

## 1.1 DESCRIPTION OF WORK

- .1 The Work of the Project is defined by the Contract Documents and generally involves an electrical upgrade to the existing building that includes but is not limited to the following:
  - .1 New primary utility service to the site.
  - .2 Dual exterior pad mounted transformer and service switches.
  - .3 Dual 600V underground service entrances.
  - .4 Double ended service entrance switchboard to replace existing in H7.
  - .5 Replacement of double ended switchboards in H17 and O17.
  - .6 Replacement of 600V and 208V panels in various penthouses and electrical rooms.
  - .7 Replacement of motor starter and controls in various penthouses and electrical rooms.
  - .8 Installation of a new electronic monitoring system.
  - .9 Demolition and removal of existing switchgear.
  - .10 Various work to accommodate the above upgrades.
  - .11 Newfoundland Power will be responsible for the construction of the new overhead utility line to the site, up to the terminal poles and primary metering. Pad mounted transformers will be supplied by Newfoundland Power and installed by this Contractor to Newfoundland Power standards. Terminal pole to be installed by this Contractor to Newfoundland Power standards.
  - .12 Installation of all primary and secondary duct bank is the responsibility of this Contractor, including all required concrete, masts, and hardware at the terminal poles.
  - .13 Concrete pad construction for new transformers and switchgear is the responsibility of this Contractor.
  - .14 All Contribution in Aid of Construction (CIAC) payable to Newfoundland Power for the new line construction and pad mount transformer supply will be the responsibility of the Departmental Representative.
  - .15 Any additional Newfoundland Power costs incurred by the Contractor due to the phasing and execution of the work will be the responsibility of this Contractor.
  - .16 All cut and patch of existing surfaces to accommodate this work is the responsibility of this Contractor. All finishes and reinstatement is to be completed in accordance with these Specifications.
  - .17 All exposed surfaces resulting from the removal/reconfiguration of existing switchgear and equipment are to be repaired and finished to match adjacent existing conditions.
- .2 Type of Contract
  - .1 Project will be constructed under a single lump sum contract.

## 1.2 PROJECT INFORMATION

- .1 Project Identification: North West Atlantic Fisheries – Main Electrical Upgrade.
  - .1 Project Location: 80 East White Hills Road, St. John's, NL

- .2 Tenant: Department of Fisheries and Oceans.

### **1.3 FAMILIARIZATION WITH SITE**

- .1 Before submitting a bid, it is recommended that bidders visit the site to review and verify the form, nature and extent of the work, materials needed, the means of access and the temporary facilities required to perform the Work.
- .2 Obtain prior permission from the Departmental Representative before carrying out such

### **1.4 CODES AND STANDARDS**

- .1 Perform work in accordance with the National Building Code of Canada (NBC) 2015 and National Fire Code of Canada (NFC) 2015 and NFPA 101-2015 Life Safety Code, NFPA 1-2015 Fire Code and CEC C22.1 – Canadian Electrical Code 2015, and any other code of provincial or local application, including all amendments up to bid closing date, provided that in any case of conflict or discrepancy, the more stringent requirement shall apply.
- .2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

### **1.5 COORDINATION WITH TENANT OPERATIONS**

- .1 The Departmental Representative has the following Schedule of Operations and Events in place. Contractor to coordinate with Departmental Representative to ensure this Schedule is not disrupted Contractor to accommodate the following in their schedule. No delay claims associated with the following schedule will be entertained:
  - .1 Duration of Construction:
    - .1 Facility is open 5 days per week (Mon-Fri), 07:00-18:00.
    - .2 Any work requiring power outages will have to be conducted outside normal working hours.

### **1.6 INTERPRETATION OF DOCUMENTS**

- .1 For Federal Government projects, Division 01 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

### **1.7 TERM ENGINEER**

- .1 Unless specifically stated otherwise, the term Engineer where used in the Specifications and on the Drawings shall mean the Departmental Representative as defined in the General Conditions of the Contract.

### **1.8 SETTING OUT WORK**

- .1 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
- .2 Provide devices needed to lay out and construct work.
- .3 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.
- .4 Supply stakes and other survey markers required for laying out work.

## **1.9 COST BREAKDOWN**

- .1 Before submitting first progress claim submit breakdown of Contract Amount in detail as directed by Departmental Representative and aggregating contract amount. Required forms will be provided for application of progress payment.
- .2 List items of work numerically following the same division/section number system of the specification manual and thereafter sub-divide into major work components and building systems as directed by Departmental Representative.
- .3 Upon approval, cost breakdown will be used as basis for progress payment.

## **1.10 DOCUMENTS REQUIRED**

- .1 Maintain at job site, one copy each of the following:
  - .1 Contract Drawings.
  - .2 Specifications.
  - .3 Addenda and amendments.
  - .4 Reviewed Shop Drawings.
  - .5 List of outstanding shop drawings.
  - .6 Change Orders.
  - .7 Other modifications to Contract.
  - .8 Field Test Reports.
  - .9 Copy of Approved Work Schedule.
  - .10 Health and Safety Plan and other safety related documents.
  - .11 Other documents as stipulated elsewhere in the Contract Documents.

## **1.11 PERMITS**

- .1 In accordance with the General Conditions, obtain and pay for building permit, certificates, licenses and other permits as required by law, ordinances, rules and regulations of public authorities having jurisdiction of this district. (Municipal, Provincial, and Federal.)
- .2 Provide appropriate notifications of project to municipal and provincial inspection authorities.
- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work. Pay all applicable charges.
- .4 Submit to Departmental Representative, copy of application forms and approval documents received from above referenced authorities.

## **1.12 COORDINATION WITH OCCUPANTS**

- .1 Partial Tenant Occupancy: Tenant will occupy the premises during entire construction period, with the exception of areas under construction. Coordinate with Departmental Representative during construction operations to minimize conflicts and facilitate Tenant usage. Perform the Work so as not to interfere with Tenant's operations. Maintain existing exits unless otherwise indicated.

- .1 The building will remain open throughout the duration of the Contract. Coordinate with Departmental Representative to minimize interference with staff use of areas not under construction.
- .2 Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Departmental Representative and authorities having jurisdiction.
- .3 Provide not less than 72 hours' notice to Departmental Representative of activities that will affect Tenant's operations.
- .4 Any work that requires access to an area of the building or site that the Tenant or public have access to must occur after Tenant's regular work hours. Contractor is to ensure area is left in its original state for Tenant's use the next day.

### 1.13 ACCESS TO SITE

- .1 General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
  - .1 Please note that limited on-site parking is available for Contractor or its employees. Coordinate available parking capacity with Departmental Representative.
- .2 Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - .1 Limits: Where the Work involves site work, limit site disturbance, including earthwork and clearing of vegetation, to 12.2 m beyond building perimeter; 3 m beyond surface walkways, patios, surface parking, and utilities less than 300 mm in diameter; 4.5 m beyond primary roadway curbs and main utility branch trenches; and 7.6 m beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities, and playing fields) that require additional staging areas in order to limit compaction in the constructed area.
  - .2 Driveways, Walkways and Entrances: For Work involving renovations to an existing building or adjacent to other buildings then keep driveways and loading areas, and entrances serving premises clear and available to Tenant, Tenant's employees, and emergency vehicles at all times. **Do not use these areas for parking or storage of materials.**
    - .1 Schedule deliveries to minimize use of driveways and entrances by construction operations.
    - .2 Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- .3 Condition of Existing Building: Where the Work involves work on an existing building, Maintain portions of the existing building affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.

**1.14 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING**

- .1 Execute work with least possible interference or disturbance to building operations, occupants, public and normal use of premises. Arrange with Departmental Representative to facilitate execution of work.
- .2 Where security has been reduced by work of Contract, provide temporary means to maintain security.
- .3 Where elevators exist in building, only those assigned for Contractor's use may be used for moving workers and material within building. Protect walls of passenger elevators, to approval of Departmental Representative prior to use. Accept liability for damage, safety of equipment and overloading of existing equipment.
- .4 Provide temporary dust screens, barriers, warning signs in locations where renovation and alteration work is adjacent to areas which will be operative during such work.

**1.15 ROUGHING-IN**

- .1 Be responsible for obtaining manufacturer's literature and for correct roughing-in and hook-up of equipment, fixtures and appliances.

**1.16 CUTTING, FITTING AND PATCHING**

- .1 Ensure that cutting and patching required by all trades is included in total bid amount submitted for the work.
- .2 Execute cutting including excavation, fitting and patching required to make work fit properly.
- .3 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work. This includes patching of openings in existing work resulting from removal of existing services.
- .4 Do not cut, bore, or sleeve load-bearing members, except where specifically approved by Departmental Representative.
- .5 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.
- .6 Fit work airtight to pipes, sleeves ducts and conduits.

**1.17 CONCEALMENT**

- .1 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

**1.18 LOCATION OF FIXTURES**

- .1 Location of equipment, fixtures and outlets, shown or specified shall be considered as approximate. Actual location shall be as required to suit conditions at time of installation and as is reasonable.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.

- .3 Inform Departmental Representative when impending installation conflicts with other new or existing components. Follow directives for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Departmental Representative.

#### **1.19 EXISTING SERVICES**

- .1 Where work involves breaking into or connecting to existing services, carry out work at times directed by governing authorities, with minimum of disturbance to pedestrian, vehicular traffic and tenant operations.
- .2 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.
- .3 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. This includes disconnection of electrical power and communication services to tenant's operational areas. Adhere to approved schedule and provide notice to affected parties.
- .4 Provide temporary services when directed by Departmental Representative to maintain critical building and tenant systems.
- .5 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
- .6 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .7 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction over service. Record locations of maintained, re-routed and abandoned service lines.

#### **1.20 BILINGUAL NOTATIONS**

- .1 Any items supplied and installed under this contract which have operating instructions on them such as electrical equipment, etc., and which can be expected to be used by the public and building tenants, must have such operating instructions in bilingual format - English and French.
- .2 Factory embossed or recessed symbols illustrating equipment operation is an acceptable alternate to lettering.
- .3 Items supplied with factory - embossed or recessed lettering in one official language with an applied sticker or decal representing the second official language is not acceptable unless the Departmental Representative gives prior approval before any such items are ordered.
- .4 Internationally recognized colour coding is acceptable.
- .5 No extra costs will be paid for re-stocking or re-ordering of materials and equipment due to Contractor's failure to fully meet bilingual signage requirements specified herein.
- .6 Ensure that all trades are made aware of above requirements.

**1.21 BUILDING SMOKING ENVIRONMENT**

- .1 Comply with smoking restrictions.

**1.22 ASBESTOS DISCOVERY**

- .1 Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed with relevant work until written instructions have been received from Departmental Representative. Approved abatement work is to be completed in accordance with Division 2 requirements. Refer to Appendix A for known ACM Material present at the Site.

**1.23 CHANGES IN SCOPE**

- .1 Whenever it is proposed to make a change or changes in the design, agreement, or type of equipment called for in this Specification, the Contractor shall estimate the cost of same and submit detailed, itemized estimates of the costs of all apparatus, materials, and labour entering into the change or substitution.

**END OF SECTION**