

1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work.
- .2 Section 21 05 01 – Common Work Results – Mechanical.
- .3 Section 25 05 01 – EMCS: General Requirements.
- .4 Section 26 05 00 – Common Work Results – Electrical.

1.2 REFERENCES

- .1 Canadian Federal Legislation.
- .2 Canadian Environmental Protection Act (CEPA), 1988.
- .3 Canadian Environmental Assessment Act (CEAA), 1995.

1.3 EXISTING CONDITIONS AND DOCUMENTATION

- .1 Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied ASBESTOS be encountered in the course of demolition work, stop work and notify the Departmental Representative immediately. Do not proceed until written instructions have been received from the Departmental Representative.
- .2 Hazardous materials (if discovered) removal shall be treated as an additional expense; to be negotiated with the successful Contractor during the demolition phase of this project.
- .3 Drawings indicating the existing conditions have been provided based on the original SNC Lavalin design drawings, dated August, 2000. On-site conditions may vary somewhat from what is indicated on the drawings. Make allowances for actual on-site conditions.

1.4 PROTECTION

- .1 Protect all existing systems and premises. Be responsible for any damage and make good.

1.5 SUMMARY OF WORK

- .1 See also Section 01 11 00- Summary of Work.
- .2 Remove, re-locate, reinstate and/or replace with new - as indicated, to facilitate the Work described in the Specifications and shown on the Drawings.
- .3 Comply with the Departmental Representative Waste Reduction Procedure.
- .4 Hazardous Materials (if encountered) shall be removed in accordance with Provincial and/or Federal regulations, standards and guidelines. Notify the Departmental Representative if encountered and await further direction.

- .5 The Contractor is responsible to obtain and pay for all necessary permits and inspections as required by the specifications or local authorities to perform the Work.
- .6 The Contractor shall protect adjacent properties, vehicles and pedestrians. Provide all temporary works and protection for the complete scope including any associated fees.
- .7 The Contractor shall coordinate all work with the work of other trades on site.
- .8 The Contractor shall assume full responsibility for the protection and safe-keeping of all products that are stored on site.
- .9 Do all work in accordance with the requirements of the Halifax Regional Municipality (HRM) and the Province of Nova Scotia.
- .10 Do all work in accordance with the Fire Marshal's office.
- .11 Do all work in accordance with the Nova Scotia Department of Labour.
- .12 Do all work in accordance with the requirements set-forth by the local Nova Scotia Occupational Health & Safety.
- .13 All work must be coordinated with the requirements of the new construction which shall follow the completion of the demolition and disposal of redundant items. Work shall be completed as per Section 01 14 00 – Work Restrictions or as otherwise directed by the Departmental Representative.
- .14 Demolition and disposal shall consist of, but is not necessarily limited to, the items and systems identified in the Project scope of work.
- .15 Work of this Contract includes, but is not limited to, the replacement of the existing Domestic Cold Water (DCW) PVC potable water pressure piping system consisting of piping, fittings, valves, hangers, insulation, electrical heat tracing and controls. Refer also to the remainder of the Specifications and the Drawings (ie: Contract documents).
- .16 The project Work is located at the Bedford Institute of Oceanography (BIO) Jetty in Dartmouth, NS.
- .17 The Work includes Mechanical, Electrical and Controls, however, also included are specialized services of an independent qualified, approved and certified agency, whom will be engaged by this Contractor. The nature of this Work involves "Confined Space Entry" into the existing below grade pipe tunnel via the numerous access manholes (top-side of the Jetty). As such, only those people with the proper Training are permitted to enter the Work area. Furthermore, this Contractor shall engage the services of an experienced "Rescue Team". This specialist company shall be a Sub-Contractor to this Contractor.

- .18 Note that all new stainless steel (SS) pipe hangers are required for the insulated DCW PVC pressure piping (spaced every 1200 mm apart) c/w SS unistrut, SS nuts and washers, SS threaded rod.
- .19 Two rescue technicians will be required at a typical charge-out rate of \$60.00 per hour for the first 8 hours of a day; \$90.00 per hour thereafter. Weekends and Holidays are typically charged out at \$90.00 per hour per technician.
- A daily charge of \$295.00 will cover any and all equipment required for the job. The contents of the kit vary depending upon the needs. Rescue team companies typically do not charge the Contractor a rental on additional single item requirements, unless they are outside of their existing inventory.

Note that 15% HST is extra to HSE's rates/fees noted above.

Equipment that may be required for this site that will be included in the daily rate includes tripods, winches, gas detection equipment, technical rope rescue equipment, personal protective clothing, respiratory equipment including SCBA and SABA.

The Rescue Team specialist companies are fully equipped and prepared to utilize their staff as a safety watch and in the event of an emergency in any confined space, the technicians will evacuate all other spaces and perform the rescue as needed.

The Rescue Team technicians are typically highly experienced, active duty first emergency responders and most of these people serve as officers in their respective local fire services departments.

The Contractor shall submit all certifications and job references for review by the Departmental Representative.

2 PRODUCTS

2.1 EQUIPMENT

- .1 Equipment and heavy machinery used to meet or exceed all applicable emission requirements.
- .2 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

3 EXECUTION

3.1 PREPARATION

- .1 Review and thoroughly inspect site with the Departmental Representative to verify extent and location of items designated for removal and disposal, recycling and salvage.

- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .3 Notify and obtain approval of utility companies before starting demolition.

3.2 DEMOLITION – GENERAL

- .1 Take care not to damage or alter existing services that are to remain.
- .2 At end of each day's work, leave work in safe and stable condition. Protect parts not to be demolished at all times.
- .3 Demolish to minimize dusting.
- .4 Remove and dispose of demolished materials except where noted otherwise and in accordance with the Authorities Having Jurisdiction (AHJ).
- .5 Materials cannot be left on the grounds or within the Buildings. All Contractors and their materials must be accounted for daily. Co-ordinate materials storage on-site. All materials shall be secured.

3.3 SEQUENCES OF OPERATION

- .1 Schedule demolition to create the least amount of disturbance. Co-ordinate timing of work with the Departmental representative.
- .2 Any equipment, components, etc. deemed salvageable will be removed prior to the demolition.
- .3 Ensure that all debris is immediately taken away and all access and firefighting lanes and parking areas must be kept clear at all times.
- .4 Contractor to ensure all Mechanical systems, (i.e. ductwork, piping, etc.) are all disconnected, and that systems disconnected are not associated with the operational portion of the facility.
- .5 Remove the existing units made redundant by this work.
- .6 Disposal of Material:
 - .1 Dispose of materials not designated for salvage or reuse off site at authorized facilities and in accordance with the requirements of the Nova Scotia Department of Environment and Labour.
 - .2 Do not stockpile debris on site, remove from site immediately.

3.4 RESTORATION

- .1 Restore work areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas.

3.5 CLEANUP

- .1 Upon completion of work, remove debris, trim surfaces and leave work site clean.
- .2 Use only cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

3.6 EXISTING PIPING AND EQUIPMENT

- .1 Remove all piping and equipment as indicated on the Drawings in accordance with the AHJ and Provincial Regulations.

END OF SECTION