

## **1.0 GENERAL**

### **1.1 Description of Work**

- .1 In general, the Work includes, but is not necessarily limited to, the following:
  - .1 Remove and replace existing O/H door system and associated components such as control panel, sensors, traffic signal, power connection, etc.
  - .2 Provide new buried wire and conduit from the electrical room to the door.
  - .3 Provide new breakers in Panel EL3 in north electrical room to suit new overhead door connection.
  - .4 Remove and replace above ground wiring and conduit downstream of north junction box.
  - .5 Remove and replace PVC junction box with NEMA 4X type (stainless steel).
  - .6 Supply and install security cabling, devices, and equipment.
  - .7 Supply and install video intercom system cabling, devices and equipment.
  - .8 Supply and install data cabling, devices and equipment.
  - .9 Abatement of hazardous materials as identified by the Designated Substance Survey Report prior to completion of Work.

### **1.2 Work Sequence**

- .1 The Work area will be available within 5 business days of contract award. Contractor to confirm date of mobilization. System shutdowns required to perform the work shall be closely coordinated with the PMO, Facility Management team and Consultant.
- .2 Time and time limits stated within Bid submittal and Contract Documents are of the essence to the Contract. Perform work expeditiously and with adequate forces to complete the Contract Work within the time specified.

### **1.3 Schedule**

- .1 In conjunction with and in a form acceptable to the Consultant and Owner, provide within one week of contract award a schedule indicating phasing and procedures required to complete the Work within the submitted time frame.
- .2 Construction schedule shall reflect completion of all work under the Contract within the time specified and in accordance with these Specifications.
- .3 Submit a revised schedule to the Consultant if, after commencing the Work, the schedule fails to reflect actual progress or the Contractor wishes to make a major change to their approach. Submit a revised construction schedule in advance of beginning a revised approach.

### **1.4 Contractor's Use of Site**

- .1 Use of all equipment is to be restricted in accordance with noise by-laws. Contractor has access to the work areas with quiet work proceeding around the clock if desired.
- .2 Noise or dust generating work is to be performed between 0800 and 1700, Monday to Friday. Work outside of these hours must be approved by the Owner.
- .3 The buildings and parking garage are to remain open and accessible throughout the course of the Work. Due to the nature of the work site, the Contractor is required to coordinate the use of site, including any short term temporary closures with building operations staff. Access to other areas of building is not permitted unless supervised by representatives of Owner.
- .4 Coordinate work schedule with the Owner to minimize disruption of the site and building.
- .5 It is Contractor's responsibility to ensure the site, buildings and parking garage remains operational at all times and to perform work as required to keep exits and entrances available to users at all times.
- .6 Any work that requires closure of exits and entrances shall be undertaken between the hours of 7:00 P.M. to 7:00 A.M. Monday through Friday, and 9:00 A.M. to 5:00 P.M. on Saturdays, Sundays, and holidays.

- .7 Schedule operations to minimize interruption of the normal use of the site and building, and to comply with laws, ordinances, rules, and regulations relating to Work.
- .8 Confine construction equipment, temporary work, storage of products, waste products and debris, and operations of employees and subcontractors to limits indicated by laws, ordinances, permit, or Contract Documents and do not unreasonably encumber the Place of Work.
- .9 Construction-related debris shall not be permitted to accumulate on site where visible to users. Remove daily if necessary.
- .10 Do not close, obstruct, or store materials in roadways, sidewalks, or passageways without prior approval from the Owner. Do not interfere with safe passage to and from building and adjacent public sidewalks and roads. Move stored products or equipment that interfere with building operations.
- .11 Take all precautions and provide all required protection to maintain the safety of the general public.
- .12 No storage of materials or equipment is allowed outside designated work areas without Owner approval.
- .13 During transportation of materials or equipment through occupied areas, protect the public, property, and finishes from damage. All damage caused by the Contractor is to be repaired or rectified at the Contractor's expense.
- .14 Propane powered equipment not permitted within interior areas.
- .15 Arrange all construction access into occupied areas with the Owner to allow the Owner to provide proper notice, where required.
- .16 Maintain work areas and the vicinity clean and tidy to the satisfaction of the Owner and Consultant.
- .17 Obtain and pay for all permits required for completion of the Work, including the Building Permit. Do not start construction until the Building Permit has been issued. Provide copies of permits to Consultant and post on-site where required.

## **1.5 Environmental Allowance**

- .1 Include in Stipulated Sum, an allowance of \$5,000.00 for:

- .1 Abatement of additional Designated Substances not identified in the Designated Substance Survey report that has been included in the bid documents.
- .2 When actual costs are determined for the allowance, the Contract Price will be valued accordingly by a Change Order.

## **1.6 Temporary Field Offices and Sheds**

- .1 Provide or construct work sheds for storage of tools, equipment, and materials that may be damaged by weather.
- .2 Maintain sheds in a clean and orderly condition to Consultant's satisfaction.
- .3 Provide suitable hardware and locks on doors to sheds to reasonably secure them and keep locked when unsupervised.
- .4 Field sheds shall be weather tight and have floors elevated above grade.
- .5 Relocate sheds as required by the progress of the Work. Remove sheds when directed or when no longer required.

## **1.7 Electrical Power**

- .1 Discuss available power with the Owner prior to bidding.
- .2 Contractor shall pay for any alternations to the electrical system needed to accommodate the Contractor's equipment. Coordinate any required alterations with the Owner. Reinstate system to its original condition upon completion of the Work.
- .3 Owner will pay for electrical consumption from building sources made available by the Owner.

## **1.8 Water Supply**

- .1 Contractor shall pay for the cost of any temporary water connections or alterations required to perform the Work. Reinstate system to its original condition upon completion of the Work.
- .2 Owner will pay for water consumption from building sources made available by the Owner.

## **1.9 Sanitary Facilities**

- .1 Provide portable washrooms at time of initial mobilization and maintain throughout the course of work where washroom facilities are not available on-site for the Contractor's use. Locate where agreeable to the Owner.

## **1.10 Protection of Work and Property**

- .1 Take all reasonable precautions necessary to protect the Work and property from damage during performance of the Contract, and rectify any damage to the Work or property caused by the Contractor or its Subcontractors.
- .2 Protect all property from dust and damage. Clean interior areas that require access outside of working hours at the end of each work shift to provide a functional environment for the user.
- .3 Contain dust, dirt, construction debris, water, and fumes from the Work so as to not affect areas remaining in operation outside designated work areas. Damage to all property, mechanical equipment, motors, elevator equipment, fixtures, air intakes, etc. resulting from contamination is the responsibility of the Contractor.
- .4 Completely enclose and ventilate work areas (fresh air in and exhaust out) without allowing dust to escape from the work area. Exhaust system must filter dust out of the air before it is released into the atmosphere. All exhaust systems must be filtered and directed to the outside through ducting, which is to be installed in a manner acceptable to the Owner and Consultant. Clean and replace filters regularly.
- .5 Provide protection for all entrance and exit-ways, floors, walls, standing fixtures, air intakes, and equipment rooms.
- .6 Use temporary vestibules to hoard areas that are to be protected but still require access, such as elevator lobbies and stairs. Adjust pressurization (by providing necessary fans) to prevent dust from entering these areas.
- .7 Patch and repair all finishes or painted surfaces damaged during the course of the Work, including surfaces damaged by tape, fasteners, or similar materials during hoarding and protection.
- .8 Do not keep secure doors open for extended periods without the Owner's permission. Any resulting damage caused to building finishes or equipment, and any resulting property losses due to compromised building security, shall be the responsibility of the Contractor.

### **1.11 Construction Barriers and Enclosures**

- .1 All work areas are to be completely enclosed by hoarding and dust protection and only accessible to the Contractor, Owner, and Consultant.
- .2 Supply and construct hoarding, barriers, and enclosures as indicated in these Specifications, on Drawings, and as directed by the Consultant or Owner as construction progresses.
- .3 No extras will be entertained for hoarding, barriers, and enclosures after bid closing unless the scope of work significantly changes.
- .4 The following types of enclosures / hoarding systems will be required for this construction project:
  - .1 Full Height Dust Protection

This system consists of full height poly-weave tarping fastened to the slab surface and soffit with 2" x 4" construction grade wood nailers wedged tight to the slab surface and soffit with 2 x 4 studs or post shores at 4'-0" c.c. The seams of the poly-weave tarping, if any, are to be fastened together with duct tape.

    - .1 Main purpose of this system is to control dust and keep it from escaping work area, thus it must be dust tight.
- .5 All seams in poly-weave tarping are to be taped together to provide dust tight enclosure.
- .6 Repair anchor holes after construction hoarding is removed. Repair all finishes and painted surfaces damaged by fastening materials used as part of hoarding and protection systems.
- .7 Restrict access for unauthorized personnel by placing barricades or posting guards around areas of the Work. Unauthorized personnel means the public and anyone not directly involved with execution, supervision, or inspection.

### **1.12 Protection of Existing Exposed Facilities / Services**

- .1 Make allowance in price to cover all costs of temporary removal and replacement and/or relocation of existing electrical wiring and hardware required for completion of the Work.

- .2 Protect exposed conduit, fixtures, attached devices, wet sprinkler fire system plumbing, mechanical system components, louvers, and ducts or correct damages at own expense. Promptly report any damage to the Owner and Consultant.
- .3 Prior to commencing the Work, contact the Owner to locate all protective or alarm systems and sensors. Protect services against damage or interruption. Provide Owner with 48 hours minimum advance notice of any necessary interruption. All claims resulting from damage are the responsibility of the Contractor.
- .4 Protection of existing facility, finishes, etc. during project. Any damages caused by the Contractor to existing facilities will be the Contractor's responsibility to rectify. Refer to technical drawings and specifications prepared by the Consultant for additional information.
- .5 Restore landscaping beds in area of work to their original plantable state after Work is complete. Owner will arrange to remove all landscaping, including plants, shrubs, trees, etc., impacted by the work and store for replanting.
- .6 Take necessary precautions to eliminate fire hazards and to prevent damage to the Work, building materials, equipment, and other property, both public and private, having to do with the Work. Inspect the Work at least once a week for this purpose.

### **1.13 Walk-Through Inspection of Site**

- .1 Perform a thorough inspection of the site prior to the start of Work, and provide a written notice to the Consultant detailing all damaged property as well as all items that appear to be of poor working order or appearance (i.e. sign fixtures, dirt, etc.)
- .2 Upon receiving this notice, the Consultant and Owner will verify the validity of the items listed.
- .3 If written notice is not given within five days of commencement of Work, it will be assumed the Contractor reviewed the site and accepted the condition of the property as being free of damage.

- .4 Any damages not listed as part of the written notice of clause 1.13.1 above, found after completion of the Work will be the Contractor's responsibility to rectify. Complete rectifications in a timely and satisfactory manner.

#### **1.14 The Work, Work In Progress, Property, and Persons**

- .1 Protect the Work during construction from damage.
- .2 Provide protection as required to protect work in progress and other property from damage and to provide suitable conditions for the progress of finishing work.
- .3 Take reasonable and required measures, including those required by authorities having jurisdiction, to protect the public and those employed on the Work from bodily harm.
- .4 Comply with requirements of the Ontario Occupational Health and Safety Act and Regulations for Construction Projects.
- .5 Be prepared to provide respirators, dust protection, ear protection, hard hats, etc. for those employed by the Consultant and Owner on-site.
- .6 Direct all Subcontractors to protect their own work, existing property, adjacent public and private property, and work of other Sections from damage while working.

#### **1.15 Location of Existing Utilities**

- .1 Locate all existing utilities prior to construction and protect them during construction.

#### **1.16 Work Site Safety – Contractor is “Prime Contractor”**

- .1 Contractor shall, for the purposes of the Ontario Occupational Health and Safety Act, and for the duration of the Work and Contract:
  - .1 Be designated as “Prime Contractor” pertaining to safety at the “Work site”.
  - .2 Do everything reasonably practicable to establish and maintain a system or process for compliance with the Act and its regulations, as required to maintain the health and safety of all persons at the “Work site”.



- .2 Direct all subcontractors, workers, and any other persons at the “Work site” on safety related matters, to the extent required to fulfill its “Prime Contractor” responsibilities pursuant to the Act.

### **1.17 Material and Equipment**

- .1 Unless otherwise specified, provide, maintain, and pay for all materials, tools, machinery, equipment, temporary facilities, controls, and conveniences necessary for execution of the Work. All materials shall be new, of merchantable quality, and suitable for the intended purpose.
- .2 Unless otherwise specified, comply with manufacturer’s latest printed instructions for materials and installation methods. Notify the Consultant in writing of any conflict between Contract Documents and manufacturer’s instructions. Deliver, store, and maintain packaged materials with manufacturer’s seals and labels intact.

### **1.18 Coordination**

- .1 Contractor is responsible for coordination of trades. Lines of demarcation between Contractor’s work and trades’ work are sole responsibility of the Contractor. Consultant assumes no responsibility for division of the Work or for any jurisdiction regarding such division.
- .2 Contractor is responsible for coordinating with the Owner for on-site activity as it affects operation of the building.
- .3 Notify the Consultant at least 24 hours in advance for site review. No work shall be covered or concealed until the Consultant has reviewed it, unless informed by Consultant that a site review will not be performed. Such review does not absolve the Contractor from their responsibility to perform the Work in accordance with Contract Documents.

### **1.19 Cutting and Remedial Work**

- .1 Perform cutting and remedial work required to make affected parts of the Work come together properly.
- .2 Coordinate the Work so that cutting and remedial work are kept to a minimum.
- .3 Cutting and remedial work shall be performed by specialists familiar with the Products affected and in a manner that neither damages nor endangers the Work.

## **1.20 Waste Removal and Cleaning**

- .1 Maintain the Place of the Work free from unsightly or hazardous accumulations of waste materials and rubbish, and perform all required cleaning during the Work.
- .2 Provide on-site containers for collection of waste materials and rubbish.
- .3 Remove wastes that create hazardous conditions from the premises daily.
- .4 Dispose of waste products in strict accordance with product manufacturer Safety Data Sheets (SDS) and provincial waste control regulations. Drainage systems shall not be used to dispose of project wastes and materials.
- .5 Remove moisture sensitive equipment (i.e. exposed electrical and mechanical systems, etc.) or protect against moisture infiltration during washing and dust-generating activities.
- .6 Remove all construction-related grease, dust, dirt, stains, labels, fingerprints, over-spray, and other foreign materials immediately prior to Consultant's final review. Return all adjacent areas, equipment, duct work, etc. to the Owner in a dust-free condition. Leave site in a neat and tidy condition at completion of the Work.
- .7 Cover drains affected by or required for the Work with filter fabric to prevent debris from entering the drainage system.
- .8 Do not dispose of project waste and material in the drainage system.
- .9 Thoroughly clean all areas affected by the Work free of all dust, debris, construction material, waste, and rubbish immediately prior to final review and turn-over of the Work area to the Owner.

## **1.21 Superintendence**

- .1 Provide a full time on-site Superintendent who is responsible for quality, control, organization, and coordination of the Work.
- .2 Superintendent shall attend all site meetings.
- .3 Superintendent shall have a cell phone.
- .4 Superintendence shall be satisfactory to the Owner and Consultant.

- .5 Superintendence shall be deemed unsatisfactory and changes or additions to superintendence can be demanded by the Owner or Consultant when control, organization, or coordination of the Work is not adequate, quality of the Work does not meet Contract Document requirements, directions given in accordance with Contract Documents are not followed, or progress is behind schedule.

## **1.22 Administration of Project Meetings**

- .1 Consultant will preside at meetings.
  - .1 A representative of the Consultant will record minutes, including significant proceedings and decisions, and identifying "action by" parties.
  - .2 Consultant will reproduce and distribute copies of minutes to the Owner, Contractor, meeting participants, and affected parties not in attendance.
- .2 Consultant will schedule and administer project meetings.
  - .1 Prepare agenda for meetings.
  - .2 Distribute written notice of each unscheduled meeting three days in advance of meeting date to the Contractor, Owner, and relevant Subcontractors.
- .3 Contractor shall provide physical space and make arrangements for meetings on site.
- .4 Representatives of Contractor, Subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the party each represents.

## **1.23 Pre-Construction Meeting**

- .1 After award of Contract, a meeting of all parties in the Contract shall be held to discuss and resolve administrative procedures and responsibilities.
- .2 Representatives of the Owner, Consultant, Contractor, major Subcontractors, and construction review personnel will attend.
- .3 Consultant will establish a time and location for the meeting and notify concerned parties at least five days before the meeting.

- .4 Agenda to include the following:
  - .1 Appointment of official representatives of participants of the Work.
  - .2 Schedule of Work, progress scheduling.
  - .3 Shop drawings (if required) and schedule of shop drawing submissions.
  - .4 Requirements of temporary facilities, site signage, hoarding, dust protection, offices, storage sheds, utilities, fences.
  - .5 Delivery schedule of critical equipment.
  - .6 Site security.
  - .7 Contemplated change orders, procedures, approvals required.
  - .8 Take over procedures, acceptance, warranties.
  - .9 Monthly progress claims, administrative procedures, holdbacks.
  - .10 Appointment of inspection and testing agencies or firms.
  - .11 Insurance, transcript of policies.

#### **1.24 Progress Meeting**

- .1 During course of Work, the Consultant or Contractor shall schedule progress meetings every two weeks. Further progress meetings may be scheduled by the Consultant, Contractor, or Owner as required to expedite the Work.
- .2 Consultant, Contractor, major Subcontractors involved in the Work, and Owner, when required, will attend.
- .3 Consultant will notify parties minimum three days prior to scheduled meetings of any changes to time or place.
- .4 Agenda to include the following:
  - .1 Review, approval of minutes of previous meeting.
  - .2 Review of Work progress since previous meeting.
  - .3 Field observations, problems that impede construction schedule, conflicts.

- .4 Progress, schedule, during succeeding work period.
- .5 Corrective measures and procedures to regain projected schedule.
- .6 Revisions to construction schedule.
- .7 Review of off-site fabrication delivery schedules.
- .8 Review submittal schedules; expedite as required.
- .9 Maintenance of quality standards.
- .10 Pending changes and substitutions, Notices of Proposed Change, Change Orders.
- .11 Review proposed changes for effect on construction schedule and on completion date.
- .12 Other business.

**END OF SECTION**