

PART 1 - GENERAL

- 1.1 Description .1 In general, work under this contract consists of the furnishing of all plant, labour, equipment, and materials for the temporary wharf reinforcement Structure 402, at the public wharf in Lameque, Gloucester Co., NB. The work is to be completed in strict compliance with the plans and specifications as prepared for this project.
- 1.2 Statement of Work .1 In general, work under this Contract shall consist of, but not be limited to, the following:
- .1 The removal, stockpiling and reinstatement of in-situ material, used as granular backfill.
 - .2 The construction of a Berlin Wall which includes the supply and installation of driven H-Piles, precast concrete wall panels, timber lagging, blocking, steel tie-rods and concrete anchor block.
 - .3 The supply and installation of a galvanized steel channel grating walkway system gaping the top of the walls.
 - .4 The supply and installation of steel struts between the walls and other miscellaneous steel.
 - .5 The supply and installation of filter fabric.
 - .6 The supply and installation of R-5 rip-rap and base materials.
 - .7 The supply and installation of galvanized steel ladders with timber uprights.
 - .8 All materials, equipment and labour for excavation, backfilling and compaction as required to complete the work.
 - .9 All material removals, relocation work, reinstallation work, and patching to extent shown and as necessary to complete the work of this Contract.
 - .10 The appropriate disposal of all existing materials removed from the work and not designated by the Departmental Representative to be reinstalled or salvaged.
- .2 Work under this Contract is divided into descriptive sections which are not intended to identify absolute contractual limits. The Contractor is responsible for

organizing division of labour and supply of materials and equipment necessary to complete the project in all its parts as established in the Articles of the Agreement.

.3 All work under this Contract to be performed in such a manner as to meet all Environmental and Health and Safety requirements.

1.3 Schedule of Work

.1 The work to be carried out under this contract must be completed within the time limits set out in the terms of the Contract.

.2 Immediately upon award of contract, the Contractor will submit a schedule of work to the Departmental Representative, showing anticipated progress stages and final completion of work within time required by contract documents. All entries contained in unit price table will be entered on schedule using a horizontal bar graph method.

.3 Should Contractor find that he cannot maintain schedule as originally intended, he will immediately submit a revised schedule without being requested to do so by Departmental Representative and take the necessary action to have the project back on schedule.

1.4 Work Commencement

.1 The Contractor is to make every effort to ensure that sufficient material and equipment is delivered to site at the earliest possible date after award.

1.5 Familiarization with Site

.1 Parties intending to tender for this work are advised to visit the site and make their own estimates of facilities and difficulties attending execution of work, actual site and soil conditions, severity, fishing activities, exposure and uncertainty of weather and all other contingencies.

.2 Obtain prior permission from the Departmental Representative before carrying out such site inspection.

.3 Bidders are required to review the list of potential site hazards provided in Section 01 35 29 - Health and Safety Requirements.

.4 Bidders are required to wear all appropriate personal protective equipment and take all precautionary

- measures necessary to ensure their safety during any pre-tender site visit.
- .5 Contractor shall make own assessment of the site conditions, existing wharf structure and the difficulties in carrying out the work as specified.
- .6 Bidders are advised to consult the Tide Tables issued by Fisheries and Oceans as a guide to the tidal conditions affecting the work.
- 1.6 Reference Drawings .1 Reference drawings for the existing structures are available for viewing at Public Services Procurement Canada office at 1045 Main Street, Moncton, NB. Contact Persons: Jean Girouard
- .2 Jean Girouard 1506 229 2420
- 1.7 Site Conditions and New Construction .1 All Site Conditions that differ from the drawings or specifications must be communicated immediately to the departmental representative before commencement of the work.
- .2 Contractor to be aware that the existing steel sheet pile face is in very poor condition. Ensure work does not impact the stability of the existing wharf face and that it does not get damaged further during the work. Sequencing, demolition and construction plans are to be submitted for approval prior to start of work.
- .3 The Contractor is advised that Structure 401 may be under reconstruction prior to start of work under this contract. Plan and execute work in order to minimize interference.
- 1.8 Contractor's Use of Site .1 The Contractor is advised that the demolition/ construction operations, including storage of materials for this contract, must not interfere with the fishing activities and/or the operations at the wharf. Plan and execute work to minimize interferences. Consult harbour authority and follow their directions. The contact person is: Dave Haché, 506 336 7033 or Geatan Noel 506 336 5944.
- .2 The Contractor will be solely responsible for arranging

the storage and stockpiling of materials on or off the site. Any materials stored at the site which interfere with any of the day to day activities at or near the site will be moved promptly at the Contractor's expense upon request by the Departmental Representative.

.3 Exercise care so as not to obstruct or damage public and private property in the area.

.4 The contractor is advised that the wharf facilities and the access to the site may be used by other contractors and users.

1.9 Protection of Existing Services and Facilities

.1 It will be the responsibility of the Contractor to become fully acquainted with the existing services and take necessary steps to protect the services during construction operations.

.2 Contractor will take adequate precautions to protect existing concrete decks on adjacent structures and asphalt surfaces designated to remain undisturbed when operating tracked equipment.

.3 At completion of work, restore area to its original condition. Damage to the structure and property will be repaired by Contractor. Remove all construction materials, residue, excess, etc., and leave work site, adjacent access roads and wharf structures in pre-construction conditions.

1.10 Codes and Standards

.1 Perform work in accordance with the National Building Code of Canada and any other code of provincial or local application including all amendments up to project tender closing date provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.

.2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

1.11 Interpretation of Documents

.1 Supplementary to the Order of Precedence article of the General Conditions, the Division 01 Sections take precedence over the technical division sections of these Specifications.

- .9 Struts: Section 05 50 00 – Metal Fabrications.
 - .10 Miscellaneous Steel: Section 05 50 00 – Metal Fabrications.
 - .11 Dimension Timber: Section 06 30 00 – Dimension Timber.
 - .12 Filter Fabric: Section 31 32 21 – Geotextiles.
 - .13 Random Rip-Rap (R-5): Section 31 37 10 – Dense Stone Fill.
 - .14 H-Piles: Section 31 62 16 - Steel H-Piles.
 - .15 Granular Base: Section 32 11 23 – Granular Base Materials.
- .3 There will not be any separate payments made for the cost of snow and ice removal at the construction site, for access roads and storage sites or extra payment due to delays caused by ice movements and winter storms or because of interference by the operation of the harbour.
- .4 Pay applicable federal, provincial and municipal taxes.
- 1.15 Documents Required .1 Maintain at job site, one copy each of the following:
- .1 Contract Drawings
 - .2 Specifications
 - .3 Addenda
 - .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 Electrical Lock-Out
 - .12 Fire Safety Hot Work Permit
 - .13 Permits, Codes and Acts.
 - .14 Waste Management Plan
 - .15 Copy of New Brunswick Occupational Health and Safety Act.
 - .16 Other documents as stipulated elsewhere in the Contract Documents, Drawings and these Specifications.
- 1.16 Permits .1 In accordance with the General Conditions, obtain and pay for building permit, certificates, licenses and other

permits as required by municipal, provincial and federal authorities.

- .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.
- .4 Submit to Departmental Representative, copy of application forms and approval documents received from above referenced authorities.

1.17 Existing Services

- .1 Before commencing work, establish location and extent of service lines and notify Departmental Representative of findings in writing.
- .2 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 lighting. Adhere to approved schedule and provide notice to affected parties.
- .3 Be aware that the Harbour Facilities must be kept operational for the full duration of Work of this Contract. Services to areas used by the public, fishermen and harbour users must also be maintained at all times as directed.
- .4 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.
- .5 Removal and reinstatement of pipes, services, utilities, poles, etc., (in accordance with service providers' or owners' requirements) will be incidental to the Work.

1.18 Chart Datum

- .1 All elevations used in this specification and accompanying drawings are referred to the chart datum which is Lowest Normal Tides (L.N.T.) for the purpose of the contract. The value of the benchmark (B.M.) as

anticipated durations, planned dates for achieving key activities and major project milestones.

- .6 Work schedule must take into consideration and reflect the work phasing, and operational restrictions as indicated on drawings.
- .7 Schedule work in cooperation with the Departmental Representative. Incorporate within Work Schedule, items identified by Departmental Representative during review of schedule.
- .8 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
- .9 Ensure that all sub trades and subcontractors are made aware of the work restraints and operational restrictions specified.
- .10 Schedule Updates:
 - .1 Submit on a weekly basis or as otherwise directed by Departmental Representative.
 - .2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
 - .3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
- .11 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
- .12 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear,

- facilitate the general progress of the work and avoid situations of spatial interference.
- .2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.
- .3 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at own cost.
- 1.6 Other Contracts .1 Further contracts may be let during the period that this Contract is in progress.
- .2 Cooperate with other Contractors in carrying out their respective work and carry out all instructions from the Departmental Representative in this regard.
- .3 Connect properly and coordinate work with that of other Contractors.

END OF SECTION

of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations. Identify variations from Contract Documents and product or system limitations, which may be detrimental to successful performance of the complete Work.

.9 Contractor's responsibility for errors, omissions or deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative's review of submission, unless Departmental Representative gives written acceptance of specific deviations.

.10 Make changes or revision to submissions which Departmental Representative may require, consistent with Contract Documents and resubmit as directed by Departmental Representative. When resubmitting, identify in writing of any revisions other than those requested.

.11 Keep one reviewed copy of each submittal document on site for duration of Work.

1.3 Shop Drawings and
Product Data

.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, technical product data, brochures and other data to be provided by Contractor to illustrate details of a portion of Work.

.2 Shop Drawing Submittal Schedule:

.1 Submit, within 10 working days of contract award, in format acceptable to Departmental Representative, a submittal schedule listing all shop drawings to be submitted for project as specified in various sections of the Specifications.

.2 Schedule to indicate proposed submission date for each item, status of review and anticipated product delivery date to site. Track all submissions for entire project.

.3 As work progresses, revise schedule identifying items which have been reviewed and finalized and indicating those outstanding.

.4 Update schedule at stipulated dates or project

time intervals predetermined and agreed upon with Departmental Representative at commencement of Work.

- .3 Shop Drawing Quantities: submit sufficient copies required by the General Contractor and sub-contractors plus 3 copies which will be retained by Departmental Representative.
- .4 Shop Drawings Format:
 - .1 Opaque white prints or photocopies of original drawings or standard drawings modified to clearly illustrate work specific to project requirements. Maximum sheet size to be 1000 x 700 mm.
 - .2 Product Data from manufacturer's standard catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products, to be original full colour brochures, clearly marked indicating applicable data and deleting information not applicable to project.
 - .3 Non or poorly legible drawings, photocopies or facsimiles will not be accepted and returned not reviewed.
- .5 Shop Drawings Content:
 - .1 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where items or equipment attach or connect to other items or equipment, confirm that all interrelated work have been coordinated, regardless of section or trade from which the adjacent work is being supplied and installed.
 - .2 Supplement manufacturer's standard drawings and literature with additional information to provide details applicable to project.
 - .3 Delete information not applicable to project on all submittals.
- .6 Allow 14 calendar days for Departmental

Representative's review of each submission.

- .7 Adjustments or corrections made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, advise Departmental Representative in writing prior to proceeding with Work.
- .8 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections and comments are made, fabrication and installation may proceed upon receipt of shop drawings. If shop drawings are rejected and noted to be Resubmitted, do not proceed with that portion of work until resubmission and review of corrected shop drawings, through same submission procedures indicated above.
- .9 Be advised that costs and expenses incurred by Departmental Representative to conduct more than one review of incorrectly prepared shop drawing submittal for a particular material, equipment or component of work may be assessed against the Contractor in the form of a financial holdback to the Contract.
- .10 Accompany each submissions with transmittal letter containing:
 - .1 Date.
 - .2 Project title and project number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .11 Submissions shall include:
 - .1 Date and revision dates.
 - .2 Project title and project number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized Representative certifying approval of

at construction site unless pre-approved.

- .3 Notify Departmental Representative in writing, at time of submission, of deviations in samples from requirements of Contract Documents.
- .4 Adjustments made on samples by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
- .5 Make changes in samples which Departmental Representative may require, consistent with Contract Documents.
- .6 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

END OF SECTION

requirement, Departmental Representative will advise on the course of action to be followed.

- 1.7 Hot Work Authorization
- .1 Obtain Departmental Representative's written "Authorization to Proceed" before conducting any form of Hot Work on site.
 - .2 To obtain authorization submit to Departmental Representative:
 - .1 Contractor's typewritten Hot Work Procedures to be followed on site as specified below.
 - .2 Description of the type and frequency of Hot Work required.
 - .3 Sample Hot Work Permit to be used.
 - .3 Upon review and confirmation that effective fire safety measures will be implemented and followed during performance of hot work, Departmental Representative will give authorization to proceed as follows:
 - .1 Issue one written "Authorization to Proceed" covering the entire project for duration of work or;
 - .2 Subdivide the work into pre-determined, individual activities, each activity requiring a separately written authorization to proceed.
 - .4 Requirement for individual authorization will be based on:
 - .1 Nature or phasing of work;
 - .2 Risk to Facility operations;
 - .3 Quantity of various trades needing to perform hot work on project or;
 - .4 Other situation deemed necessary by Departmental Representative to ensure fire safety on premises.
 - .5 Do not perform any Hot Work until receipt of Departmental Representative's written "Authorization to Proceed" for that portion of work.
- 1.8 Hot Work Procedures
- .1 Develop and implement safety procedures and work practices to be followed during the performance of Hot Work.

- .2 Hot Work Procedures to include:
 - .1 Requirement to perform hazard assessment of site and immediate work area before hand for each hot work event in accordance with Safety Plan specified in section 01 35 29.
 - .2 Use of a Hot Work Permit system with individually written permit issued by Contractor's Superintendent to specific worker or subcontractor granting permission to proceed with Hot Work.
 - .3 Permit required for each Hot Work event.
 - .4 Designation of a person on site as a Fire Safety Watcher responsible to conduct a fire safety watch for a minimum duration of 60 minutes immediately following the completion of the Hot Work.
 - .5 Compliance with fire safety codes, standards and occupational health and safety regulations specified.
 - .3 Generic procedures, if used, must be edited and supplemented with pertinent information tailored to reflect specific project conditions. Label document as being the Hot Work Procedures for this contract.
 - .4 Procedures shall clearly establish responsibilities of:
 - .1 Worker performing hot work,
 - .2 Person issuing the Hot Work Permit,
 - .3 Fire Safety Watcher,
 - .4 Subcontractor(s) and Contractor.
 - .5 Brief all workers and subcontractors on Hot Work Procedures and of Permit system. Stringently enforce compliance.
 - .6 Failure to comply with fire safety procedures may result in the issue of a Non-Compliance notification as specified in Section 01 35 29.
- 1.9 Hot Work Permit .1 Hot Work Permit to include the following:
 - .1 Project name and project number;
 - .2 Area where hot work will be performed;
 - .3 Date of issue;

- .4 Description of hot work type needed;
 - .5 Special precautions to be followed, including type of fire extinguisher needed;
 - .6 Name and signature of permit issuer.
 - .7 Name of worker to which the permit is issued.
 - .8 Permit validity period not to exceed 8 hours. Indicate start time/date and termination time/date.
 - .9 Worker's signature with time/date of hot work completion.
 - .10 Stipulated time period of safety watch.
 - .11 Fire Safety Watcher's signature with time/date.
- .2 Permit to be typewritten form. Industry Standard forms shall only be used if all data specified above is included on form.
- .3 Each Hot Work Permit to be completed in full, signed and returned to Contractor's Superintendent for safe keeping on site.
- 1.10 Documents on Site
- .1 Keep Hot Work Permits and Hazard assessment documentation on site for duration of Work.
 - .2 Upon request, make these available to Departmental Representative or to authorized safety Representative for inspection.

END OF SECTION

PART 1 - GENERAL

<u>1.1</u>	<u>Related Sections</u>	.1	Section 01 35 29 Health and Safety Requirements.
<u>1.2</u>	<u>Description</u>	.1	Procedures to isolate and lockout includes electrical facility or other equipment from energy source.
<u>1.3</u>	<u>References</u>	.1	CSA C22.1-2002 - Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations.
		.2	CSA C22.3 No. 1-M87 (R2001) - Overhead Systems.
		.3	CSA C22.3 No. 7-94 (R2000) - Underground Systems.
		.4	COSH, Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
<u>1.4</u>	<u>Definitions</u>	.1	Electrical Facility: means any system, equipment, device, apparatus, wiring, conductor, assembly or part thereof that is used for the generation, transformation, transmission, distribution, storage, control, measurement or utilization of electrical energy, and that has an amperage and voltage that is dangerous to persons.
		.2	Guarantee of Isolation: means a guarantee by a competent person in control or in charge that a particular facility or equipment is isolated.
		.3	De-energize: in the electrical sense, that a piece of equipment is isolated and grounded, e.g. if the equipment is hot grounded, it cannot be considered de-energized (DEAD).
		.4	Guarded: means that an equipment or facility is covered, shielded, fenced, enclosed, inaccessible by location, or otherwise protected in a manner that, to the extent that is reasonably practicable, will prevent or reduce danger to any person who might touch or go near such item.
		.5	Isolate: means that an electrical facility, mechanical

equipment or machinery is separated or disconnected from every source of electrical, mechanical, hydraulic, pneumatic or other kind of energy that is capable of making it dangerous.

- .6 Live/alive: means that an electrical facility produces, contains, stores or is electrically connected to a source of alternating or direct current of an amperage and voltage that is dangerous or contains any hydraulic, pneumatic or other kind of energy that is capable of making the facility dangerous to persons.

1.5 Compliance Requirements.1

Perform lockouts in compliance with:

- .1 Canadian Electrical Code.
- .2 Federal and Provincial Occupational Health and Safety Acts and Regulations as specified in section 01 35 29.
- .3 Regulations and code of practice as applicable to mechanical equipment or other machinery being de-energized.
- .4 Procedures specified herein.

- .2 In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will advise on the course of action to be followed.

1.6 Submittals

- .1 Submit copy of proposed Lockout Procedures and sample of lockout tags for review.
- .2 Submit documentation within 14 calendar days of contract award. Do not proceed with work until submittal has been reviewed by the Departmental Representative.
- .3 Submit above documents in accordance with the submittal - general requirements specified in section 01 33 00.
- .4 Resubmit Lockout Procedures with noted revisions as may result from the Departmental Representative's review.

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- 1.7 Isolation of Existing Services
- .1 Obtain the Departmental Representative's written authorization prior to conducting work on an existing active, energized service or facility required as part of the work and before proceeding with lockout of such services or facility.
 - .2 To obtain authorization, submit to the Departmental Representative following documentation:
 - .1 Written Request for Isolation of the service or facility and;
 - .2 Copy of Contractor's Lockout Procedures.
 - .3 Make a Request for Isolation for each event, unless directed otherwise by the Departmental Representative, and as follows:
 - .1 Fill-out standard forms in current use at the Facility when so directed by the Departmental Representative or;
 - .2 Where no form exist at Facility, make request in writing identifying:
 - .1 Identification of system or equipment to be isolated, including its location;
 - .2 Time duration, indicating Start time & date and Completion time & date when isolation will be in effect.
 - .3 Voltage of service feed to system or equipment being isolated.
 - .4 Name of person making the request.
 - .4 Do not proceed until receipt of written notification from the Departmental Representative granting the Isolation Request and authorizing to proceed with the isolation of designated equipment or facility. The Departmental Representative may designate other individual at the Facility as the person authorized to grant the Isolation Request.
 - .5 Conduct safe, orderly shutdown of equipment or facilities, de-energize and isolate power and other sources of energy and lockout items in accordance with requirement of clause 1.8 below.

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- .6 Determine in advance, as much as possible, in cooperation with the Departmental Representative, the type and frequency of situations which will require a Request for Isolation. Follow the Departmental Representative's directives in this regard.
 - .7 Plan and schedule shut down of existing services in consultation with the Departmental Representative and the Facility Manager. Minimize impact and downtime of facility operations.
 - .8 Conduct hazard assessment as part of the planning process of isolating existing equipment and facilities. Hazard Assessments to conform with requirements of Health and Safety Section 01 35 29.
- 1.8 Lockouts
- .1 De-energize, isolate and lockout electrical facility, mechanical equipment and machinery from all potential sources of energy prior to working on such items.
 - .2 Develop and implement clear and specific lockout procedures to be followed as part of the Work.
 - .3 Prepare typed written Lockout Procedures describing safe work practices, procedures, worker responsibilities and sequence of activities to be followed on site by work force to safely isolate an active piece of equipment or electrical facility and effectively lockout and tagout it's sources of energy.
 - .4 Include as part of the Lockout Procedures a system of lockout permits managed by Contractor's Superintendent or other qualified person designated by him/her as being "in-charge" at the site.
 - .1 A lockout permit shall be issued to specific worker providing a Guarantee of Isolation before each event when work must be performed on a live equipment or electrical facility.
 - .2 Duties of .2 Duties of person managing the permit system to include:
 - .1 Issuance of permits and lockout tags to workers.
 - .2 Determining permit duration.

- .3 Maintaining record of permits and tags issued.
 - .4 Making a Request for Isolation to Departmental Representative when required as specified above.
 - .5 Designating a Safety Watcher, when one is required based on type of work.
 - .6 Ensuring equipment or facility has been properly isolated.
 - .7 Collecting and safekeeping lockout tags returned by workers as a record of the event.
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- .5 Clearly establish, describe and allocate responsibilities of:
 - .1 Workers.
 - .2 Person managing the lockout permit.
 - .3 Safety Watcher.
 - .4 Subcontractor(s) and General Contractor.
 - .6 Generic procedures, if used, must be edited and supplemented with pertinent information to reflect specific project requirements.
 - .1 Clearly label the document as being the Lockout procedures applicable to work of this contract.
 - .7 Use energy isolation lockout devices specifically designed and appropriate for type of facility or equipment being locked out.
 - .8 Use industry standard lockout tags.
 - .9 Provide appropriate safety grounding and guards as required.
- 1.9 Conformance
- .1 Ensure that lockout procedures, as established for project on site, are stringently followed. Enforce use and compliance by all workers.
 - .2 Brief all persons working on electrical facilities, mechanical and other equipment fed by an energy source on requirements of this section.
 - .3 Failure to perform lockouts in accordance with

regulatory requirements or follow procedures specified herein may result in the issuance of a Non-Compliance Notification at the Departmental Representative's discretion with possible disciplinary measures imposed as specified in section 01 35 29.

- 1.10 Documents _____
- .1 Post Lockout Procedures on site in common on Site location for viewing by workers.
 - .2 Keep copies of Request for Isolation submitted to the Departmental Representative and lockout procedures issued to workers during the course of work for full project duration.
 - .3 Upon request, make such data available to the Departmental Representative or to authorized safety representative for inspection.

END OF SECTION

construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.

.5 Submit revisions and updates made to the Plan during the course of Work.

.3 Submit name of designated Health & Safety Site Representative and support documentation specified in the Safety Plan.

.4 Submit building permit, compliance certificates and other permits obtained.

.5 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labour organization.

.1 Submit update of Letter of Good Standing whenever expiration date occurs during the period of Work.

.6 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.

.7 Submit copies of incident reports.

.8 Submit WHMIS MSDS - Material Safety Data Sheets.

1.3 Compliance Requirements

.1 Comply with Occupational Health and Safety Act for Province of New Brunswick, and General Regulations made pursuant to the Act.

.2 Comply with Canada Labour Code - Part II (entitled Occupational Health and Safety) and the Canada Occupational Health and Safety Regulations (COSH) as well as any other regulations made pursuant to the Act.

.1 The Canada Labour Code can be viewed at:
[www.http://laws.justice.gc.ca/en/L-2/](http://laws.justice.gc.ca/en/L-2/)

.2 COSH can be viewed at:
[www.http://laws.justice.gc.ca/eng/SOR-86-304/ne.html](http://laws.justice.gc.ca/eng/SOR-86-304/ne.html)

.3 A copy may be obtained at: Canadian Government Publishing Public Works &

Government Services Canada Ottawa, Ontario,
K1A 0S9 Tel: (819) 956-4800 (1-800-635-7943)
Publication No. L31-85/2000 E or F)

- .3 Observe construction safety measures of:
Part 8 of National Building Code.
Municipal by-laws and ordinances.
- .4 In case of conflict or discrepancy between above
specified requirements, the more stringent shall apply.
- .5 Maintain Workers Compensation Coverage in good
standing for duration of Contract. Provide proof of
clearance through submission of Letter in Good
Standing.
- .6 Medical Surveillance: Where prescribed by legislation
or regulation, obtain and maintain worker medical
surveillance documentation.
- 1.4 Responsibility .1 Be responsible for health and safety of persons on site,
safety of property on site and for protection of persons
and environment adjacent to the site to extent that they
may be affected by conduct of Work.
- .2 Comply with and enforce compliance by all workers,
sub-contractors and other persons granted access to
Work Site with safety requirements of Contract
Documents, applicable federal, provincial, and local
by-laws, regulations, and ordinances, and with
site-specific Health and Safety Plan.
- 1.5 Site Control and Access .1 Control the Work and entry points to Work Site.
Approve and grant access only to workers and
authorized persons. Immediately stop and remove
non-authorized persons.
 - .1 Departmental Representative will provide names
of those persons authorized by Departmental
Representative to enter onto Work Site and will
ensure that such authorized persons have the
required knowledge and training on Health and
Safety pertinent to their reason for being at the
site, however, Contractor remains responsible for
the health and safety of authorized persons while

at the Work Site.

- .2 Isolate Work Site from other areas of the premises by use of appropriate means.
 - .1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment.
 - .2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.
 - .3 Use professionally made signs with bilingual message in the 2 official languages or international known graphic symbols.
 - .3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.
 - .4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection authorities who require access to conduct tests or perform inspections.
 - .5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm. (Provide security guard where adequate protection cannot be achieved by other means).
- 1.6 Protection
- .1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.
 - .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.
- 1.7 Filling of Notice
- .1 File Notice of Project with pertinent provincial health and safety authorities prior to beginning of Work.
 - .1 Departmental Representative will assist in locating address if needed.

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- materials covered in ice.
 - .3 Ice in harbour.
 - .4 Hypothermia.
 - .3 Rusty nails, spikes, metal parts and bolts.
 - .4 Work under power lines.
 - .4 Facility on-going operations:
 - .1 Vessel movement.
 - .2 Loading and unloading on wharf.
 - .3 Fishers attending their vessels.
 - .4 Wharf traffic.
 - .2 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.
 - .3 Include above items in the hazard assessment of the Work.
 - .4 MSDS Data sheets of pertinent hazardous and controlled products stored on site can be obtained from Departmental Representative.
- 1.11 Meetings
- .1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work, at time, date and location determined by Departmental Representative. Ensure attendance of:
 - .1 Superintendent of Work
 - .2 Designated Health & Safety Site Representative
 - .3 Subcontractors
 - .2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.
 - .3 Keep documents on site.
- 1.12 Health and Safety Plan
- .1 Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.
 - .2 Health and Safety Plan shall include the following components:

- .1 List of health risks and safety hazards identified by hazard assessment.
 - .2 Control measures used to mitigate risks and hazards identified.
 - .3 On-site Contingency and Emergency Response Plan as specified below.
 - .4 On-site Communication Plan as specified below.
 - .5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
 - .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
- .3 On-site Contingency and Emergency Response Plan shall include:
- .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
 - .2 Evacuation Plan: site and floor plan layouts showing escape routes, marshalling areas. Details on alarm notification methods, fire drills, location of firefighting equipment and other related data.
 - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
 - .4 Emergency Contacts: name and telephone number of officials from:
 - .1 General Contractor and subcontractors.
 - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
 - .3 Local emergency resource organizations.
 - .5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.
- .4 On-site Communication Plan:
- .1 Procedures for sharing of work related safety

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- information to workers and subcontractors, including emergency and evacuation measures.
 - .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility users.
 - .5 Address all activities of the Work including those of subcontractors.
 - .6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractor arrive at Work Site.
 - .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.
 - .8 Post copy of the Plan, and updates, prominently on Work Site.
- 1.13 Safety Supervision
- .1 Employ Health & Safety Site Representative responsible for daily supervision of health and safety of the Work.
 - .2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
 - .1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work.
 - .2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
 - .3 Conduct site safety orientation session to persons granted access to Work Site.
 - .4 Ensure that persons allowed site access are knowledgeable and trained in health and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.
 - .5 Stop the Work as deemed necessary for reasons

of health and safety.

- .3 Health & Safety Site Representative must:
 - .1 Be qualified and competent person in occupational health and safety.
 - .2 Have site-related working experience specific to activities of the Work.
 - .3 Be on Work Site at all times during execution of the Work.
- .4 All supervisory personnel assigned to the Work shall also be competent persons.
- .5 Inspections:
 - .1 Conduct regularly scheduled safety inspections of the Work on a minimum bi-weekly basis. Record deficiencies and remedial action taken.
 - .2 Ensure that there is a follow up and confirm that remedial actions were taken.
- .6 Collaborate with the Health and Safety Site Representative, if the Departmental Representative has designated one.
- .7 Maintain on site the safety inspection reports and the site activity documentation.

1.14 Training

- .1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned task.
- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.
- .3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, 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.

1.15 Minimum Site
Safety Rules

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the

following minimum safety rules are obeyed by persons granted access to Work Site:

- .1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses and hearing protection.
- .2 Immediately report unsafe condition at site, near-miss accident, injury and damage.
- .3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
- .4 Obey warning signs and safety tags.

- .2 Brief persons of disciplinary protocols to be taken for non-compliance.

1.16 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 will stop Work if non-compliance of health and safety regulations is not corrected in a timely manner.

1.17 Incident Reporting

- .1 Investigate and report the following incidents to Departmental Representative:
 - .1 Incidents requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory Agency.
 - .2 Medical aid injuries.
 - .3 Property damage in excess of \$10,000.00,
 - .4 Interruptions to Facility operations resulting in an operational lost to a Federal department in excess of \$5000.00.
- .2 Submit report in writing.

1.18 Hazardous Products

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).
- .2 Keep MSDS data sheets for all products delivered to site.

- .1 Post on site.
 - .2 Submit copy to Departmental Representative.
- 1.19 Blasting .1 ~~Blasting or other use of explosives is not permitted on site without prior receipt of written permission from Departmental Representative.~~
- 1.20 Powder Actuated Devices .1 ~~Use powder actuated fastening devices only after receipt of written permission from Departmental Representative.~~
- 1.21 Confined Spaces .1 ~~Abide by occupational health and safety regulations regarding work in confined spaces.~~
- 1.22 Site Records .1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.
- 1.23 Posting of Documents .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.
- .2 Post other documents as specified herein, including:
 - .1 Site specific Health and Safety Plan.
 - .2 WHMIS data sheets.

END OF SECTION

body that contains water for at least part of each year.

.4 Alien species: refers to a species or subspecies introduced outside its normal distribution whose establishment and spread threaten ecosystems, habitats or species with economic or environmental harm.

.5 Buffer zone: a vegetated land that protects watercourses from adjacent land uses. It refers to the land adjacent to watercourses, such as streams, rivers, lakes, ponds, oceans, and wetlands, including the floodplain and the transitional lands between the watercourse and the drier upland areas.

1.4 Transportation

.1 Transport hazardous materials and hazardous waste in compliance with Federal Transportation of Dangerous Goods Act.

.2 Do not overload trucks when hauling material. Secure contents against spillage.

.3 Maintain trucks clean and free of mud, dirt and other foreign matter.

.4 Avoid potential release of contents and of any foreign matter onto highways, roads and access routes used for the Work. Take extra care when hauling hazardous materials. Immediately clean any spillage and soils.

.5 Before commencement of work, advise the Departmental Representative of the existing roads and temporary routes proposed to be used to access work areas and to haul material to and from the site.

1.5 Hazardous Material Handling

.1 Handle and store hazardous materials on site in accordance with WHMIS procedures and requirements.

.2 Store all hazardous liquids in location and manner to prevent their spillage into the environment.

.3 Maintain written inventory of all hazardous materials kept on site. List product name, quantity and storage date.

.4 Keep MSDS data sheets on site for all items.

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- 1.6 Petroleum, Oil
 and Lubricants
- .1 Comply with Federal and Provincial laws, regulations, codes and guidelines for the storage of fuel and petroleum products on site.
- .2 Do not place fuel storage tanks and store fuel or other petroleum products within a 30 metre buffer zone of watercourses and wetlands. Do not fuel or lubricate equipment within this 30 metre buffer zone. Obtain approval from Departmental Representative of acceptable location on site for fuel storage and equipment service.
- .3 Do not dump petroleum products or any other deleterious substances on ground or in the water.
- .4 Be diligent and take all necessary precautions to avoid spills and contaminate the soil and water (both surface and subsurface) when handling petroleum products on site and during fueling and servicing of vehicles and equipment.
- .5 Maintain on site appropriate emergency spill response equipment consisting of at least one 250-litre (55 gallon) overpack spill kit for containment and cleanup of spills.
- .6 Maintain vehicles and equipment in good working order to prevent leaks on site.
- .7 In the event of a petroleum spill, immediately notify the Departmental Representative and the Canadian Coast Guard (CCG) at 1-800-565-1633 (24 hour report line). Perform clean-up in accordance with all regulations and procedures stipulated by authority having jurisdiction.
- 1.7 Disposal of Wastes
- .1 Do not bury rubbish, demolition debris and waste materials on site.
- .2 Dispose and recycle demolition debris and waste materials in accordance with project waste management requirements specified in section 01 74 21.
- .3 Do not dispose of hazardous waste, volatile materials (such as mineral spirits, paints, thinners etc.) and

petroleum products into waterways, storm or sanitary sewers or in waste landfill sites.

.4 Dispose of hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.

.5 Concrete waste:

.1 Do not discharge residual or rejected concrete on site.

.2 Immediately clean any accidental release of concrete on site prior to solidification.

.3 Do not wash and clean concrete vehicles on site.

.4 Perform dumping of residual material and truck cleaning operations only at the concrete plant. Follow environmental regulations and good practices as approved by the Provincial Department of the Environment and other authorities having jurisdiction.

1.8 Water Quality

.1 Conduct dredging or excavation work of a watercourse or wetland in such a manner to limit turbidity and reduce sediment suspension in the water to an absolute minimum at all times.

.1 Maintain appropriate production speed and momentum of the dredging or excavation equipment. Make adjustments as required and as approved by the Departmental Representative.

.2 Strategically position the excavating equipment and haul vehicles to avoid over the water swings of excavated material whenever possible.

.2 Where work may affect the water quality adjacent to water intake lines used by Lobster Holding Facilities, Fish Processing Facilities and other harbour users, schedule work in cooperation with the Harbour Authority as directed by Departmental Representative to minimize interference and impact to harbour users.

.3 Visually monitor the water turbidity of the surrounding areas adjacent to the work and up to the established limit of 200 metres.

.1 Should excessive change occur in the turbidity

beyond the dredge limit which differs from existing conditions of the surrounding water bodies, such as a distinct color difference; notify the Departmental Representative to obtain appropriate mitigation measures to be followed.

- .4 Water quality during suction dredging:
 - .1 Minimize out-fall of the dredge material at the disposal site by placing the pipeline outfall at or near the water level surface.
 - .2 Restrict vessel traffic adjacent to the disposal site to an absolute minimum to avoid the re-suspension of dredged material from propeller wash.
 - .5 Water contamination by preservative treated wood:
 - .1 Preservative treated lumber and timber, whether plant or site treated, shall be cured for a minimum of 30 days from date of the treatment application before their installation in areas which will be in contact with the water.
 - .2 Do not cut treated wood lumber over the surface of a watercourse or wetland.
 - .3 Do not use liquid applied preservative products over the surface of a watercourse or wetland.
 - .4 Wood treated with Chromate Copper Arsenate (CCA) or Ammoniac Copper Zinc Arsenate (ACZA) must be CSA or AWPA approved.
 - .5 Do not use timber and lumber treated with creosote, petroleum and pentachlorophenol for any part of the Work.
 - .6 Do not wash down equipment within a 30 meter buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
- 1.9 Socioeconomic .1 Abide by municipal and provincial regulations for any
Restrictions restrictions on work performed during the night time and
on flood lighting of the site. Obtain applicable permits.
- .2 Place flood lights in opposite direction of adjacent
residential and business areas.

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- .3 Equipment and machinery with purposely designed mufflers to reduce noise on site to lowest possible level. Maintain mufflers in good operating condition at all times.
- 1.10 Bird and Habitat
- .1 Become knowledgeable with abide by the Migratory Birds Convention Act (MBCA) in regards to the protection of migratory birds, their eggs, nests and their young encountered on site and in the vicinity.
- .2 Minimize disturbance to all birds on site and adjacent areas during the entire course of the Work.
- .3 Do not approach concentrations of seabirds, waterfowl and shorebirds when anchoring equipment, accessing wharves or ferrying supplies.
- .4 During night time work, position flood lights in opposite direction of nearby bird nesting habitat.
- .5 Do not use beaches, dunes and other natural previously undisturbed areas of the site to conduct work unless specifically approved by the Departmental Representative.
- .6 Should nests of migratory birds in wetlands be encountered during work, immediately notify Departmental Representative for directives to be followed.
- .1 Do not disturb nest site and neighboring vegetation until nesting is completed.
- .2 Minimize work immediately adjacent to such areas until nesting is completed.
- .3 Protect these areas by following recommendations of Canadian Wildlife Service.
- 1.11 Fish and Fish Habitat
- .1 Be aware of the risk for contamination of the fish habitat at the site as a result of alien species being introduced in the water.
- .2 To minimize the possibility of fish habitat contamination, all construction equipment which will be immersed into the water of a watercourse, or has the possibility of

coming into contact with such water during the course of the work, must be cleaned and washed to ensure that they are free of marine growth and alien species.

- .1 Equipment shall include boats, barges, cranes, excavators, haul trucks, pumps, pipe lines and other all miscellaneous tools and equipment previously used in a marine environment.
- .3 Cleaning and washing of equipment shall be performed immediately upon their arrival at the site and before use in or over the body of water.
- .4 Conduct cleaning and washing operations as follows:
 - .1 Scrap and remove heavy accumulation of mud and dispose appropriately.
 - .2 Wash all surfaces of equipment by use of a pressurized fresh water supply.
 - .3 Immediately follow with application of a heavy sprayed coating of undiluted vinegar or other environmentally approved cleaning agent to thoroughly remove all plant matter, animals and sediments.
 - .4 Check and remove all plant, animal and sediment matter from the all bilges and filters.
 - .5 Drain standing water from equipment and let fully dry before use.
 - .6 Upon removal from the water, drain standing water from equipment and let fully dry before removal off the site.
- .5 Do not perform cleaning and wash down within a 30 metre buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
- .6 Record of Assurance Logbook:
 - .1 Maintain an on-going log of past and present usage and wash downs of all equipment to illustrate mitigation measures undertaken against fish habitat contamination by alien species.
 - .2 Write data in a hard cover bound logbook,
 - .3 Include the following:
 - .1 Date and location where equipment was previously used in a watercourse or

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- .2 wetland;
 - .2 Type of work performed.
 - .3 Dates of wash down for each piece of equipment;
 - .4 Cleaning method and cleaning agent(s) used.
-
- .7 Keep Record of Assurance Logbook updated from project to project. Upon request, submit logbook to Departmental Representative for review.
 - .8 Abide by requirements and recommendations of the Federal Department of Environment and the Department of Fisheries and Oceans - Habitat Protection and Sustainable Development Branch in cleaning and wash down of equipment.
- 1.12 Air Quality
- .1 Keep airborne dust and dirt resulting from the work on site to an absolute minimum.
 - .2 Apply dust control measures to roads, parking lots and work areas.
 - .3 Spray surfaces with water or other environmentally approved product. Use purposely suited equipment or machinery and apply in sufficient quantity and frequency to provide effective result and continued dust control during the entire course of the work.
 - .4 Do not use oil or any other petroleum products for dust control.
- 1.13 Fires
- .1 Fires and burning of rubbish on site is not permitted.

END OF SECTION

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- .1 Inspection and testing required by laws, ordinances, rules, regulations or orders of public authorities.
 - .2 Inspection and testing performed exclusively for Contractor's convenience.
 - .3 Tests as specified within various sections designated to be carried out by Contractor under the supervision of Departmental Representative.
- .2 Provide sufficient advance notice to Departmental Representative of time when the Work will be ready for testing by designated Testing Agency in order for Departmental Representative to make attendance arrangements with such Agency. When directed by Departmental Representative notify the Agency directly.
 - .3 When specified or directed, submit representative samples of materials, in required quantities, to Testing Agency for testing purposes. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
 - .4 Provide labour and facilities to obtain, handle and deliver samples.
 - .5 Provide sufficient space on site for Testing Agency's exclusive use to store equipment and cure test samples.
 - .6 Employment of Independent Inspection and Testing Agencies by Departmental Representative does not relax responsibility to perform Work in accordance with Contract Documents.
- 1.4 Access to Work
- .1 Facilitate Departmental Representative's access to Work. If part of Work is being fabricated at locations other than construction site, make preparations to allow access to such Work whenever it is in progress.
 - .2 Furnish labour and facility to provide access to the work being inspected and tested.
 - .3 Co-operate to facilitate such inspections and tests.

PART 1 - GENERAL

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| <u>1.1</u> | <u>Requirements of
Regulatory Agencies</u> | .1 | Prior to use, have weigh scales certified as meeting requirements of Statutes of Canada, Chapter 36, Weights and Measures Act 1970-71-72 and subsequent amendments. Display certificate in a prominent position. |
| <u>1.2</u> | <u>Measurement Procedures</u> | .1 | Include costs of certification, installation, maintenance and removal of scales or use of local commercial scales in items of work to be measured by mass. |
| <u>1.3</u> | <u>Equipment</u> | .1 | Weigh scales: electronic truck scale of sufficient capacity to weigh loaded vehicles in a single operation. |
| | | .2 | Existing certified commercial scales may be utilized if available and approved by Departmental Representative. |
| | | .3 | The supply of labor, materials, tools, equipment, protection, transportation, administration fees, profits and necessary financing, etc., to complete the work stipulated in this project, shall be included in each of the items at the locations. |
| <u>1.4</u> | <u>Scale House</u> | .1 | To enclose mass indicator and in which Departmental Representative's representative can perform work and maintain records. |
| | | .2 | To be weatherproof and have minimum 750 lx of illumination, one sliding window facing scale platform, one other window for cross ventilation, shelf desk at least 0.6 x 1.8 m, and heat to maintain inside temperature at 20°C. The entrance door is not to face onto scale platform. |
| <u>1.5</u> | <u>Operation</u> | .1 | Departmental Representative's inspector at scales will monitor weighing of materials when available. |
| | | .2 | Provide sufficient number of weigh tickets in triplicate, with consecutive serial numbers. Obtain Departmental Representative's approval of design. |
| | | .3 | Weigh slips to be signed by the Departmental Representative's inspector at time of delivery. |

PART 1 - GENERAL

- 1.1 Related Sections .1 Section 01 35 44 Environmental Protection Procedures for Marine Work.
- 1.2 General .1 Carry out work placing maximum emphasis on the areas of:
- .1 Waste reduction;
 - .2 Diversion of waste from landfill and;
 - .3 Material Recycling.
- 1.3 Waste Reduction .1 Develop waste reduction strategy for work.
- .2 Structure program to prioritize actions, with waste reduction as first priority, followed by salvage and recycling effort, then disposal as solid waste.
 - .3 Identify materials and equipment to be:
 - .1 Salvaged for resale by Contractor.
 - .2 Sent to recycling facility.
 - .3 Sent to waste processing/landfill site for their recycling effort.
 - .4 Disposed of in approved landfill site.
 - .4 Reduce construction waste during installation work. Undertake practices which will minimize waste and optimize full use of new materials on site, such as:
 - .1 Use of a central cutting area to allow for easy access to off-cuts;
 - .2 Use of off-cuts for blocking and bridging elsewhere.
 - .3 Use of effective and strategically placed facilities on site for storage and staging of left-over or partially cut materials (such as plywood, dimension timber, etc.) to allow for easy incorporation into work whenever possible avoiding unnecessary waste.
 - .5 Develop other strategies and innovative procedures to reduce waste.
- 1.4 Material Source Separation Process .1 Develop and implement material source separation process at commencement of work as part of

mobilization and waste management at site.

- .2 Provide on-site facilities to collect, handle and store anticipated quantities of reusable, salvageable and recyclable materials.
 - .3 Establish methods whereby hazardous and toxic waste materials, and their containers, encountered or used in the course work are properly isolated, stored on site and disposed in accordance with applicable laws and regulations from authorities having jurisdiction.
- 1.5 Disposal Requirements
- .1 Dispose of waste only at approved waste processing facility or landfill sites approved by authority having jurisdiction.
 - .2 Contact the authority having jurisdiction prior to commencement of work, to determine what, if any, construction waste materials have been banned from disposal in landfills. Take appropriate action to isolate such banned materials at site of work and dispose in strict accordance with provincial and municipal regulations.
 - .3 Collect, bundle and transport salvaged materials to be recycled in separated categories and condition as directed by recycling facility. Ship materials only to approved recycling facilities.
 - .4 Sale of salvaged items by Contractor to other parties not permitted on site.
- 1.6 Removal
- .1 Remove in their entirety all materials and objects specified for removal including all fastenings. Carefully remove materials designated to be reused.

END OF SECTION

PART 1 - GENERAL

- 1.1 Section Includes .1 Project Record Documents.
- 1.2 Project Records Documents .1 Departmental Representative will provide 2 white print sets of contract drawings and 2 copies of Specifications Manual specifically for "as-built" purposes.
- .2 Maintain at site one set of the contract drawings and specifications to record actual as-built site conditions.
- .3 Maintain up-to-date, real time as-built drawings and specifications in good condition and make available for inspection by the Departmental Representative upon request.
- .4 As-Built Drawings:
- .1 Record changes in red ink on the prints. Mark only on one set of prints and at completion of work, neatly transfer notations to second set (also by use of red ink).
- .2 Submit both sets to Departmental Representative prior to application for Certificate of Substantial Performance.
- .3 Stamp all drawings with "As-Built Drawings". Label and place Contractor's signature and date.
- .4 Show all modifications, substitutions and deviations from what is shown on the contract drawings or in specifications.
- .5 Record following information:
- .1 Depths of various elements of foundation in relation to survey datum.
- .2 Field changes of dimension and detail;
- .3 Location of all capped or terminated services and utilities;
- .4 All design elevations, sections, plans and details dimensioned and marked-up to consistently report finished installation conditions;
- .5 Any details produced in the course of the contract by the Departmental Representative to supplement or to change existing design drawings;

- .6 All change orders issued over the course of the contract must be documented on the finished as-built documents, accurately and consistently depicting the changed condition as it applies to all affected drawing details.

- .5 As-built Specifications: legibly mark in red each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly items substituted from that specified.
 - .2 Changes made by Addenda and Change Orders.
 - .3 Mark up both copies of specifications; stamp "as-built", sign and date similarly to drawings as per above clause.

- .6 Maintain As-built documents current as the contract progresses. Departmental Representative will conduct reviews and inspections of the documents on a regular basis. Failure to maintain as-built current and complete to satisfaction of the Departmental Representative shall be subject to financial penalties in the form of progress payment reductions and holdback assessments.

END OF SECTION
