light fixtures containing fluorescent light tubes were observed throughout the project area. Fluorescent light tubes contain mercury in a vapour form and in the phosphor coating on the lamp tube.

#### 10. SILICA: **Identified**

Free crystalline silica is expected to be present in concrete, cement materials, masonry building materials, plaster, and suspended ceiling tiles.

#### 11. VINYL CHLORIDE MONOMER: Not Identified

#### 12. POLYCHLORINATED BIPHENYLS (PCBs): Not Identified

#### 13. MOULD: Not Identified

#### 14. HALOCARBONS: Not Identified

#### 15. OTHER HAZARDOUS MATERIALS: Not Identified

### 1.5 RECOMMENDATIONS

#### 1.5.1 ASBESTOS

All work must be done in accordance with O.Reg 278/05 (as amended).

1. The disturbance of ACMs on construction and demolition projects in the province of Ontario is governed by O.Reg 278/05, as amended. This regulation classifies all asbestos disturbances as Low Risk (Type 1), Moderate Risk (Type 2), or High Risk (Type 3), each of which has defined precautionary measures. All asbestos materials are subject to specific handling and disposal precautions, and must be removed prior to demolition. The Ontario Ministry of

Labour (MoL) must be notified of any project involving removal of more than a minor amount (e.g. typically 1 square metre) of friable asbestos material.

2. Identified rough plaster requires a minimum of Type 2 abatement procedures under Ontario Regulation 278/05, as amended, when disturbing/removing/repairing one (1) square metre or less of the material if the material is pulverized and becomes friable during disturbance. Should demolition, disturbance, or repair be required of more than one (1) square metre of friable ACM, Type 3 abatement procedures are required if the material becomes pulverized.
3. Disposal of asbestos waste must be done in accordance with "General – Waste Management" O.Reg 347/90 (as amended) under the Ontario Environmental Protection Act and the federal Transportation of Dangerous Goods Act. The waste must be disposed at a licensed waste disposal site. Proper notification must be issued to the Departmental Representative prior to transportation of waste.

#### 1.5.2 LEAD

1. Follow recommendations provided in the Ontario Ministry of Labour (MoL) Guideline entitled "Guideline: Lead on Construction Projects". This guideline classifies all lead disturbances as Type 1, Type 2a, Type 2b, Type 3a or Type 3b work, and assigns different levels of respiratory protection and work procedures for each classification.
2. Work procedures and personal protective equipment must be used to ensure that workers are not exposed to airborne lead levels that exceed the TWAEI of 0.05 milligram per cubic metre (mg/m<sup>3</sup>) prescribed by O.Reg 490/09.
3. The use of mechanically-powered tools or torches on lead-containing materials increases the concentration of airborne lead dust or fumes requiring more stringent respiratory protection and controlled work procedures.
  - a. The welding or high temperature cutting of lead-containing coatings or materials (e.g. a structural ceiling beam with a lead-containing coating) indoors or in a confined space is a Type 3a operation.
4. Even at low concentrations, there may be a potential for exposure to high concentrations of lead depending on the activities performed that disturb the lead-containing materials. At low lead concentrations, conducting a risk assessment to assess the potential for exposure is required to determine the need to follow precautionary measures.
5. Disposal of construction waste containing lead must be done in accordance with O.Reg 347/90 – General Waste Management, as amended, under the Ontario Environmental Protection Act and the federal Transportation of Dangerous Goods Act. The classification of the waste is dependent upon the result(s) of leachate test(s). The waste can be classified as "hazardous," "non-hazardous" or "registerable solid waste" depending on the results of the leachate test.

#### 1.5.3 MERCURY

1. All work involving disturbance of mercury-containing equipment must be done in accordance with O.Reg 490/09.
2. Follow recommendations provided in the MoL Guideline entitled "The Safe Handling of Mercury: A Guide for the Construction Industry". This document provides advice on how to reduce the risk of mercury exposure, and outlines clean-up methods for spills.
3. When removal of fluorescent light tubes is required, the tubes should be removed intact from the fixtures. Other sources of liquid mercury should be removed intact to prevent worker exposure.
4. Disposal of waste containing mercury must be done in accordance with "General – Waste Management" O.Reg 347/90 (as amended) under the Ontario Environmental Protection Act and the federal Transportation of Dangerous Goods Act.

#### 1.5.4 SILICA

1. Comply with Ontario Regulations O.Reg 490/09 when performing works that may disturb silica-containing materials. The regulation provides requirements for allowable exposure levels.
2. Silica dust can be generated through such processes as blasting, grinding, crushing, and sandblasting silica-containing material. Since silica is present in select materials within the project area, appropriate respiratory protection and ventilation must be donned during the demolition and modifications of these structures.
3. Follow recommendations provided in the MoL Guideline entitled "Guideline: Silica on Construction Projects". This document classifies all silica disturbances as Type 1, Type 2 or Type 3 work, and assigns different levels of respiratory protection and work procedures for each classification. These work procedures should be followed when performing work involving the disturbance of silica-containing materials.

**END OF SECTION**

**Part 1. General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 01 14 25 – Designated Substances Report.

**1.2 REFERENCES**

- .1 Province of Ontario
  - .1 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 – Updated January 1, 2016.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).

**1.3 SUBMITTALS**

- .1 Make submittals in accordance with Section 01 00 10 – General Instructions.
- .2 Submit Hazard Assessment Site-Specific Safety Plan within 5 days after date of Notice to Proceed and prior to commencement of Work. Hazard Assessment Site-Specific Safety Plan must include:
  - .1 Results of site specific safety hazard assessment.
  - .2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
  - .3 Document: indexed format and in a 3-ring binder.
- .3 Departmental Representative will review Contractor's Hazard Assessment Site-Specific Safety Plan and provide comments to Contractor within 7 days after receipt of plan.
  - .1 Revise plan as appropriate and resubmit plan to Departmental Representative within 2 days after receipt of comments from Departmental Representative.
  - .2 Departmental Representative review of Contractor's final Hazard Assessment Site-Specific Safety Plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .4 Submit proof of WSIB coverage within 7 days of contract award.
- .5 Submit proof of submission to authority having jurisdiction of Filing of Notice of Project.
- .6 Submit 2 copies of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative weekly.
- .7 Submit copies of reports or directions issued by Federal and Provincial health and safety inspectors.
- .8 Submit copies of incident and accident reports within 24 hours following occurrence.
- .9 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 00 10 – General Instructions.

- .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

#### **1.4 FILING OF NOTICE**

- .1 File Notice of Project with Provincial authorities prior to beginning of Work.

#### **1.5 SAFETY ASSESSMENT**

- .1 Perform site specific safety hazard assessment related to project.

#### **1.6 MEETINGS**

- .1 Schedule and administer Health and Safety meeting with Departmental Representative prior to commencement of Work.

#### **1.7 REGULATORY REQUIREMENTS**

- .1 Do Work in accordance with Section 01 00 10 – General Instructions.

#### **1.8 PROJECT/SITE CONDITIONS**

- .1 Work at site will involve contact with:
  - .1 Silica.

#### **1.9 GENERAL REQUIREMENTS**

- .1 Develop written Hazard Assessment Site-Specific Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Hazard Assessment Site-Specific Safety Plan must address project specifications.
- .2 Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

#### **1.10 RESPONSIBILITY**

- .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 extent that they may be affected by conduct of Work.
- .2 Assume Constructor role and responsibilities as described in the Ontario Occupational Health and Safety Act and Regulations for Construction Projects.
- .3 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial and local statutes, regulations, and ordinances, and with Hazard Assessment Site-Specific Safety Plan.

#### **1.11 COMPLIANCE REQUIREMENTS**

- .1 Comply with Ontario Occupational Health and Safety Act, R.S.O. 1990, c.0.1 and Ontario Regulations for Construction Projects, O.Reg. 213/91.

**1.12 UNFORSEEN HAZARDS**

- .1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work:
  - .1 Follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

**1.13 POSTING OF DOCUMENTS**

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province having jurisdiction, and in consultation with Departmental Representative.

**1.14 CORRECTION OF NON-COMPLIANCE**

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Departmental Representative may stop Work if non-compliance of health and safety regulations is not corrected.

**1.15 BLASTING**

- .1 Blasting or other use of explosives is not permitted.

**1.16 POWDER ACTUATED DEVICES**

- .1 Use powder actuated devices only after receipt of written permission from Departmental Representative.

**1.17 WORK STOPPAGE**

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not used.

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**END OF SECTION**