

Project #: R.066229.001

**Iqaluit, Nunavut
Demolition Building 1082,
Airport Road, Iqaluit, Nunavut**

Solicitation # EW699-141676/A



<u>Section</u>	<u>Title</u>	<u>Pages</u>
00 00 01	List of Drawings and Appendices	1

Division 01 – General Requirements

01 11 00	Summary of Work	8
01 31 19	Project Meetings	5
01 32 18	Construction Progress Schedules - Bar (GANTT) Chart	3
01 33 00	Submittal Procedures	2
01 35 32	Site Specific Health and Safety Plan	11
01 35 43	Environmental Protection	4
01 41 00	Regulatory Requirements	4
01 45 00	Quality Control	2
01 53 00	Mobilization and Demobilization	2
01 77 00	Closeout Procedures	2
01 78 00	Closeout Submittals	3

Division 02 – Existing Conditions

02 41 16	Structure Demolition	5
02 41 23	Debris Removal	3
02 61 33	Hazardous Waste Material	8
02 82 11	Asbestos Abatement – Intermediate Precautions	5

Division 31 – Earthwork

31 22 15	Grading	3
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END OF SECTION

LIST OF DRAWINGS

<u>Drawing No.</u>	<u>Drawing Name</u>
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Figure 1	Site Location Plan
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Figure 2	Locations of Asbestos-Containing Materials
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Figure 3	Locations of Mercury-Containing Equipment and Smoke Detectors
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LIST OF APPENDICES

Appendix A	Site Photographs
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Appendix B	Material Summary Table
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PART 1 GENERAL

1.1 Precedence

- .1 Division 1 sections take precedence over technical specification sections in other Divisions of this specification.

1.2 Existing Conditions

.1 Existing Services

- .1 The site is supplied with drinking water and sewage disposal via the utilidor.
- .2 The site is supplied with electricity via an overhead cable from a hydro pole on Airport Road.

.2 Existing Routes

- .1 Access to the site is a gravel driveway from Airport Road

.3 Special Requirements

- .1 Submit Schedule in accordance with Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
- .2 No work adjacent to open water may commence until appropriate measures are taken to control sediment releases in water as prescribed under Sections 01 35 43 - Environmental Protection and 01 41 00 – Regulatory Requirements.

1.3 Background Information

- .1 The subject property is located on the east side of Airport Road in the City of Iqaluit. The property is approximately 0.6 hectares (1.5 acres) with a single story wood frame trailer structure, with metal cladding. The building is on City services for water, sewer and electrical power. The electric power comes to the building from a pole to the north east of the subject site. One transformer was observed on the pole. The sewer and water connection are believed to enter the building from the north side however this will have to be confirmed in the field at the time of demolition. The building is heated by two oil-fired forced air furnaces in the mechanical room. There is one 1,135 L oil tank located on the exterior of the building against the north wall. The tank appears in new condition and there is no evidence of leakage.
- .2 The Environment Canada Trailer Facility is located at 1082 Airport Road, Iqaluit in Nunavut. The interior is typically sheeted with gypsum board or wood/cellulose on the walls and ceiling and vinyl sheet flooring and carpet on the floor.
- .3 A demolition waste survey was completed to identify and quantify building materials and infrastructure including hazardous building materials and associated components of the Environment Canada Trailer Facility prior to demolition.
- .4 The results of previous assessments have identified potential hazards remaining on site which include, but are not limited to, the following:
 - .1 Non-Hazardous Waste and Debris
 - .2 Soils Impacted by Petroleum Hydrocarbons (PHC)
 - .1 The highest concentrations of benzene, toluene, ethylbenzene, xylene

(BTEX), and PHC fractions in soil reported in the 2009 Environmental Site Assessment (ESA) are as follows. The Canadian Council for Ministers of the Environment (CCME) guideline values for a coarse-grained soil and commercial land use are provided for reference.

PHC Parameter	Highest Reported Concentration, 2009 ESA Report (ppm)	CCME Commercial Guideline, coarse-grained soil (ppm)
Benzene	<0.005	0.03
Toluene	1	0.37
Ethylbenzene	2.9	0.082
Total xylenes	0.40	11
PHC Fraction 1	970	320
PHC Fraction 2	4,200	260
PHC Fraction 3	400	1,700
PHC Fraction 4	64	3,300

- .3 Asbestos Containing Materials
- .4 Hazardous materials (e.g. mercury-containing materials, such as thermostats)
- .5 Hazards that may be encountered at the site include, but are not limited to:
 - .1 Site conditions
 - .2 Debris
 - .3 Petroleum hydrocarbon contaminated soil
 - .4 Hazardous waste
 - .5 Asbestos
- .5 Supporting Documents include, but are not limited to:
 - .1 Demolition Waste Survey, Environment Canada Facility, 1082 Airport Road, Iqaluit, Nunavut, SENES Consultants, October 2013
 - .2 Phase II/III ESA Canadian Ice Building Services, Building 1082, Iqaluit, Nunavut, Franz Environmental Inc., January 2009.
- .6 The previously identified PHC-impacted soil will be dealt with in a separate contract.

1.4

Description of Work

- .1 Work for this Contract comprises the activities of demolition of Building 1082 in Iqaluit Site, including, but not limited to, the following:
 - .1 Mobilization and demobilization of personnel, equipment, support facilities and materials required to complete the Work as often as required.
 - .2 Upgrading and Maintenance of on-site access routes and laydown areas, as required, to facilitate construction activities and temporary storage.
 - .3 Utility decommissioning.
 - .4 Segregating and packaging Hazardous Materials. Hazardous Materials may include, but are not limited to:
 - .1 Asbestos-containing materials (e.g. vinyl sheet flooring).
 - .2 Mercury-containing materials (e.g. thermostats, fluorescent lamps)
 - .3 Lead-containing materials (e.g. paint);
 - .4 Halon-containing materials (e.g. fire extinguishers);
 - .5 Ozone-depleting substances (e.g. refrigerant)

- .6 Residual petroleum products (e.g. fuel in exterior above ground storage tank)
- .5 Transportation and disposal of Hazardous Materials to the Contractor's Designated Off-Site Disposal Facility.
- .6 Containerization, transport and disposal of Liquid Waste (remaining residual fuel in exterior tank) at Contractor's Designated Off-Site Contaminated Materials Disposal Facility.
- .7 Collecting, segregating and consolidation of non-hazardous waste and debris from across the site as well as transportation and disposal.
- .8 Re-grading and re-shaping of site as required.
- .9 Provision of the following site support services:
 - .1 Safety, fire protection, and medical services, as specified in Section 01 35 32 — Site Specific Health and Safety Plan.
 - .2 Worker Orientation Seminar, as specified below in 1.16

1.5 Potential Additional Work

- .1 Not used.

1.6 Definitions

- .1 Departmental Representative: Within the context of these Specifications, the term Departmental Representative refers to the person exercising the roles and attributes of Canada under the contract.
- .2 Departmental Representative's Authorized Personnel: Within the context of these Specifications, the term Departmental Representative's Authorized Personnel refers to personnel appointed by Departmental Representative or authorized on site by Departmental Representative. Departmental Representative's Authorized Personnel provide recommendations/technical guidance to Departmental Representative as required, for the enforcement of these specifications.
- .3 Contractor: Contractor retained to undertake the remediation Work as defined within the context of these specifications.
- .4 Contractor's Site Superintendent: Contractor's resident site representative, who is authorized to make decisions on behalf of Contractor.
- .5 The word "provide" means supply and install, operate, submit or any other procedure necessary to complete the work as intended.

1.7 Submittals

- .1 All submittals in accordance with Section 01 33 00 - Submittal Procedures. A submittal list for reference purposes only is attached at the rear of the document.

1.8 On-Site Documents

- .1 Maintain at job site, one copy each of the following:
 - .1 Contract drawings.
 - .2 Specifications.
 - .3 Requests for Clarification and responses.

- .4 Addenda.
- .5 Task Authorizations.
- .6 Change Orders.
- .7 Reviewed shop drawings.
- .8 Other modifications to Contract.
- .9 Previous site reports.
- .10 Copy of approved Work Schedule.
- .11 Manufacturers' installation and application instructions.
- .12 Material and Safety Data Sheets.
- .13 Site Specific Health and Safety Plan. Response Plan.
 - .1 Spill Contingency Plan.
 - .2 Fire Safety Plan.
 - .3 Emergency Response Plan.
- .14 Waste Disposal Work Plan.
- .15 Labour conditions and wage Schedules.
- .16 Up-to-date record drawings.
- .17 All applicable Territorial permits and licenses.
- .18 All applicable Federal permits and licenses.
- .19 All applicable municipal permits and licenses
- .20 Copies of manifests and bills of lading.
- .21 Workers' Safety and Compensation Commission (WSCC) Notification of Project.
- .22 Letter of Good Standing with WSCC.
- .23 Other documents as specified.

1.9 Work Schedule

- .1 Provide and maintain Work Schedule in accordance with instructions of Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
- .2 Keep the Departmental Representative advised of planned Work activities in accordance with the instructions of Section 01 33 00 – Submittal Procedures.

1.10 Contractor Use of Site

- .1 Use of site is unrestricted until substantial performance.
- .2 Coordinate use of premises under direction of Departmental Representative.

1.11 Examination of Site

- .1 Prior to mobilization of equipment and supplies, check the field conditions to ensure that the correct equipment, and supplies are being mobilized to site for the execution of the Work, and notify Departmental Representative in writing, of all matters which could prejudice proper execution of the Work. Provide a minimum of three (3) days notice to Departmental Representative prior to examining the site.
- .2 Commencement of mobilization constitutes acceptance of existing conditions, and verification of dimensions.

1.12 Departmental Representative Furnished Items

Not used.

1.13 Permits and Licenses

- .1 Be responsible for obtaining and paying for permits, licenses and approvals associated with the site work.
- .2 Register, obtain and pay for all required licenses and permits for individual tradesmen employed for Work as referenced in the various Sections of the Contract Specifications for the duration of employment.
- .3 Obtain and pay for any other licenses or permits required to perform the activities required on site.
- .4 Provide supplemental information to the regulators for any necessary license amendments or reporting requirements.
- .5 Pay all costs associated with complying with the requirements for the permits and licenses noted in the above clauses.

1.14 Site Supervision

- .1 Designate Contractor's Site Superintendent to be on site at all times during construction, to have full authority to make decisions for Contractor, to be knowledgeable of the requirements of the contract, and to act upon Departmental Representative's instructions.
- .2 Notify Departmental Representative one (1) week in advance of Site Superintendant change and provide updated organizational chart.

1.15 Additional Drawings

- .1 Departmental Representative may furnish additional drawings to assist with proper execution of the Work. These drawings will be issued for clarification only. Such drawings have the same meaning and intent as if they were included with plans referred to in Contract documents.

1.16 Worker Orientation Seminar

- .1 Develop, prior to the start of Work, course material for a Worker Orientation Seminar. The outline of this seminar will be approved by Departmental Representative and is intended to describe the demolition activities at the site, and provide instruction for the applicable health, safety, and environmental policies and regulations as related to the site Work activities.
- .2 Submit two (2) hard copies and one (1) electronic copy of the Worker Orientation Seminar course material to Departmental Representative for review at least one (1) week prior to the seminar. Include information describing the facility to be used for conducting the seminar. The Seminar will be conducted on the first day of the demolition site work or as directed by the Departmental Representative.
- .3 The Orientation Course will address, but is not necessarily limited to, the following topics:
 - .1 Project Communication
 - .1 Roles of Departmental Representative.
 - .2 Roles of Contractor and Contractor's authorized representatives.
 - .3 Lines of Project communication.

- .2 Demolition Activities (Scope of Work).
 - .1 Utility decommissioning.
 - .2 Demolition of structure.
 - .3 Collection, containerization, and transportation for disposal of non-hazardous waste and debris.
 - .4 Asbestos abatement.
 - .5 Collection, containerization, and transportation for disposal of hazardous waste material.
 - .6 Re-grading and/or reshaping the site
- .3 Overview of the Site
- .4 Project Organization/Schedule/Administration
 - .1 Personnel policies.
 - .2 Supervisory reporting relationships.
 - .3 Communication.
 - .4 Work Schedules and hours.
 - .5 Site rules.
- .5 Environmental Issues and Protection Procedures
 - .1 Climate.
 - .2 Land use.
 - .3 Water.
 - .4 Dust suppression.
 - .5 Heritage resources.
 - .6 Spill contingency plans/procedures.
 - .7 Training activities.
- .6 General Site Specific Health and Safety
 - .1 Team Work.
 - .2 Work attitudes/productivity.
 - .3 Anti-Harassment Policy.
 - .4 First aid procedures.
 - .5 Protective equipment and clothing.
 - .6 Safe operation of equipment and tools.
 - .7 WHMIS requirements.
 - .8 Climate.
 - .9 Work Specific Task Requirements
 - .10 Asbestos abatement.
 - .11 Demolition and material disposal.
 - .12 Transportation of Dangerous Goods (TDG).
 - .13 Environmental mitigation procedures.
 - .14 Emergency spill response training.
 - .15 Residual fuel collection and disposal/containerization.
- .4 On the first morning of the project, conduct Worker Orientation Seminars for site Workers (Contractor's Workforce), and Departmental Representative based on the course material approved by Departmental Representative.
- .5 Each person on site will attend the orientation seminar. Require each attendee to sign a record of attendance upon completion of the seminar. Retain, for Departmental Representative's review at any time, this record of attendance.

1.17 Measurement of Payment

- .1 Work under this contract will be paid for as follows:
 - .1 Lump sum pay items will be paid at the lump sum price tendered for each lump sum item listed in the Basis of Pricing Form.
 - .2 Unit price items will be paid at the unit price tendered for each unit price item listed in the Basis of Pricing Form.
 - .3 Miscellaneous Project costs will be paid at the lump sum price tendered for "Balance of Project Costs" (BOPC) on the Basis of Pricing Form.
- .2 Unit price items, lump sum pay items and provisional cost recoverable items will be paid under the Basis of Pricing which will form the Basis of Pricing Schedule of the proposed contract. All other items, whether specifically defined in the specific sections of the Specifications or not, will be paid under Item BOPC-1, Balance of Project Costs, in the Basis of Pricing Schedule.
- .3 Direct costs include all costs directly attributable to a particular pay item including fuel equipment, operators, materials, equipment maintenance and depreciation, etc. All direct costs for lump sum and unit price items are to be included in the appropriate price item in the Basis of Pricing Schedule.
- .4 Indirect costs include all costs not directly attributable to the pay items including profit, supervision, overhead, administration, Commercial General Liability (CGL) Insurance, WSCC payments, allowance for equipment maintenance and depreciation repairs, and any other relevant costs. All indirect costs associated with specific unit price or lump sum items will be included in Item BOPC-1, Balance of Project Costs, in the Basis of Pricing Schedule.
- .5 Include costs of any statement of or requirement for Work, goods or services required in this section that are not covered by appropriate payment clauses in other sections in Item BOPC-1, Balance of Project Costs, in the Basis of Pricing Schedule.
- .6 Notify Departmental Representative of planned Work activities in accordance with requirements of Section 01 33 00 - Submittal Procedures, and at least two (2) days in advance of operations to permit required measurements for payment.
- .7 All costs for the preparation of the Worker Orientation Seminar and for conducting the opening seminar in Iqaluit, including the preparation of meeting room facilities, as required, are to be included in the lump sum price for Worker Orientation Seminar, Item 01 11 00-1, as indicated in the Basis of Pricing Schedule.
- .8 Except as otherwise indicated work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

PART 1 GENERAL

1.1 Definitions

- .1 Project Start-Up Teleconference: conference call to be held within ten (10) days after Contract Award and to include the Contractor and departmental representatives.
- .2 Pre-Construction Meeting: teleconference meeting to be held prior to Contractor Mobilization to include the Contractor and departmental representatives. Interested persons representing Authorities Having Jurisdiction (AHJ) may also attend meeting.
- .5 Pre-Mobilization Site Visit: Contractor's visit to the site to check field conditions and obtain actual conditions required to ensure correct execution of the Work prior to site mobilization.
- .6 Construction Meeting: meeting to be held on-site at approximate half-way point during the demolition project and to include the Contractor and Departmental Representative.
- .7 Tailgate Meeting: meeting to be held on-site daily during the project and to include Contractor, construction staff and Departmental Representative.
- .8 Compliance Meeting: meeting to be held on-site in conjunction with the Construction Meeting and to include the Contractor and departmental representative. Persons representing AHJ may also attend.
- .9 Pre-Demobilization Meeting (Final Walk Over): meeting to be held on site and to include the Contractor and departmental representatives. Meeting to be held prior to the demobilization of personal, machinery, and equipment

1.2 Administrative

- .1 Responsibilities of Departmental Representative
 - .1 Schedule and administer Project meetings throughout the progress of the Work.
 - .2 Prepare agenda for meetings unless otherwise specified.
 - .3 Distribute written notice of each meeting five (5) days in advance of meeting date to the Departmental Representative.
 - .4 Preside at meetings unless otherwise specified.
 - .5 Record the meeting minutes unless otherwise specified. Include significant proceedings and decisions. Identify actions by parties.
 - .6 Reproduce and distribute copies of minutes within three (3) days after meetings and transmit to meeting participants and affected parties not in attendance.
- .2 Responsibilities of Contractor
 - .1 Provide physical space and make arrangements for meetings.
 - .2 Representative of Contractor, Sub-Contractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.3 Project Start-up Teleconference Meeting

- .1 Within ten (10) days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities. The meeting will be a teleconference between all parties in attendance.

- .2 Departmental Representative, Contractor, major Sub-Contractors, field inspectors and supervisors will be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum five (5) days before meeting.
- .4 Departmental Representative will chair the meeting and take minutes. Meeting will be informal and agenda to include the following:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Preliminary Schedule of Work.
 - .3 Preliminary Schedule of submission of Work Plan and Cost Breakdown and other submissions.
 - .4 Preliminary requirements for temporary facilities, site security, equipment and proposed methods of mobilization and demobilization.
 - .5 Set-up of Pre-Construction Meeting.

1.4 Pre-Construction Meeting

- .1 Request a teleconference meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Departmental Representative, Contractor, major Sub-Contractors, and supervisors will be in attendance.
- .3 Establish time of meeting and notify parties concerned minimum five (5) days before meeting.
- .4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .5 Agenda to include:
 - .1 Schedule of Work: in accordance with Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart.
 - .2 Submittal requirements in accordance with Section 01 33 00 – Submittal Procedures, and Section 01 78 00 – Closeout Submittals
 - .3 Schedule of submission in accordance with Section 01 33 00 - Submittal Procedures including but not limited to:
 - .1 Specific Health and Safety Plan;
 - .1 Emergency Response Plan;
 - .2 Spill Contingency Plan;
 - .2 Equipment to be used by Contractor.
 - .3 Location of equipment and proposed methods for mobilization and demobilization.
 - .3 Requirements for temporary facilities.
 - .4 Delivery Schedule of specified equipment.
 - .5 Site safety in accordance with Section 01 35 32 – Site Specific Health and Safety Plan.
 - .6 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
 - .7 Departmental Representative provided products.
 - .8 Monthly progress claims, administrative procedures, photographs, hold backs.
 - .9 Appointment of inspection and testing agencies or firms.
 - .10 Regulatory Issues.
 - .11 Project photograph requirements.

1.5 Pre-Mobilization Site Visit

- .1 Prior to mobilization, perform a Pre-Mobilization Site Visit to check field conditions and obtain actual conditions required to ensure correct execution of the Work. Notify Departmental Representative in writing by submitting a Pre-Mobilization Site Visit Report within seven (7) days of completing the visit, of all matters which could prejudice proper execution of the Work.

1.6 Construction Meetings

- .1 During course of Work, Departmental Representative will schedule and chair construction meeting.
- .2 Contractor, major Sub-Contractors involved in Work and Departmental Representative are to be in attendance.
- .3 Departmental Representative will record minutes of meetings and circulate to attending parties and affected parties not in attendance shortly after meeting.
- .4 Agenda should include but not limited to the following:
 - .1 Review of previous meetings.
 - .2 Review of Work progress.
 - .3 Field observations, problems, conflicts.
 - .4 Problems which impede construction Schedule.
 - .5 Review of off-site fabrication delivery Schedules.
 - .6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.
 - .7 Corrective measures and procedures to regain Projected Schedule.
 - .8 Revision to construction Schedule.
 - .9 Progress Schedule, during succeeding Work period.
 - .10 Review submittal Schedules: expedite as required.
 - .11 Maintenance of quality standards.
 - .12 Review proposed changes for affect on construction Schedule and on completion date.
 - .13 Environmental, Health, Safety and Security issues.
 - .14 Compliance items, correspondence from or expected visits from AHJ.
 - .15 Health and Safety Compliance
 - .16 Other business.
- .5 Provide written explanations on activities which are overrunning estimated time. If any such activities are on the critical path, indicate what corrective action will be taken to bring them back on Schedule.

1.7 Tailgate Meetings

- .1 Contractor to preside over daily tailgate meetings with all construction staff and document minutes with daily reporting requirements.

1.8 Pre-Demobilization Meeting (Final Walk Over)

- .1 A meeting of parties in contract to discuss the demobilization and close-out, and to resolve issues arising from same.
- .2 Departmental Representative, Contractor, major Sub-Contractors, field inspectors and supervisors will be in attendance.
- .3 Departmental Representative will preside.
- .5 Agenda may include:
 - .1 Health, safety and security issues.
 - .2 Schedules and action Contractor plans to remove material and equipment including packaged hazardous and non-hazardous materials from site and demobilization of equipment.
 - .3 Confirmation of quantities.
 - .4 Summary of interactions with Authority Having Jurisdiction (AHJ).
 - .5 Submittals relating to the transportation all waste (i.e bills of lading).
- .6 Departmental Representative will record minutes of meetings and circulate to attending parties and affected parties not in attendance within seven (7) days after meeting.

1.10 Submittals

- .1 Submit Preliminary Construction Schedule to Departmental Representative within five (5) working days of Contract Award which is to also include a chart for planning, monitoring and reporting of Project progress.
- .2 Submit requests for payment for review, and for transmittal to Departmental Representative.
- .3 Submit requests for interpretation of Contract Documents, and obtain instructions through Departmental Representative.
- .4 Submit and process substitutions through Departmental Representative.
- .5 Submit and process task authorizations and change orders through Departmental Representative.
- .6 Deliver closeout submittals for review to Departmental Representative.
- .7 Provide submittals to the Departmental Representative for review. Include submittals as noted in Section 01 33 00 – Submittal Procedures.

1.11 Measurement of Payment

- .1 Costs for the Project Start-up Teleconference, Pre-construction Meeting, Pre-Mobilization Site Visit, Construction Meeting, Final Walk Over, and Tailgate Meetings are incidental to the work.

- .2 Except as otherwise indicated herein, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Definitions

- .1 Activity: element of Work performed during course of Project. Activity normally has expected duration, and expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 Bar Chart (GANTT Chart): graphic display of Schedule-related information. In typical bar chart, activities or other Project elements are listed down left side of chart, dates are shown across top, and activity durations are shown as date-placed horizontal bars. Generally Bar Chart should be derived from commercially available computerized Project management system.
- .3 Baseline: original approved plan (for Project, Work package, or activity), plus or minus approved scope changes.
- .4 Construction Work Week: Monday to Sunday, inclusive, will provide seven (7) days Work week and define Schedule calendar working days as part of Bar (GANTT) Chart submission.
- .5 Duration: number of Work periods (not including holidays or other nonworking periods) required to complete activity or other Project element. Usually expressed as workdays or workweeks.
- .6 Milestone: significant event in Project, usually completion of major deliverable.
- .7 Project Schedule: planned dates for performing activities and the planned dates for meeting milestones. Dynamic, detailed record of tasks or activities that must be accomplished to satisfy Project objectives. Monitoring and control process involves using Project Schedule in executing and controlling activities and is used as basis for decision making throughout Project life cycle.

1.2 Requirements

- .1 Ensure detailed Schedule is practical and remains within specified Contract duration.
- .2 Plan to complete Work in accordance with prescribed milestones and time frame.
- .3 Provide and maintain a work schedule showing anticipated progress stages and final completion of work within time period required by Contract.
- .4 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.
- .5 Prepare the schedule using critical path analysis techniques, showing resource loading. Identify tasks that lie on the critical path. Show float where possible.

1.3 Submittals

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit Project Schedule to Departmental Representative within five (5) working days of

receipt of acceptance.

1.4 Project Schedule

- .1 Develop detailed Project Schedule.
- .2 Ensure detailed Project Schedule includes as a minimum milestone and activity types as follows:
 - .1 Award.
 - .2 Permits.
 - .4 Mobilization.
 - .5 Site Activities (expand as required to suit Contractor's task breakdown).
 - .6 Interim Certificate of Completion
 - .7 Demobilization
 - .8 Closeout Submittals
 - .9 Final Certificate of Completion
- .3 Submit preliminary construction progress Schedule in accordance with Section 01 33 00 - Submittal Procedures to Departmental Representative coordinated with Departmental Representative's Project Schedule.
- .4 After review, revise and resubmit Schedule to comply with revised Project Schedule.
- .5 During progress of Work revise and resubmit as directed by Departmental Representative.

1.5 Project Schedule Reporting

- .1 Update Project Schedule on a daily basis reflecting activity changes and completions, as well as activities in progress.
- .2 Include as part of Project Schedule a narrative summary report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.
- .3 Submit with Monthly Invoice the following: health and safety related performance measures, as required.

1.6 Project Meetings

- .1 Discuss Project Schedule at regular site meetings, identify activities that are behind Schedule and provide measures to regain slippage. Activities considered behind Schedule are those with projected start or completion dates later than current approved dates shown on baseline Schedule.
- .2 Weather related delays with their remedial measures will be discussed and negotiated.

1.7 Cost and Quantity Control

- .1 Provide a Contract Work Breakdown Structure (CWBS) based on Contractor's Cost Breakdown and any modifications requested by Departmental Representative as follows:
 - .1 CWBS to be an organization of the Work to be performed, services to be provided and data to be submitted by Contractor, as well as payments to be

- made to Contractor under the terms of the Contract.
- .2 The CWBS to clearly define the Work elements of each item of the CWBS.
- .3 The CWBS to include a breakdown of pay items included under Item BOPC -1, Balance of Project Costs in the Basis of Pricing Schedule. All unit price, lump sum, and provisional cost sum allowance pay items included in the Basis of Pricing Schedule to also be included in the CWBS.
- .4 Prepare the CWBS in computerized spreadsheet format compatible with the most recent release of Microsoft Excel software. Provide CWBS in hard copy format.
- .5 Submit the CWBS within 15 days following contract award date.

.2 Equipment and Material Control:

- .1 Record data on status of construction material and equipment and report upon Departmental Representative's request.

.3 Manpower Performance Measures:

- .1 Record and report manpower listing for each company employed under this Contract, including Sub-Contractors, detailing daily man-hours during the current month and cumulative total to date and report upon Departmental Representative's request.
- .2 Provide statistics related to lost time accidents upon Departmental Representative's request.
- .3 Provide statistical reporting as part of progress claim submission.

1.8 Measurement of Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Definition

- .1 Not used.

1.2 Administrative

- .1 Submit to Departmental Representative submittals listed for review. Submittal list is bound into specification section and is for information only. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by submittal is not to proceed until review is complete.
- .3 Present submittals in SI Metric units.
- .4 Where items or information is not produced in SI Metric units, converted values are acceptable.
- .5 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific Project will be returned without being examined and will be considered rejected.
- .6 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .8 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.
- .9 Keep one reviewed copy of each submission on site.

1.4 Photographs

- .1 Provide digital photos in "Joint Photographic Experts Group" (.jpg) format for Progress Photographs and Final Photographs.
- .2 Digital photographs to have a minimum of 2,592 x 1,944 pixel (5 Megapixel) resolution.
- .3 Progress and Final Photographs to be submitted on one compact disc (CD). Provide two (2) copies of the Photograph CD.
- .4 Printed (colour) copies of digital photographs:
 - .1 Size: 100 mm x 125 mm.
 - .2 Two digital photographs per 215 x 280 mm page.
 - .3 Pages to be white, of photographic quality paper and to be three-hole punched, ready for insertion into a three-ring binder. Binder(s) to be vinyl, hard-covered, 3

inch D ring, sized for 215 x 280 mm paper, with spine pocket.

- .5 Identification: Typewritten or generated by computer, the name and number of the Project on cover and spine of binder and CD case. Each photograph to be labelled with the digital photo file name positioned so as to not interfere with the view of the main activity or feature presented on the photograph. Also provide a description of each photograph in photographic log format. Photographic log to be included with each computer disk, CD, and binder. Description to include:
 - .1 Digital photograph file name
 - .1 Name and description of feature
 - .2 View direction
 - .3 Date of exposure.
 - .4 GPS location
 - .5 Before and after photographs of location.
- .6 Quantity: Provide sufficient number of photographs to adequately describe the Work activities carried out. A minimum of two photographs taken from two viewpoints are to be provided for each activity.
- .7 Provide two sets in two binders of digital photographs.
- .8 Submit final photographs prior to final progress payment request.

1.6 Measurement of Payment

- .1 All direct costs for the preparation of the photographic record as outlined above for the project are to be included in the lump sum price bid for Closeout Submittals, Item 01 78 00-1, as indicated in the Basis of Pricing Schedule.
- .2 Except as indicated above, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

PART 1 GENERAL

1.1 Site Specific Health and Safety Requirements

- .1 Maintain and complete all health and safety, fire safety, and environmental compliance activities in accordance with applicable sections and AHJ.
- .2 Compliance concerns are to be discussed as part of Pre-Construction teleconference and the Construction Meeting held on site, as directed by Departmental Representative. At the discretion of the Departmental Representative a standalone Compliance Meeting may be called.
- .3 The intent of the compliance meeting is to review reporting and inspection requirements to meet the intent of Government of Nunavut *Occupational Health & Safety Regulations*, regulatory, and other requirements as may be required.
- .4 Compliance meetings to be held at the Work site.
- .5 Departmental Representative will record minutes, chair the meeting and distribute minutes to parties of record prior to the next Scheduled meeting.
- .6 Attendees:
 - .1 Contractor: Manager and/or Supervisor(s), representatives of major Sub-Contractors, and others as necessary.
 - .2 Departmental Representative, and representatives of Independent Inspection Agencies.
- .7 Agenda:
 - .1 Review site safety and security issues.
 - .2 Review and approval of minutes of previous meeting as required.
 - .3 Review of items of significance that could affect Work.
 - .4 Inspect the site, as determined by the Departmental Representative or as dictated by the AHJ.
 - .5 Identify and record field observations, problems, and conflicts that must be noted in reports required by the AHJ.
 - .6 Identify corrective measures and procedures to regain approval from AHJ.
 - .7 Identification of requirements for maintenance of quality standards needed for compliance with applicable Codes and Legislation.
 - .8 Review environmental and regulatory compliance.
 - .9 Other topics for discussion as appropriate to current status of the Work.

1.2 Submittals

- .1 Submit Site Specific Health and Safety Plan no later than 15 days after contract award to the Departmental Representative to review. Any items, which are identified as missing, will be added and the plan revised, so as to incorporate the additional items. Submit the revised safety plan to the AHJ for review and recommendations to ensure all elements required by the Nunavut Occupation Health and Safety Act, OSHA Regulations, other AHJ, and Contract Specifications have been addressed.
- .2 All submittals in accordance with Section 01 33 00 - Submittal Procedures
- .3 The Site Specific Health and Safety Plan will include, but is not limited to the following

sections:

- .1 A Statement of Contractor's Safety Policy.
 - .2 Safety Responsibilities of all on-site personnel.
 - .3 Safe Work Practices and/or Job Procedures.
 - .4 Results of safety and health risk or hazard analysis for demolition activities, asbestos abatement activities, handling and transporting hazardous waste activities, handling and transporting non-hazardous waste activities and working in environments containing visible mould growth.
 - .5 Procedures for, but not limited to, cold weather work, asbestos abatement work and general worker health and safety.
 - .6 Procedures for confined space entry.
 - .7 Name and telephone number of Contractor's corporate Safety Officer and on-site Safety Representative.
 - .8 Emergency Response Plan.
 - .9 Fire Safety Plan
 - .10 Spill Contingency Plan
 - .11 Personal Protective Equipment Plan
 - .12 Medical Emergency Plan
- .4 Conduct and submit to the Departmental Representative, a site assessment of deficiencies in health, safety, medical/first aid supplies. Submit to Departmental Representative and the PWGSC project manager a Schedule for upgrading deficiencies to meet requirements of AHJ.

1.3

Construction Safety Measures

- .1 Observe and enforce construction safety measures required by the latest revisions of: Canada Labour Code Part II, National Building Code of Canada, National Fire Code of Canada, Workers' Safety and Compensation Commission, the applicable Occupational Health and Safety Regulations, and Territorial and local statutes and authorities.
- .2 In the event of discrepancies between any requirements of the above listed authorities, the more stringent requirements will govern.
- .3 Arrange regular safety meetings, to be held no less frequently than once per week. Record the minutes of such meetings and maintain a complete file for review by the appropriate authorities. Submit a copy of these meeting minutes to Departmental Representative within three (3) days of the meeting.
- .4 Maintain at the site, PPE such as safety hats with liners, safety clear glasses, safety hi-visibility vests for use by AHJ and approved visitors. Maintain a supply of ear plugs.
- .5 Maintain a supply of Tyvek or equivalent suites of various sizes as required for Contractor's staff, Departmental Representative and up to three visitors for the duration of the Work.
- .6 Comply with all applicable health and safety policies and procedures.
- .7 Departmental Representative or his representative has the authority to stop Work on the contract if, in his/her opinion, the Work is being performed in an unsafe manner as required by the applicable safety legislation.
- .8 Prepare and coordinate a Contingency and Emergency Response Plan with contributions

from appropriate authorities including, but not limited to, Government of Nunavut *Occupational Health & Safety Regulations*, Hospitals, RCMP, Ministry of Transportation, and Ministry of Health. Plan will identify off site Emergency Response Coordinator through whom all information and coordination will flow in the event of an incident.

- .9 Verify that emergency procedures including appropriate First Aid facilities and First Aid personnel are in place at the Work Site. First aid facilities and First Aid personnel must be in compliance with the Government of Nunavut *Occupational Health & Safety Regulations*.
- .10 Verify that procedures meet the WSCC and Human Resources and Skills Development Canada (HRSDC) requirements.
- .11 Develop, as part of Site Specific Health and Safety Plan written Contaminated Site Working and Decontamination procedures. Working procedures to outline suitable safety clothing (PPE) requirements for different operations including but not limited to:
 - 1. Abatement of the known asbestos-containing material (i.e removal of the flooring);
 - 2. Demolition operations (i.e consolidation of materials for transport)
- .12 Working Procedures and Decontamination procedures consistent with requirements OSHA's 29 CFR 1910.120 HAZWOPER and territorial environmental regulations for:
 - .1 Working activities, where employees are likely to be exposed to 50% of Threshold Limit Values (TLV) listed by American Conference of Governmental Hygienists (ACGIH), TLVs and BEIs based on documentation of Threshold Limit Values (TLV) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEI) 2004 and amendments thereto.
- .13 Hazardous Material Discovery
 - .1 Immediately stop Work and notify Departmental Representative for further instructions with respect to abatement procedures required for unknown asbestos conditions encountered when Work occurs in areas having materials resembling asbestos during course of Work.

1.4 Filing of Notice

- .1 File Notice of Work with Federal and Territorial AHJ prior to commencement of Work.

1.5 Regulatory Requirements

- .1 Comply with specified standards, regulations and orders of AHJ to ensure safe operations at sites containing hazardous or toxic materials and other hazards (such as wildlife encounters, falls, etc.).
- .2 All equipment brought to the site must meet the Government of Nunavut *Occupational Health & Safety Regulations*.

1.6 Responsibility

- .1 Be responsible for safety of persons and property on site and for protection of public off site and environment to extent that they may be affected by the site and conduct of Work.
- .2 Control access to the site. Persons with business at the site and who are not Contractor's

employees must be briefed on site specific health and safety issues, and provided with a copy of the site specific health and safety plan.

- .3 Contractor may refuse access to the site to any person not complying with site specific health and safety standards.
- .4 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, territorial, and local statutes, regulations, and ordinances, and with Site-Specific Health and Safety Plan:
 - .1 Conduct appropriate safety training for all personnel working on the site.
 - .2 Conduct Work place safety inspections for all Work activities.
 - .3 Maintain a log of first aid and safety supplies, and notify appropriate personnel for restocking after each incident, and periodical restocking to replace out dated or consumable (headache medicines, bandages) products.

1.7 Hazard Communication Requirements

- .1 Comply with Work Site Hazardous Materials Information System of the AHJ.
- .2 Provide Departmental Representative with Material Safety Data Sheets (MSDS) and documentation on any "hazardous" chemical that Contractor or Contractor Representatives plan to bring onto site; bound in one place and stored in accordance with the Site Specific Health and Safety Plan.

1.8 Unforeseen Hazards

- .1 Should any unforeseen or peculiar safety related factor, hazard, or condition become evident, stop Work, assess, take steps to mitigate if necessary at that time and immediately advise Departmental Representative verbally and in writing.
- .2 Monitor potential low oxygen and Lower Explosive Limits areas with oxygen/LEL monitor when working in tanks. These areas include but are not limited to the above ground tanks, trenches, excavations and areas near machinery exhaust.
- .3 Undertake air monitoring as required for entry into confined spaces.

1.9 Safety and Hygiene

- .1 Provide training for all persons entering the site in accordance with specified personnel training requirements, maintain log of who was trained, what training was provided and by whom the training was conducted.
- .2 Personal Protective Equipment (PPE):
 - .1 Furnish site personnel with appropriate suitable safety clothing and equipment as required by legislation.
 - .2 Verify that safety equipment and protective clothing is kept clean and well maintained.
 - .3 Ensure all clothing and personal protective equipment used on site, must remain on site, to be either decontaminated or disposed of. No Work clothing is to leave Work site without having been properly decontaminated. This includes, but is not limited to working coveralls.
 - .4 Outline and designate suitable safety clothing (PPE) for each site and Work activity in accordance with AHJ.

- .3 Develop written PPE care and use procedures to be included in the Site Specific Health and Safety Plan and verify that procedures are strictly followed by site personnel including, but not limited to, the following:
 - .1 Provisions for prescription eyeglasses with side shields worn as safety glasses and do not permit contact lenses on site within Work zones.
 - .2 Provisions, for footwear, are steel toed safety shoes or boots and are covered by rubber overshoes when entering or working in potentially contaminated Work areas.
 - .3 Dispose of or decontaminate PPE worn on site at end of each workday.
 - .4 Decontaminate reusable PPE before reissuing.
 - .5 Provisions for decontamination arising from entry or exit into contaminated areas.
- .4 Develop a written Respiratory Protection program to be included in the Site Specific Health and Safety Plan and ensure that the program is strictly followed by site personnel; include the following procedures as minimum:
 - .1 Provide site personnel with extensive training in usage and limitations of, and qualitative fit testing for, air purifying and supplied air respirators in accordance with specified regulations.
 - .2 Monitor, evaluate, and provide respiratory protection for site personnel.
 - .3 Verify that levels of protection as listed have been chosen to be consistent with site specific potential airborne hazards associated with major contaminants identified on site.
 - .4 Immediately notify Departmental Representative when level of respiratory protection required increases.
 - .5 Verify that appropriate respiratory protection during Work activities is available and readily accessible; all personnel entering potentially contaminated Work areas will be supplied with and use appropriate respiratory protection.
 - .6 Assess ability for site personnel to wear respiratory protection.
 - .7 Verify that site personnel have passed respirator fit test prior to entering potentially contaminated Work areas.
 - .8 Verify that facial hair does not interfere with proper respirator fit.
 - .9 Submit proof of fit testing for site personnel to Departmental Representative. Update submission when new personnel are added to the Work or when new Work activities occur.
- .5 Heat Stress/Cold Stress: Implement heat stress and cold stress monitoring program as applicable and include in the Site Specific Health and Safety Plan.
- .6 Personnel Hygiene and Personnel Decontamination Procedures: provide minimum as follows:
 - .1 Suitable containers for storage and disposal of used disposable PPE.
 - .2 Potable water and suitable sanitation facility.
 - .3 Access to shower facilities.
 - .4 Provisions for proper disposal of contaminated PPE.

1.10

Site Communications

- .1 Post emergency numbers near site telephones/radios.
- .2 Train personnel in the use of "buddy" system.
- .3 Provide alarm system to notify employees of site emergency situations or to stop Work activities if necessary and identify emergency stations.

1.11 Safety Meeting

- .1 Conduct daily task specific safety meetings as per Project requirements and as directed by Departmental Representative.
- .2 Conduct safety meetings with workers engaged in outdoor Work under summer or winter conditions. Topics must include hot and cold stress, exhaustion, buddy systems, and any other items inherent in working outdoors.
- .3 Conduct mandatory daily safety meetings (toolbox) for personnel, and additionally as required by special or Work related conditions; include refresher training for existing equipment and protocols, review ongoing safety issues and protocols, and examine new site conditions as encountered. Hold additional safety meetings on an as needed basis or as specified by the AHJ. Keep records of meetings on file.

1.12 Fuel Management

- .1 All vehicle and equipment refuelling must be conducted by appropriately trained personnel using the effective personal protective equipment in a manner which meets or exceeds regulatory requirements including using drip pans, double walled tanks and secondary containment for tanks, filler nozzles and valves, as required.
- .2 Records of fuel usage by activity must be maintained.
- .3 All fuel transports including mobile refuelling trucks and fuel transport to stationary equipment such as generators or pumps or distributed storage areas, must occur in approved (CSA) containers with the notification and consent of site safety personnel.

1.13 Vehicle and Equipment Usage

- .1 Seatbelts must be worn at all times vehicle or equipment is in operation.
- .2 Speed limits must be set and obeyed.
- .3 If site access is unsafe or marginally unsafe, maintain to acceptable standards. Do not risk property damage or injury.
- .4 Vehicles are to not be idled for longer than 10 minutes (warm up) unless explicitly used as a place of refuge during animal encounters or for personnel working outdoors during winter operations. Exceptions are to be made in consultation with Departmental Representative.
- .5 Perform vehicle maintenance and lubrication of equipment in a manner that avoids spillage of fuels, oils, grease and coolants. When refuelling equipment, use leak free containers and reinforced rip and puncture proof hoses and nozzles. Remain in attendance for duration of refuelling operation, and ensure that all storage container outlets are properly sealed after use.
- .6 Place drip pans under stationary equipment with potential leaks.
- .7 All mobile equipment brought to the site must have rotating beacons and vehicles should have beacons and buggy whips.

- .8 Dispose of used oil, grease and coolants from Contractor's vehicles maintenance activities as hazardous waste as set out in Section 02 61 33- Hazardous Waste Material. Include costs for disposal in this Section.
- .9 Helmets must be worn during the use of ATVs.

1.14

Flammable Liquids

- .1 The handling, storage and use of flammable liquids will be governed by the current National Fire Code of Canada.
- .2 Flammable liquids such as gasoline, kerosene and naphtha may be kept for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing the Underwriter's Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable liquids exceeding 45 litres for Work purposes, requires the permission of the permitting authority.
- .3 Do not transfer flammable liquids in the vicinity of open flames or any type of heat-producing devices.
- .4 Do not use flammable liquids having a flash point below 38°C such as naphtha or gasoline as solvents or cleaning agents.
- .5 Store flammable waste liquids, for disposal, in approved containers located in a safe ventilated area. Quantities are to be kept to a minimum and Departmental Representative is to be notified when disposal is required.
- .6 Dispose of all flammable liquids in accordance with all applicable environmental regulations and with the requirements of Section 02 61 33 - Hazardous Waste Material.

1.15

Storage and Handling of Fuel

- .1 Locate fuel storage areas as approved by Departmental Representative.
- .2 Inspect fuel storage and dispensing facilities daily. Make available fire fighting and spill response equipment for immediate access at each fuel storage location.
- .3 Store all drums containing fuel and /or hazardous materials in an elevated position, either on their side with bungs facing 9 and 3 o'clock position, or on pallets, upright, and banded.
- .4 All drums to be individually identified. Label will be to industry standards and will provide all information necessary for health and safety and environmental purposes. Make available, to all personnel, Material Safety Data Sheets for all materials maintained at site or along right-of-ways.
- .5 All drums/fuel containers to be labelled with Contractor's name.
- .6 Treat all waste petroleum products, including used oil filters as hazardous materials.
- .7 Conduct regular inspections of all machinery hydraulic, fuel and cooling systems. Repair leaks immediately.

- .8 Pre-assemble and maintain emergency spill equipment, including absorbent material. Maintain spill mats or pan under mobile fuelling containers and a spill kit at the refuelling area.
- .9 Remove all full and empty drums, fuel storage facilities and associated materials and equipment from site at conclusion of Work.

1.16

Spill Contingency Plan

- .1 Submit to Departmental Representative for approval, detailed Spill Contingency Plan. Identify response capabilities by detailing response times, and types and volumes of spills to which Contractor can respond. Following information is required as a minimum:
 - .1 A description of pre-emergency planning.
 - .2 Personnel roles, lines of authority and communication, emergency phone numbers.
 - .3 Emergency alerting and response procedures.
 - .4 Evacuation routes and procedures, safe distances and places of refuge.
 - .5 Directions/methods of getting to nearest medical facility.
 - .6 Emergency decontamination procedures.
 - .7 Emergency medical treatment and First-Aid.
 - .8 Emergency equipment and materials.
 - .9 Emergency protective equipment.
 - .10 Procedures for reporting incidents.
 - .11 Spill and disposal response and containment plans for all materials that could potentially be spilled including a spill response.

1.17

Medical

- .1 Provide and maintain first aid and medical care and facilities for all workers as required by the Statutes of the Government of Nunavut *Occupational Health & Safety Regulations*.
- .2 Provide the appropriate first aid kit, based on the number of workers, in accordance with the Government of Nunavut *Occupational Health & Safety Regulations*.
- .3 Establish an emergency response plan acceptable to Departmental Representative, for the removal of any injured person to medical facilities or a doctor's care in accordance with applicable legislative and regulatory requirements.
- .4 Provide the appropriate number of first aid attendants on site in accordance with the Government of Nunavut *Occupational Health & Safety Regulations* (minimum of one).
- .5 Emergency and First Aid Equipment:
 - .1 Locate and maintain emergency and first aid equipment in appropriate location on site including first aid kit to accommodate number of site personnel; portable emergency eye wash; fire protection equipment as required by legislation.
 - .2 Provide a minimum of 1 qualified first aid attendant on site at all times when Work activities are in progress; duties of first aid attendant may be shared with other light duty Work related activities.

1.18 Accidents and Accident Reports

- .1 Immediately report, verbally, followed by a written report within 24 hours, to Departmental Representative, all accidents of any sort arising out of or in connection with the performance of the Work, giving full details and statements of witnesses. If death or serious injuries or damages are caused, report the accident promptly to Departmental Representative by telephone or facsimile in addition to any report required under federal and territorial laws and regulations.
- .2 If a claim is made by anyone against Contractor or Sub-Contractor on account of any accident, promptly report the facts in writing to Departmental Representative, giving full details of the claim.

1.19 Security

- .1 Limit site access only to persons employed on the Project. Unauthorized persons will be permitted on site only with the approval of Departmental Representative or Contractor.

1.20 Fire Safety

- .1 Provide all fire prevention, fire protection and fire fighting services at the Project site where all fire prevention and protection equipment is to be certified and inspected by fire prevention service professionals.
- .2 Implement a fire safety program that includes fire prevention, fire protection, fire fighting requirements and an evacuation strategy in the event of a fire. Submit details of the fire safety program in writing to Departmental Representative for review prior to start of construction. Such review does not relieve Contractor from any obligations or responsibilities required by the Contract.
- .3 Ensure that any Sub-Contractors and other Contractor personnel on-site are briefed on fire safety requirements and are familiar with the fire prevention, fire protection and fire fighting program.
- .4 The fire safety program to meet or exceed the most recent editions of the following codes and standards:
 - .1 Government of Nunavut *Occupational Health & Safety Regulations*.
 - .2 National Fire Code of Canada.
 - .3 Canada Labour Code Part II.
- .5 Personnel designated for fire fighting services must be provided with training for any special hazards that may be present. These personnel must also be provided with protective equipment as required by the Canada Labour Code Part II.

1.23 Reporting Fires

- .1 A person discovering a fire and all fire related incidents will report immediately, by fastest available means, to Departmental Representative and site superintendent.
- .2 A person discovering a fire will if possible, remain in the vicinity to direct fire fighting personnel.

1.24 Fire Extinguishers

- .1 Provide and maintain fire extinguishers in sufficient quantity to protect in an emergency.

1.25 Smoking Precautions

- .1 Do not permit smoking inside the building or in any temporary storage areas.
- .2 Smoking is prohibited within 7.5 metres of fuel storage and dispensing facilities.
- .3 Provide and place signs indicating that smoking within 7.5 metres of fuel storage and dispensing facilities is not permitted, and that the vehicle ignition must be turned off while the vehicle is being refuelled. Provide at least one weather-resistant sign at each fuel dispensing location. The signs will have a minimum dimension of 200 mm and letters not less than 25 mm high. In lieu of lettering, signs may have international "No Smoking - Ignition Off" symbols not less than 100 mm in diameter. Install signs in a location visible to all drivers approaching the dispensing location, and at the dispensing unit.

1.26 Rubbish and Waste Materials

- .1 Rubbish and waste materials are to be kept to a minimum.
- .2 Storage:
 - .1 Extreme care is required where it is necessary to store oily waste in Work areas to ensure maximum possible cleanliness and safety.
 - .2 Greasy or oily rags or materials subject to spontaneous combustion will be disposed of as hazardous material in accordance with Section 02 61 33 - Hazardous Waste Material.

1.27 Hazardous Substances

- .1 If the Work entails the use of any toxic or hazardous materials or otherwise creates a hazard to life, safety or health, Work will be in accordance with the National Fire Code of Canada, Occupational Health and Safety Legislation, and WHMIS.
- .2 Departmental Representative is to be advised, and a "Hot Work" permit issued by Contractor's designated representative in all cases involving welding, burning or the use of blow torches and salamanders, in buildings or facilities. Special precautions are necessary to safeguard life and property from damage by fire or explosives.
- .3 Wherever Work is being carried out in dangerous or hazardous areas involving the use of heat, fire watchers, equipped with sufficient fire extinguishers, will be provided. The determination of dangerous or hazardous areas along with the level of precaution necessary for Fire Watch will be at the discretion of Contractor. Notify Departmental Representative prior to that determination.
- .4 Provide proper ventilation and eliminate all sources of ignition where flammable liquids, such as lacquers or urethanes are used.

1.28 Questions and Clarifications

- .1 Direct any questions or clarification to Departmental Representative.

1.29 Unique Hazards

- .1 No unique hazards identified on site however in the event unforeseen situations arise they are to be managed in accordance with the protocols outlined in this Section.

1.30 Measurement of Payment

- .1 All costs for the preparation and completion of the Site Specific Health and Safety Plan, are to be included in the lump sum price paid for under Item 01 35 32-1, as indicated in Basis of Pricing Schedule. The lump sum price for the Site Specific Health and Safety Plan will be paid after a satisfactory Site Specific Health and Safety Plan has been submitted to Departmental Representative.
- .2 Except as otherwise indicated herein, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

PART 3 EXECUTION

3.1 Not Used

END OF SECTION

PART 1 GENERAL

1.1 Definitions

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants

1.2 Regulatory Overview

- .1 Comply with all applicable environmental laws, regulations and requirements of Federal, Territorial and other regional authorities, and acquire and comply with such permits, approvals and authorizations as may be required.
- .2 Comply with and be subject to those permits and approvals obtained from Departmental Representative to conduct the Work.
- .3 Pay specific attention to the *Migratory Birds Convention Act*, as amended in 1994.

1.3 Submittals

- .1 Submit all required Contractor submittals to satisfy environmental requirements directly to the responsible agency and AHJ.
- .2 Submit one complete copy of all submittals and agency approvals to Departmental Representative.
- .3 All submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.4 Relics and Antiquities

- .1 Relics and antiquities and items of historical or scientific interest found on-site will remain the property of the appropriate AHJ.
- .2 Give immediate notice to Departmental Representative if evidence of archaeological finds are encountered during construction/remediation activities, and await Departmental Representative's written instructions before proceeding with Work in this area.
- .3 Protect archaeological finds and similar objects found during course of Work.

1.5 Site Maintenance

- .1 Keep the site free from the accumulation of waste materials and debris as specified in this section.
- .2 Upon completion of the Work, clean away and dispose of all surplus material, supplies, rubbish and temporary works leaving the site neat and tidy to the requirements of

Departmental Representative.

1.6 Fires

- .1 Fires and burning of rubbish on site are not permitted.

1.7 Disposal of Wastes

- .1 Do not bury rubbish and waste materials on site.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways.

1.8 Water Management

- .1 Provide potable water for drinking.

1.9 Drainage

- .1 Provide temporary drainage and pumping as necessary to keep site free from water.
- .2 Do not pump water containing suspended materials into waterways.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.
- .4 Provide erosion and sediment control plan that identifies type and location of erosion and sediment controls to be provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, and Territorial laws and regulations.

1.10 Site Clearing and Plant Protection

- .1 Minimize stripping of topsoil and vegetation.

1.13 Work Adjacent to Waterways

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Design and construct temporary crossings to minimize erosion to waterways.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid spawning beds when constructing temporary crossings of waterways.

1.14 Pollution Control

- .1 Maintain temporary erosion and pollution control features installed under this contract.

- .2 Control emissions from equipment and plant so as to comply with the local authorities emission requirements.
- .3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary access routes.

1.15 Environment Protection Supplies

- .1 Comply with federal and territorial fisheries and environmental protection legislation, including preventing the loss or destruction of fish habitat, and minimizing the impact of sedimentation, siltation or otherwise causing a degradation in water quality.
- .2 Silt Fence
 - .1 Provide as required polypropylene silt fence (typical height of 0.9 m) and the necessary stakes for installation. This will be used as necessary to prevent sediment transport into water bodies
- .3 Sorbent Boom
 - .1 Provide a minimum of 10 lineal metres, or more as required, of 200 mm diameter hydrophobic, sorbent booms. This will be used as necessary to prevent the potential migration of hydrocarbons.
- .4 Supply, transport, install and maintain erosion, sediment and drainage controls necessary to complete the Work in accordance with the requirements of Departmental Representative.
- .5 At the completion of construction, dispose of used silt fence off-site as non-Hazardous Waste. Dispose of used absorbent boom in accordance with Section 02 61 33 - Hazardous Waste Material.
- .7 Unused Erosion, Sediment and Drainage Control supplies will remain the property of Departmental Representative until the end of the contract.

1.16 Historical Archaeological Control

- .1 Plan: include methods to assure protection of discovered resources and identify lines of communication between Contractor personnel and Departmental Representative.

1.17 Notification

- .1 Departmental Representative will notify Contractor in writing of observed non-compliance with Federal, Territorial, Provincial or Municipal environmental laws or regulations, permits, etc.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of Work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

1.18 Measurement of Payment

- .1 Include all direct costs for the supply and transport of the specified Environmental Protection Supplies in the lump sum price for Environmental Protection Supplies, Item 01 35 43-1, as indicated in the Basis of Pricing Schedule.
- .2 Except as otherwise indicated herein, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Temporary Erosion Sedimentation Control

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff to adjacent properties, according to requirements of AHJ.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during Work.
- .3 Implement silt curtains and other erosion control methods as directed by Departmental Representative.

END OF SECTION

PART 1 GENERAL

1.1 References and Codes

- .1 Perform Work in accordance with National Building Code of Canada (NBC) including all amendments and other codes of provincial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.
- .3 Perform Work in accordance with the Specifications and meet or exceed all codes, standards and regulations applicable to the Work and issued under the authority of the Government of Canada and the Government of Nunavut. Advise Departmental Representative of any discrepancies in the codes, standards and regulations applicable to the Work.

1.2 References and Codes - Federal

- .1 Meet or exceed the most recent amendments or revisions to the governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of Canada including, but not limited to:
 - .1 Canada Labour Code Part II-Occupational Health and Safety (R.S.1985,c.L-2).
 - .2 Canada Occupational Health and Safety Regulations (SOR/86-304).
 - .3 Canadian Environmental Protection Act, (S.C. 1999, c.33)
 - 1. Storage Tanks Systems for Petroleum and Allied Petroleum Products Regulations, SOR/2008-197, under the Canadian Environmental Protection Act.
 - .4 Canadian Council of Ministers of the Environment (CCME) – Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, 2003.
 - .5 Controlled Products Regulations (SOR/88-66)
 - .6 Interprovincial Movement of Hazardous Waste Regulations (SOR/2002-301).
 - .7 Federal Halocarbon Regulations, 2003.
 - .8 National Construction, Renovation and Demolition Non-hazardous Solid Waste Management Protocol, PWGSC 2002
 - .9 National Fire Code of Canada, 2005
 - .10 National Building Code of Canada, 2005
 - .11 Ozone Depleting Substances Regulations, 1998 (SOR/99-7).
 - .12 Transportation of Dangerous Goods Act, 1992 (S.C. 1992, c.34)
 - .13 Transportation of Dangerous Goods Regulations (SOR/2001-286)
 - .14 Territorial Land Use Regulations (C.R.C., c.1524)
 - .15 Fisheries Act (R.S., 1985, c. F-14)
 - .16 Health Canada Guidelines for Canadian Drinking Water Quality, May 2008
 - .17 Arctic Waters Pollution and Prevention Act (A.S. 1985 CA-12).
 - .18 Nunavut Waters and Nunavut Surface Rights Tribunal Act (SOR/2002-253)

1.3 References and Codes - Nunavut

- .1 Meet or exceed the most recent amendments or revisions to the governing codes, standards and guidelines, and regulations applicable to Work and issued under the authority of the Government of Nunavut including, but not limited to:
 - .1 Environmental Protection Act (Nunavut) (R.S.N.W.T. 1988, c. E-7)
 - .2 Labour Standards Act (Nunavut) S.N.W.T. 2003,c.15
 - .3 Public Health Act, R.S.N.W.T. 1988, c.P-12.
 - .4 Spill Contingency Planning and Reporting Regulations NU R-068-93.
 - .5 Fire Prevention Act, R.S.N.W.T. 1988, c.F-6.
 - .6 Transportation of Dangerous Goods Act, S.N.W.T. 1990, c.36 2008,c.8
 - .7 Transportation of Dangerous Goods Regulations, N.W.T. Reg. 049-2002
 - .8 Used Oil and Waste Fuel Management Regulations, N.W.T. R-064-2003
 - .9 Work Site Hazardous Materials Information System Regulations, R.R.N.W.T. 1990, c.S-2.

1.4 Standard and Guidelines

Standards, Guidelines and Policies

- .1 Meet or exceed the most recent amendments or revisions to the governing standards, guidelines, and policies applicable to the Work, including, but not limited to:
 - .1 Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, (PN 1326), 2003 CCME.
 - .2 Guidelines for Canadian Drinking Water Quality, April 2004, Canadian Council of Ministers of the Environment.
 - .3 Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments, April 1976, Environmental Conservation Directorate.
 - .4 Environmental Guideline for Waste Batteries, January 2002, Government of the Nunavut.
 - .5 Guideline for the Management of Waste Lead and Lead Paint, Nunavut, 2011.
 - .6 Environmental Guideline for Waste Solvents, January 2002, Government of the Nunavut.
 - .7 Environmental Guideline for Site Remediation, January 2002, Government of the Nunavut.
 - .8 Environmental Guideline for Air Quality – Sulphur Dioxide and Suspended Particulates, January 2002 – Government of the Nunavut.

- .9 Environmental Guideline for Dust Suppression, January 2002, Government of the Nunavut.
- .10 Environmental Guideline for the General Management of Hazardous Waste, January 2002, Government of Nunavut.
- .11 Environmental Guideline for Ozone Depleting Substances, January 2002, Government of the Nunavut.

1.5 Permits and Licenses

- .1 Any deviations from the current demolition plan may require Permit amendments or field authorizations. Notify Departmental Representative of any proposed deviations.
- .2 Respond to all regulatory inquiries in order to get permits and licenses and provide Departmental Representative with a copy of each response

1.6 Hazardous Material Discovery

- .1 Asbestos: Collection of spray or trowel-applied asbestos or asbestos containing insulation is hazardous to health. Should material resembling spray or trowel-applied or insulation material with asbestos be encountered in course of demolition Work, immediately stop Work and notify Departmental Representative. Refer to Section 02 82 11 - Asbestos Abatement (Intermediate Precautions) for vinyl sheet flooring and similar applications
- .2 Stop Work immediately and notify Departmental Representative upon discovery of following materials during course of Work:
 - .1 Designated substances such as PCBs, asbestos, halocarbons, and mercury.
- .3 Work at site will involve contact with:
 - .1 PHC (total petroleum hydrocarbons) impacted soils.
 - .2 Hazardous liquids in storage tank and pipes.
 - .3 Surfaces with visible mould growth
 - .4 Asbestos containing materials.

1.7 WHMIS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada, HRSDC and Health Canada.
- .2 Deliver copies of WHMIS data sheets to Departmental Representative on delivery of materials.

1.8 Submittals

- .1 All submittals in accordance with Section 01 33 00 - Submittal Procedures

1.9 Measurement of Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Inspection

- .1 Allow Departmental Representative access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative instructions, or law of Place of Work.
- .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4 Departmental Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such Work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, Departmental Representative will pay cost of examination and replacement.

1.2 Submittals

- .1 All submittals in accordance with Section 01 33 00 - Submittal Procedures

1.3 Independent Inspection Agencies

- .1 Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Departmental Representative.
- .2 Provide access for executing inspection and testing by appointed agencies.
- .3 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .4 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and re-inspection.

1.4 Access to Work

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and storage areas.
- .2 Co-operate to provide reasonable facilities for such access.

1.5 Procedures

- .1 Notify appropriate agency and Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.

- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.6 Rejected Work

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 If in opinion of Departmental Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Departmental Representative may deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Departmental Representative.

1.7 Reports

- .1 Departmental Representative will distribute copies of reports.
- .2 Provide copies to Sub-Contractor of Work being inspected or tested and manufacturer or fabricator of material being inspected or tested.

1.9 Measurement of Payment

- .1 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Mobilization and Demobilization

- .1 Provide all labour, equipment and materials, and performance of all Work necessary for mobilization to, and demobilization from site.
- .2 Mobilization to include transportation to site of Contractor's labour, equipment, materials, and assembling, erecting, and preparing site in readiness to start Work, all in accordance with Contractor's Schedule.
- .3 Demobilization to include dismantling and removal from site, of all Contractor's equipment and materials, and transportation of labour from site.
- .4 Decontaminate and clean all equipment used on the Project prior to demobilization.
- .5 Do not mobilize to the site without written authorization from the Departmental Representative.
- .7 All mobilization and demobilization methods to comply with the requirements of all applicable codes, standards, guidelines and AHJ.
- .8 All personnel supervising or operating equipment will be properly certified.
- .9 A Final Walk Over will be required prior to Demobilization as per Section 01 77 00 – Closeout Procedures.

1.2 Submittals

- .1 All submittals in accordance with 01 33 00 – Submittal Procedures

1.3 Measurement of Payment

- .1 All costs for mobilization of all equipment and materials, are to be include in the lump sum price for mobilization, Item 01 53 00-1, as indicated in the Basis of Pricing Schedule. The lump sum price for mobilization is to include all labour, equipment, materials, meals, accommodation, flight and any other costs necessary to undertake Wok required.
- .2 All costs for demobilization of all equipment and materials are to be included in the lump sum price for Demobilization , Item 01 53 00-2 as indicated in the Basis of Pricing Schedule. The lump sum for Demobilization is to include all labour, equipment, materials, meals, accommodation, flights and any other costs necessary to undertake the work required. Payment for Demobilization will be made after satisfactory cleanup of the site, removal from the site of all equipment, materials, site debris materials and submission to Departmental representative of all Contractor submittals as per Section 01 78 00 - Closeout Submittals
- .3 Except as otherwise indicated herein, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

.1 Not used.

PART 3 EXECUTION

3.1 Not Used

.1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Closeout Procedures

- .1 Notify Departmental Representative when Work is considered ready for substantial performance.
- .2 Accompany Departmental Representative on preliminary inspection to determine items listed for completion or correction.
- .3 Comply with Departmental Representative's instructions for correction of items of Work listed in executed Certificate of Substantial Completion.
- .4 Notify Departmental Representative of instructions for completion of items of Work determined in Departmental Representative's final inspection.

1.2 Inspection and Declaration

- .1 Contractor's Inspection: Conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
 - .2 Request Departmental Representative's Inspection.
- .2 Departmental Representative's Inspection: Departmental Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor to correct Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Work is complete and ready for Final Inspection.
- .4 Final Inspection (Final Walk Over): when items noted above are completed, request final inspection of Work by Departmental Representative and Contractor. If Work is deemed incomplete by Departmental Representative, complete outstanding items and request re-inspection.

1.3 Measurement of Payment

- .1 Except as indicated above, Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. .

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART 1 GENERAL

1.1 Format

- .1 Organize data in the form of an instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3 Cover: Identify each binder with type or printed title 'Project Record Documents'; list title of Project and identify subject matter of contents.
- .4 Arrange content by site feature under Section numbers and sequence of Table of Contents.
- .5 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .6 Text: Manufacturer's printed data, or typewritten data.
- .7 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

1.2 Contents – Each Volume

- .1 Table of Contents: provide title of Project;
 - .1 date of submission; names,
 - .2 addresses, and telephone numbers of Contractor with name of responsible parties
 - .3 Schedule of work including off-site transport of waste
 - .4 Summary of Health and Safety issues, Environmental issues and performance indicators.
 - .5 Bills of Lading and waste acceptance certificates
 - .6 Submittals
 - .7 Photographs
- .2 For each aspect of the work:
 - .1 list names, addresses and telephone numbers of Sub-Contractors and suppliers, including local source of supplies and replacement parts.
- .3 Drawings: supplement the summary of work with drawings to illustrate relations of component parts of equipment and systems.
- .4 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified.

1.3 Photograph Requirements

- .1 Submit photographs as per Section 01 33 00 – Site Photographs.

1.4 Documents

- .1 In addition to requirements in General Conditions, maintain at the site for Departmental

Representative one record copy of:

- .1 Contract Drawings.
- .2 Specifications.
- .3 Addenda.
- .4 Task Authorizations
- .5 Change Orders and other modifications to the Contract.
- .6 Field test records.
- .8 Inspection certificates.
- .9 Manufacturer's certificates.

- .2 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .3 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .4 Keep record documents and samples available for inspection by Departmental Representative.

1.5 Recording Actual Site Conditions

- .1 Record information on set of black line opaque drawings, and in copy of Project Manual, provided by Departmental Representative.
- .2 Provide felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 Contract Drawings: legibly mark each item to record actual construction, including:
 - .1 Field changes of dimension and detail.
 - .2 Changes made by change orders.
 - .3 Details not on original Contract Drawings.
- .5 References to related shop drawings and modifications.
 - .1 Field changes of dimension and detail.
 - .2 Changes made by Task Authorization, Change Order or Field Order.
- .6 Specifications: legibly mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Task Authorization, Addenda and change orders.
- .7 Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.

1.6 Record Drawings

- .1 Departmental Representative will provide to Contractor, one sets of white prints for record drawing purposes.
- .2 Maintain Project record drawings and record accurately deviations from Contract

documents on one set of prints.

.3 Record changes in red.

.4 At completion of Project and prior to final inspection, neatly transfer record notations to second set of drawings and submit both sets to Departmental Representative. Forward information on completed areas at the end of the construction season.

1.7 Other Records

- .1 Prior to completion of Project, submit the following to the Departmental Representative:
 - .1 Copies of all documents and permits obtained by the Contractor.
 - .2 Results of all testing carried out by the Contractor.
 - .3 Any other pertinent information.
 - .4 Copies of all shipping documents identifying the shipper, the receiver and all carriers involved in the transport of materials.
 - .5 Information as required by the AHJ.
 - .6 Information as required by other applicable permits.
- .2 Consolidate the above information in one document and submit five copies to the Departmental Representative.

1.8 Measurement of Payment

- .1 All direct costs for the completion of the project record documents, including site photographs, are to be included in a lump sum price bid under Item 01 78 00-1, Closeout Submittals as indicated in the Basis of Pricing Schedule.
- .2 Work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. .

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Not Used

- .1 Not used.

END OF SECTION

PART I GENERAL

1.1 Description

- .1 This section specifies the requirements for the demolition, decommissioning, and dismantling of Building 1082 as indicated on the Drawings and Specifications.
- .2 Containerization, haulage, temporary storage and disposal of demolition debris is covered under Section 02 41 23.
- .3 Prepare and complete work in accordance with the Demolition Plan upon review by the Departmental Representative.

1.2 Definitions

- .1 Asbestos Containing Material: Material as defined in Section 02 82 11 – Asbestos Abatement Intermediate Precautions.
- .2 Leachable-Lead Painted Material: Material that is coated with lead based paint that has been analyzed and determined to contain leachable lead concentrations in excess of 5 mg/L (as specified in Transportation of Dangerous Goods Act regulations for Toxicity Characteristic Leaching Procedure test - leachable lead).
- .3 Lead-Painted Material: Material that is coated with lead based paint that has been analyzed and determined to contain total lead concentrations in excess of 600 ppm, but less than 5 mg/L of leachable lead.
- .4 Non-Hazardous Waste Material: Material which is non-hazardous as defined in Section 02 61 33 - Hazardous Waste Material.

1.3 Reference Standards

- .1 Canadian Council of Ministers of the Environment (CCME) Guidelines.
- .2 CSA S350-M1980, Code of Practice for Safety in Demolition of Structures.
- .3 National Building Code of Canada, Current Edition.
- .4 Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: NIOSH Publication No. 85-115.
- .5 Hazardous Waste Worker Training Manual: Canadian LIUNA Contractors Training Council, 1992.
- .6 Conduct all work in accordance with all appropriate Federal and Territorial legislation, and international conventions including, but not limited to:
 - .1 Canadian Federal Legislation
 - .1 *Canadian Environmental Protection Act.*
 - .2 Canadian Labour Code (Part II)
 - .3 Transportation of Dangerous Goods Act and Regulations
 - .2 Territorial Legislation
 - .1 *Nunavut Safety Act, R.S.N.W.T.*
 - .2 *Nunavut General Safety Regulations, R.R.N.W.T.*
 - .3 *Guidelines for the Management of Waste Lead and Lead Paint, NU*

- .4 Transportation of Dangerous Goods Act, S.N.W.T
- .5 Transportation of Dangerous Goods Regulations, R.N.W.T
- .6 Asbestos Safety Regulation

1.4 Environmental Protection

- .1 Ensure Work is done in accordance with Section 01 35 43 - Environmental Protection, and the AHJ.

1.5 Work Description

- .1 Demolition, removal, and disposal of the structure (Building 1082) as indicated in the Appendices and Drawings, and in accordance with the Demolition Plan, including the following:
 - .1 Demolishing and sorting all non-hazardous waste building components comprising the structure and beneath the structure
 - .2 Dismantle and remove the above ground storage tank in accordance with Federal regulations and AHJ.
 - .2 Remove and dispose of asbestos material in accordance with Specification Section 02 82 11.
 - .3 Remove, Containerize and Dispose of hazardous waste material in accordance with Section 02 61 33 - Hazardous Waste Material.
 - .4 Restore, grade and reshape all areas affected by demolition work in accordance with Section 31 22 15 - Grading.
 - .5 Separate Heritage Items as identified as directed by the Departmental Representative.

1.6 Existing Conditions

- .1 The information presented that describes the structure to be demolished is based upon site conditions described in the reference documents. A summary of the estimated quantities of waste is provided in Appendix B.
- .2 The information presented in the reference documents, including inventory tables and drawings, provide brief descriptions of locations of materials. These tables and drawings indicate only the major work elements, and are not to be construed as exact for final demolition requirements. Contractor is responsible for all work described in this Section, which includes the complete demolition of all facilities and structures designated for demolition.
- .4 The information presented in the reference documents and summarized in Appendix B indicates types and quantities of hazardous waste materials that have been previously identified, and must be removed and disposed of. Should other potentially hazardous waste material, other than that already identified, be encountered in the course of demolition work, stop work immediately, and notify the Departmental Representative. Do not proceed until written instructions have been received from Departmental Representative.
- .5 The Site Photographs in Appendix A are for illustration purposes only and show the condition of the facilities and structures during various field investigations and site visits in Summer 2013. These photographs are intended to provide information on the general condition of the buildings and structures to be demolished. Photographs are not intended

to depict the total scope of work.

1.7 Demolition Drawing

- .1 Where required by authorities having jurisdiction, submit for approval drawings, diagrams or details showing sequence of disassembly work or supporting structures and underpinning. Submissions to bear stamp of qualified professional Engineer registered in Nunavut.
- .2 Do not commence demolition work until the Contractor has demonstrated to the Departmental Representative that all required permits to be acquired by the Contractor for the work have been obtained.

1.8 Protection

- .1 Install as required sediment controls and/or silt curtains in accordance with Section 01 35 43 - Environmental Protection where working adjacent to water or as directed by Departmental Representative or AHJ.
- .2 Take precautions to support structures and if safety of item being demolished or adjacent structures or services appear to be endangered, cease operations and notify the Departmental Representative.
- .3 Prevent damage and minimize stripping of natural terrain, features and vegetation. Make good all damage.
- .4 Ensure safe passage of persons around area of demolition.
- .5 Do not proceed with demolition work when weather conditions constitute a hazard to the workers and site. Prevailing weather conditions and weather forecast are to be considered.

1.9 Fires

- .1 Fires are not permitted at the Site.
- .2 Provide fire response measures in accordance with Section 01 35 32 - Site Specific Health and Safety Plan.

1.10 Measurement of Payment

- .1 Include all direct costs for the following work items in the lump sum prices for Demolition, Items 02 41 16-1 as indicated in the Basis of Pricing Schedule:
 - .1 Demolition and dismantling of Building 1082.
 - .2 Sorting of non-hazardous waste for disposal.
 - .3 All costs for demolition, including the Demolition Plan, are to be included in the lump sum price for demolition, Item 02 41 16 – 1 as indicated in the Basis of Pricing Schedule. The lump sum price is to include all labour, equipment, materials, and any other costs necessary to undertake the Work. Debris removal from site will be as per Section 02 41 23.

- .2 Except as indicated above, work described in this Section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule.

PART 2 PRODUCTS

2.1 Not Used

- .1 Not used.

PART 3 EXECUTION

3.1 Work

- .1 Demolish existing structure as indicated and dispose of demolition debris as specified in this section and in Section 02 41 23 – Debris Removal, Section 02 61 33 – Hazardous Waste Removal, Section 02 82 11 – Asbestos Abatement, and Section 31 22 15 - Grading.

3.2 Safety and Personnel Protection

- .1 Unless otherwise specified, carry out demolition work in accordance with Section 01 11 00 - Summary of Work and Section 01 35 32 - Site Specific Health and Safety Plan.

3.3 Preparation

- .1 Inspect site and verify prior to demolition with the Departmental Representative the building, structures and utilities designated for demolition.
- .2 Co-ordinate with Qulliq Energy Corporation the disconnection of electricity.
- .3 Co-ordinate with AHJ the disconnection of the services provided by the utilidor.

3.4 Demolition, Decommissioning and Dismantling

- .1 The building and associated structures are to be demolished to the base of the foundation unless otherwise indicated. Any exposed foundations are to be excavated and broken down to have a longest dimension as appropriate for transport to the Contractor off-site Receiving Site.
- .2 Remove all materials indicated and described in Section 02 61 33 - Hazardous Waste Material.
- .3 Cut structural steel and bulk fuel tanks in accordance with referenced standards.
- .4 Cut non-hazardous materials in such shapes and sizes so as to optimize containerization of the material in preparation for off-site disposal at the Contractor's Receiving Site.
- .5 At end of each day's work, leave work in safe condition so that no part is in danger of toppling or falling.
- .6 Demolish in a manner that minimizes dust creation.
- .7 Demolish, remove and lower structural framing and other heavy or large objects in a safe manner.

- .8 The final decommissioned building sub-structure must meet all applicable guidelines outlined by AHJ Safety standards.

3.6 Site Grading and Restoration

- .1 Upon completion of demolition work, remove debris and leave work sites clean to a condition satisfactory to the Departmental Representative.
- .2 Reshape or grade areas excavated to facilitate demolition requirements in accordance with Section 31 22 15 –Grading.
- .3 Do not begin grading of demolition areas until approval to do so is given in writing by the Departmental Representative.

END OF SECTION

PART 1 GENERAL

1.1 Description

- .1 This Section specifies the requirements for the recovery, consolidation, segregation, on-site handling, containerization, off-site transport and disposal of debris as generated from building demolition, located beneath the building, and located inside the building.
- .2 A summary of the known debris volumes is provided in Appendix B and available in the reference documents.
- .3 The work related to the management of hazardous materials will be done in accordance with the specifications under Section 02 61 33 – Hazardous Waste Material.
- .4 The work related to the management of asbestos-containing materials will be done in accordance with the specifications under Section 02 82 11 – Asbestos Abatement – Intermediate Procedures.

1.2 Definitions

- .1 Known Debris: All material which comprises the building, is located beneath the building, and is scattered across the site proper on the existing ground surface consisting of hazardous and non-hazardous material, and that:
 - .1 has been identified to be removed
- .2 Unknown Debris: Scattered debris on the existing ground surface consisting of hazardous and non-hazardous material other than the Known Debris described above.
- .3 Hazardous Waste Materials: Waste materials that are designated as hazardous under Territorial or Federal Legislation or as dangerous goods under the TDGA or CEPA (See Section 02 61 33 - Hazardous Materials).
- .5 Non-Hazardous Waste Materials: Waste materials that are not designated as hazardous under Territorial or Federal Legislation.
- .6 Non-Hazardous Waste Container: Containers suitable for shipping non-hazardous contaminated debris by land.
- .7 Contractor's Receiving Site: Is the location the Contractor has selected for the disposal of the various waste streams that will be generated during the course of the site demolition works. The site must have the appropriate operating license to receive the material to be disposed at the facility. Provide to the Departmental Representative upon award of work documentation confirming the respective waste receiving sites to be used during the course of the remediation program.

1.3 Measurement for Payment

- .1 Include all direct costs for the collection, sorting, containerization and off-site disposal of all known non-hazardous debris from across the entire site to the Contractor's Receiving Site in the lump sum price bid for Item 02 41 23-1, Debris Removal, in the Basis of Pricing Schedule.
- .2 The scope of work for payment Item 02 41 23-1 (Debris Removal) is to include, but is not limited to:

- .1 Collection, segregation, consolidation and sorting of all known non-hazardous debris from the respective areas indicated.
 - .2 Packing, containerization and interim storage of debris for transport off-site to the Iqaluit landfill or the Contractor's Receiving Site.
 - .3 Disposal of packaged and containerized debris at the Contractor's Receiving Site including tipping fees.
 - .4 All costs for the collection and disposal of unknown debris will be considered for payment under Section 02 41 23 - Debris Removal.
- .4 All direct costs for consolidation, crushing, packaging/containerization and disposal of the above ground storage tank to the Contractor's Receiving Site will be measured for payment under Item 02 41 23-1.
- .5 Collection and disposal of residual liquids from within the above ground storage tank and associated piping will be considered under 02 61 33-3.
- .6 The following work items will be incidental to the work described in this Section, and will not be measured separately:
- .1 Cutting, crushing and readying of this material for transport to the Contractor's Receiving Site.
 - .2 On-site management of the debris material pending relocation to the Contractor's Receiving Site.
- .7 Collection, transport and disposal of Unknown Debris identified to contain hazardous materials will be negotiated with Departmental Representative using the Labour and Materials rates provided in the Potential Additional Work section of the Basis of Pricing Schedule.
- .8 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 18- Construction Progress Schedules — Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Materials

- .1 Hazardous Waste Containers for hazardous waste materials in accordance with Section 02 61 33 - Hazardous Waste Materials.

PART 3 EXECUTION

3.1 Protection Procedures

- .1 When working in the vicinity of a drainage course or a body of water, prevent the release of sediment or deleterious materials into the water in accordance with Section 01 35 43 - Environmental Protection.
- .2 Environmental protection measures, are to be in accordance with the requirements specified in Section 01 35 43 - Environmental Protection, and at the direction of the Departmental Representative.

- .3 Remove oil and fuel, if present, from equipment to be disposed of as per Section 02 61 33 - Hazardous Waste Material.
- .4 Maintain supply of overpack drums during debris removal activities to contain leaking hazardous materials.
- .5 Erect sorbent booms around above ground storage tank during work.

3.2

Removal and Sorting

- .1 Examine the material type and nature of the debris.
- .2 Proceed with the collection, consolidation and removal of debris if, based on the visual assessment, the debris is determined to be non-hazardous.
- .3 Immediately suspend the operation if suspected hazardous material or debris is identified and allow visual confirmation of the nature of the material or debris to be established.
- .4 Contractor's Hazardous Materials Specialist to continuously monitor the operation to identify potentially hazardous material.
- .4 Store hazardous materials in a secured area in secured containers as required. Testing for classification of hazardous products will be carried out and paid for by Departmental Representative.
- .6 Completely remove partially buried debris and foundations.
- .7 Advise Departmental Representative of any spills occurring during the demolition works. At the direction of the Departmental Representative, excavate stained and contaminated soil area identified which was a result of the fresh spill. Procedures to follow for potential spills to be described in the Spill Contingency Plan as part of the Site Specific Health and Safety Plan as per Section 01 11 00 – Summary of Work.
- .8 Advise Departmental Representative of any stained soils observed during the demolition works. Stained soils from historic site activities will be dealt with in a separate contract.

END OF SECTION

PART I GENERAL

1.1 Description

- .1 This section specifies the requirements for the collection, containerization, transportation and disposal of hazardous waste except asbestos which is dealt with under Sections 02 82 11 - Asbestos Abatement Intermediate Precautions
- .2 An inventory of known hazardous waste materials is provided in Appendix B and further detailed in the reference documents.

1.2 Definitions

- .1 Hazardous Waste Materials: Wastes materials that are designated as “hazardous” under Territorial or Federal legislation or guidelines; or as “dangerous goods” under the TDGA. The following items are designated as “hazardous” in accordance with the aforementioned legislation:
 - .1 Asbestos (unbagged).
 - .2 Batteries.
 - .3 Solvents.
 - .4 Oils Containing Polychlorinated biphenyls (PCB) in excess of 2 ppm.
 - .5 Petroleum Distillates, including free product that may be recovered during contaminated soil excavation work.
 - .6 Tank Sludge.
 - .7 Soils and paint containing PCBs at concentrations in excess of 50 ppm (mg/kg) and/or leachable lead in excess of 5 ppm (mg/L).
 - .8 Material, including wastewater, groundwater and surface water, identified to be hazardous as the result of testing.
 - .9 Electrical equipment including, but not necessary limited to, capacitors, transformers, and regulators which contain or are suspected to contain PCBs at concentrations in excess of 50 mg/kg.
 - .10 Chemicals
 - .11 Miscellaneous Hazardous Materials defined as those materials not classified as 1 to 9 above but suspected to fall under the definition of Hazardous Wastes and Materials as stated in this Section.
- .2 Known Hazardous Material: material designated as hazardous in accordance with the definition of hazardous waste material in this Section, and which is included in the Waste Inventory in Appendix B. Known Hazardous Materials include:
 - .1 Asbestos-containing materials
 - .2 Ozone-depleting substances
 - .3 Mercury-containing thermostats
 - .4 Smoke detectors
 - .5 Fluorescent lights and ballasts
 - .6 Exterior HID lights
 - .7 Fire extinguishers
- .3 Unknown Hazardous Material: material designated as hazardous in accordance with the definition of hazardous waste material in this Section, and which has not been specifically identified for collection and disposal as part of other work components.
- .4 Known and Unknown Debris: As defined in Section 02 41 23 - Debris Removal.
- .5 Processing: the sampling, testing, packaging, and containerization of hazardous

materials.

- .6 Shipping Container: a container which meets applicable TDGA Requirements for the transport of hazardous material and contains hazardous material.
- .7 Temporary Storage Area: the designated area, approved by Departmental Representative, for the storage of packaging and/or shipping containers prior to transport off-site. Requirements for the Temporary Storage Area are outlined in this Section.
- .8 Drum: for the purposes of these specifications a drum is a 205 L or smaller steel container used to hold fuel or other liquids.
- .9 Free Product: a visible layer of separated phase liquid petroleum hydrocarbon product
- .10 Contractor's Receiving Site for Hazardous Materials: The Licensed Hazardous Waste Disposal Facilities, designated by Contractor and pre-approved by Departmental Representative, for the disposal of all hazardous waste specified under the provisions of this contract. Contractor must be able to provide documentation from the Designated Hazardous Waste Disposal Facilities indicating full responsibility for all hazardous waste accepted from the Site.
- .11 Leachable Lead Painted Material: Material that is coated with lead based paint that has been analyzed and determined to contain leachable lead concentrations in excess of 5 mg/L.
- .12 Calibrated Scale: Scale certified by Measurement Canada for legal trade.

1.3

Qualifications and Personnel Protection

- .1 Follow at all times, guidelines such as those established in Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: NIOSH Publication No.85-115, or Hazardous Waste Worker Training Manual: Canadian LIUNA-Contractors Training Council, 1992.
- .2 All activities involving the handling of hazardous materials are to be directly supervised by Contractor's Hazardous Waste Specialist who has successfully completed a 40 hour training course for Hazardous Waste Activities in compliance with OSHA 29 CFR 1910.120 or other approved equivalent training courses such as the Canadian Hazardous Waste Workers Program.
- .3 Contractor's personnel trained as described in this Section are to instruct and direct all workers with respect to the waste management procedures and labour and safety practices to be followed in carrying out the work.
- .4 Provide workers with protection appropriate to the potential type and level of exposure. Establish specific safety protocols prior to commencing cleanup activities.
- .5 Provide suitable safety clothing and equipment as required during the course of the work. Supply sufficient quantities of protection equipment to fit all site personnel including Departmental Representative, Departmental Representative's staff, and site visitors.

1.4

Measurement for Payment

- .1 The supply and transport to the site of Shipping Containers for the containerization of

hazardous materials including identification labels, signage and materials to be placed within the base of the Shipping Containers to serve as a means for containing materials within the container (drip trays), and all bracing, locks, dunnage and strapping, will be measured for payment by lump sum for all containers required by Contractor for the anticipated Hazardous Waste Materials on-site supplied and transported to the site. Supply of Shipping Containers - Hazardous Waste Materials will be paid under Item 02 61 33-1, as indicated in the Basis of Pricing Schedule.

- .2 The containerization of known hazardous solid materials, will be measured for payment by lump sum for containerization of hazardous solid materials to applicable Federal and/or Territorial requirements for shipment off-site. Containerization of Known Hazardous Materials will be paid under Item 02 61 33-2 as indicated in the Basis of Pricing Schedule.
- .3 The containerization of residual hazardous liquid materials, including residual liquid associated with the above ground storage tank and associated piping will be measured for payment, applicable to Federal and Territorial requirements for shipment off-site. Containerization of Hazardous Liquid Materials will be paid under Item 02 61 33-3 as indicated in the Basis of Pricing Schedule.
- .4 Off-site transport of containerized hazardous solid or liquid waste, consisting of ACM, ozone-depleting substances, mercury containing thermostats, smoke detectors, fluorescent lights, exterior HID lights, fire extinguishers, and residual petroleum products in the AST or associated piping to the Contractor's Receiving Site for each waste stream will be measured by lump sum paid under Item 02 61 33-4, Off-site Transport of Containerized Hazardous Waste to Contractor's Receiving Site in the Basis of Pricing Schedule. Claims will be paid upon proof of acceptance from Contractor's Receiving Site for each waste stream.
- .5 The scope of work for payment Item 02 61 33-4 (Off-site Transport and Disposal of Containerized Hazardous Waste: Hazardous Debris and Hazardous Liquid Waste to Contractor's Receiving Site) is to include, but is not limited to:
 - .1 Preparation and submission to Departmental Representative of waste transport manifests to meet all required relative to the TDG Regulations.
 - .2 Provision of transportation for the containerized hazardous waste to Contractor's Receiving Site.
 - .3 On-site transport of the containerized hazardous waste to the off-site transport staging area and loading onto transport.
 - .4 Transport and Off-loading of the containerized hazardous waste to Contractor's Receiving Site.
 - .5 Provision of Certificates of Destruction or acceptance of responsibility from the Contractor's Receiving Site.
- .6 Include all costs for other elements of work not specifically described herein in the appropriate lump sum cost items described above.
- .7 Contractor is to be responsible for all costs associated with any additional repackaging of container contents resulting from the failure by Contractor to properly pack and secure the container contents.
- .8 Development of the Temporary Storage Area, including signs and barricades, will not be measured for payment. Include all costs for signs and barricades in Item BOPC-1, Balance of Project Costs.

- .9 Be responsible for any soil contamination resulting from the removal, storage, handling and disposal of hazardous materials from the site. In the event of such contamination, Contractor is to submit to Departmental Representative a plan for site remediation in accordance with all Federal, Provincial and Territorial regulations to be enacted immediately upon approval by Departmental Representative. Contractor is to bear all costs for remediation. Departmental Representative will carry out sampling of the storage area.
- .10 Costs for the collection and containerization of unknown hazardous waste material will be negotiated with Departmental Representative using Contractor's Labour and Equipment Rates provided in the Potential Additional Work Schedule. The scope of work for the Collection and Containerization of Unknown Hazardous Waste Material includes, but is not limited to the following:
 - .1 Supply and transport of containers to the site for unknown hazardous waste materials.
 - .2 Equipment and labour for the containerization and on-site transportation of unknown hazardous waste materials to the Temporary Storage Area on site.
 - .3 Collection, sorting, and classification of unknown hazardous waste for disposal requirements.
 - .4 Collection of contaminated surface water, groundwater and/or waste water encountered during contaminated soil excavation or generated during cleanup operations.
 - .5 Off-site Transport and disposal of hazardous waste material to Contractor's Designated Hazardous Waste Disposal Facility.
- .11 Departmental Representative is to carry out as required baseline and post-use soil sampling and analyses of the Temporary Storage Area prior to placement, and upon removal, of the Hazardous Material Containers. Be responsible for any soil contamination resulting from the improper storage and handling of hazardous materials over the duration of site activities. In the event of such contamination, submit to Departmental Representative a plan for site remediation in accordance with all Federal, Provincial and Territorial Regulations to be enacted upon immediately following approval by Departmental Representative. All cleanup costs will be borne by Contractor.
- .12 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 18- Construction Progress Schedules — Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Hazardous Waste Material Containers:

- .1 Hazardous Waste Containers:
 - .1 Containers are to satisfy the requirements of the latest edition of the *Transportation of Dangerous Goods (TDG) Act* and Regulations.
 - .2 Submit details of the containers to Departmental Representative for review prior to commencement of the work. These details are to include written confirmation from Transport Canada that Contractor's proposed containers satisfy TDGA regulatory requirements for marine transport for those materials being transported south by barge.

- .3 Containers are to include all necessary liners to satisfy the TDGA requirements for ground transport via the local road system.
- .2 For packaging and containerization requirements of hazardous waste materials, all requirements of the *TDG Act* and Regulations must be met.
- .3 Contain asbestos in accordance with Sections 02 82 11 - Asbestos Abatement — Intermediate Precautions.
- .4 Provide access for Departmental Representative to inspect all Hazardous Material Packaging.

PART 3 EXECUTION

3.1 General Requirements

- .1 Conduct all work in accordance with all appropriate Municipal, Federal, Provincial and Territorial legislation, and international conventions.
- .2 Individuals shipping and receiving hazardous waste materials are to be licensed under the *TDGA* and Regulations, and appropriate territorial environmental acts and regulations.
- .3 Only trained individuals or individuals working under the direct supervision of trained persons are to handle or transport dangerous goods.
- .4 Where Hazardous Materials are part of demolition items, proceed with demolition in accordance with Section 02 41 16 - Structure Demolition Provide protection and precautions as outlined in this Section.
- .5 Submit Certificates of Disposal to Departmental Representative upon transfer of materials to disposal site. Submit bills of lading to Departmental Representative upon transfer of materials to barge.

3.2 Protection

- .1 Avoid releasing any hazardous materials into the environment during handling of hazardous waste materials.
- .2 In the event of a spill, invoke the emergency response plan and take appropriate action.
- .3 Provide a full range of cleanup and protective equipment at the site to contain and cleanup spills, and protect personnel, as required. The cleanup equipment is to include booms (sorbent and containment), sorbents for cleanup, fire extinguishers for A-B-C fires, overpacks for contaminated soils, pumps, hand shovels, picks and containment barriers, such as plastic sheeting. Personnel protective equipment is to include clothing, protective suits, respirators, etc. to comply with potential emergency conditions and in accordance with NIOSH guidelines.
- .4 Site personnel handling hazardous waste material are required to wear environmental protection equipment in accordance with NIOSH guidelines.
- .5 Establish a Temporary Storage Area as indicated.

- .6 Handle materials containing asbestos in accordance with Section 02 82 11 - Asbestos Abatement - Intermediate Precautions.

3.3 Temporary Storage Area

- .1 Establish a Temporary Storage Area for the purpose of:
 - .1 Sorting, packaging, sampling, and processing hazardous waste materials;
 - .2 Consolidation of compatible liquids and solids, packaging for shipment; and
 - .3 Consolidation of non-hazardous debris prior to transfer off-site to the Contractor's Receiving Site.
- .2 Establish the Temporary Storage Area to:
 - .1 be of sufficient size and capacity to accommodate the volume of hazardous material and equipment to be disposed of off-site, and the volume of non-hazardous debris to be transferred to the Contractor's Receiving Site, and
 - .2 isolate hazardous materials from other work operations.
- .3 Immediately clean up any spills, leaks, or other releases of liquid or sediment from this area as per Section 01 35 43 - Environmental Protection, and in accordance with the Site Specific Health and Safety Plan.
- .4 Submit details of the Temporary Storage Area to Departmental Representative for review and approval prior to commencing remediation activities.
- .5 Submit to Departmental Representative a detailed inventory of the contents of each container and packaging configuration.

3.4 Removal and Sorting of Hazardous Waste Materials

- .1 Continually monitor the demolition operation to identify potentially hazardous material.
- .2 Immediately suspend the operation if suspected hazardous material or debris is identified and allow visual confirmation of the nature of the material or debris to be established.
- .3 Store suspicious material in a secured area or secured containers, if the nature of the material or debris can not be confirmed. Advise Departmental Representative about the findings. Material needs to be seized until the nature of the material is confirmed by Departmental Representative. Testing for classification will be carried out and paid for by Departmental Representative.
- .4 Remove hazardous waste materials from their place of origin, place in containers, and transport containers to the Temporary Storage Area.
- .5 Remove hazardous liquid waste from the AST and associated pipes in accordance with AHJ and Federal regulations, place in containers, and transport off-site to the Contractor's Receiving Site.
- .6 Remove hazardous materials derived from demolition work from their place of origin in accordance with Section 02 41 16 - Structure Demolition place in containers and transport to Contractor's Receiving Site.
- .7 Remove asbestos in accordance with Section 02 82 11 - Asbestos Abatement — Intermediate Precautions.

- .8 Avoid releasing any hazardous materials into the environment during the handling of hazardous waste materials.
- .10 Invoke the approved emergency response plan and take the appropriate action in the event of a spill or other emergency situation.
- .11 Have available, a full range of cleanup and protective equipment (PPE) at the site of debris removal to contain and cleanup spills, and protect personnel as required. The cleanup is to include booms (sorbent and containment), sorbents for cleanup, over-packs for drums and contaminated soils, pumps, hand shovels, and picks.
- .12 Personnel protective equipment as per Section 01 35 32 Site Specific Health and Safety Plan is to include clothing protective suits respirators etc in accordance with NIOSH Guidelines and to comply with anticipated and potential emergency conditions.
- .13 Site personnel in the vicinity of the debris removal operations or handling hazardous material are required to wear environmental protection equipment in accordance with NIOSH guidelines and the Site Specific Health and Safety Plan.
- .14 Advise Departmental Representative of any spills during debris removal operations. Immediately clean up any spills, leaks, or other releases of liquid or sediment from this area as per Section 01 35 43 - Environmental Protection, and in accordance with the Site Specific Health and Safety Plan.
- .15 Submit details of the containers for handling and disposal of hazardous waste materials to Departmental Representative for review prior to commencement of site remediation activities. Include all required approvals, as well as a description of the type and volume of containers.

3.5 Cleaning of Fuel Tanks and Pipelines on Existing Equipment

- .1 On-site equipment and debris to be packaged for off-site transport may contain or have fuel or oil reservoirs which may contain product.
- .2 Prior to the demolition and removal of any liquid reservoirs and associated lines drain all equipment in accordance with Federal and Territorial Regulations.
- .3 Place all similar liquid waste as well as any absorbent materials used in recovering the liquid waste into drums for off-site disposal at the Contractor's Designated Hazardous Waste Disposal Facility.

3.6 Inventory and Packaging of Containers

- .1 Provide a numbering system and maintain an inventory of all containers to be transported and disposed of off-site.
- .2 Label all containers, using spray paint or other means, with the Container number and contents (e.g. Haz Debris).
- .3 Package and label each "hazardous material" in accordance with the "Class" and "Packaging Group" as per the *TDGA*.

- .4 Submit to Departmental Representative, a copy of the inventory of the contents of each container.
- .5 Provide certificates to the Departmental Representative of the hazardous waste material disposal once the waste material has been received by the Contractor's Receiving Site and prior to final payment.

END OF SECTION

PART 1 GENERAL

1.1 Section Includes:

- .1 Requirements and procedures for asbestos abatement on friable asbestos-containing materials.
- .2 Comply with requirements of this Section when performing following work:
 - .1 Removing miscellaneous parts from equipment and building materials which are known to contain asbestos as indicated by the Department Representative or indicated in Appendix B.
 - .3 Cut, shape, grind, drill, scrape or abrade materials mentioned above using hand powered tools, or using power tools equipped with a HEPA filter.

1.2 References

- .1 Department of Justice Canada (Jus).
 - .1 Canadian Environmental Protection Act, 1999 (CEPA).
- .2 Transport Canada (TC).
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA).
- .3 Government of Nunavut
 - .1 Occupational Health & Safety Regulations, DRAFT September 2010

1.3 Definitions

- .1 HEPA vacuum: High Efficiency Particulate Air filtered vacuum equipment with filter system capable of collecting and retaining fibres greater than 0.3 microns in any direction at 99.97% efficiency.
- .2 Amended Water: water with non-ionic surfactant wetting agent added to reduce water tension to allow thorough wetting of fibres.
- .3 Asbestos-Containing Materials (ACMs): materials identified under Existing Conditions including fallen materials and settled dust.
- .4 Asbestos Work Area: area where work takes place which will, or may, disturb ACMs.
- .5 Authorized Visitors: Department Representative or designated representatives, and representatives of regulatory agencies.
- .6 Non-Friable Material: material that when dry cannot be crumbled, pulverized or powdered by hand pressure.
- .7 Occupied Area: any area of the building or work site that is outside Asbestos Work Area.
- .8 Polyethylene: polyethylene sheeting or rip-proof polyethylene sheeting with tape along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide protection and isolation.
- .9 Sprayer: garden reservoir type sprayer or airless spray equipment capable of producing mist or fine spray. Must have appropriate capacity for work.

1.4 Submittals

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit proof satisfactory to Department Representative that suitable arrangements have been made to dispose of asbestos-containing waste in accordance with requirements of authority having jurisdiction.
- .3 Submit Territorial and/or local requirements for Notice of Project Form.
- .4 Submit proof of Contractor's Asbestos Liability Insurance.
- .5 Submit to Department Representative necessary permits for transportation and disposal of asbestos-containing waste and proof that asbestos-containing waste has been received and properly disposed.

1.5 Quality Assurance.

- .1 Regulatory Requirements: comply with Federal, Territorial, and local requirements pertaining to asbestos, provided that in case of conflict among these requirements or with these specifications, more stringent requirement applies. Comply with regulations in effect at time Work is performed.
- .2 Health and Safety:
 - .1 Undertake construction occupational health and safety in accordance with Section 01 35 32 - Site Specific Health and Safety Plan.
 - .2 Safety Requirements: worker protection.
 - .1 Protective equipment and clothing to be worn by workers while in Asbestos Work Area include:
 - .1 Non-powered reusable or replaceable filter-type respirator equipped with HEPA filter cartridges, personally issued to worker and marked as to efficiency and purpose, suitable for protection against asbestos and acceptable to Territorial Authority having jurisdiction.
 - .2 Disposable-type protective clothing that does not readily retain or permit penetration of asbestos fibres, consisting of full-body covering including head covering with snug-fitting cuffs at wrists, ankles, and neck.
 - .2 Eating, drinking, chewing, and smoking are not permitted in Asbestos Work Area.
 - .3 Before leaving Asbestos Work Area, dispose of protective clothing as contaminated waste as specified.
 - .4 Ensure workers wash hands and face when leaving Asbestos Work Area. Facilities for washing are to be located adjacent to the work areas.
 - .5 Ensure that no person required to enter an Asbestos Work Area has facial hair that affects seal between respirator and face.

1.6 Waste Management and Disposal

- .1 Segregate and dispose of waste materials.
- .2 Remove and dispose of packaging materials off-site.
- .3 Separate and place in designated containers steel, metal and plastic waste.

- .5 Place materials defined as hazardous or toxic in designated containers.
- .6 Handle and dispose of hazardous materials in accordance with the CEPA, TDGA, Regional and Municipal regulations.
- .7 Fold up metal banding, flatten and place in designated area for recycling.
- .8 Disposal of asbestos waste generated by removal activities must comply with Federal, Territorial and Municipal regulations. Dispose of asbestos waste in sealed double thickness 6 ml bags or leak proof drums. Label containers with appropriate warning labels.
- .9 Provide manifests describing and listing waste created. Transport containers by approved means to the Contractor's Receiving Site for disposal in their landfill.

1.7 Existing Conditions

- .1 Reports and information pertaining to ACMs to be handled, removed, or otherwise disturbed and disposed of during this project are summarized in Appendix B and included in the reference documents.
- .2 Notify Department Representative of friable material discovered during Work and not apparent from drawings, specifications, or report pertaining to Work. Do not disturb such material pending instructions from Department Representative.

1.8 Instructions

- .1 Before beginning Work, provide Department Representative satisfactory proof that every worker has had instruction and training in hazards of asbestos exposure, in personal hygiene and work practices, and in use, cleaning, and disposal of respirators and protective clothing.
- .2 Instruction and training related to respirators includes, following minimum requirements:
 - .1 Fitting of equipment.
 - .2 Inspection and maintenance of equipment.
 - .3 Disinfecting of equipment.
 - .4 Limitations of equipment.
- .3 Instruction and training must be provided by a competent, qualified person.

1.9 Signs

- .1 Signage: Display signs in all work areas where access to a contaminated area is possible. The English version of the signs is to read:

CAUTION, ASBESTOS HAZARD AREA.
UNAUTHORIZED ENTRY PROHIBITED.
WEAR PROTECTIVE EQUIPMENT.
- .2 Sign letters: all lettering is to be HELVETICA Medium font. The letter size is to be:
English:
Caution, Asbestos Hazard Area. 25 mm

Unauthorized entry prohibited:	19 mm
Wear Protective Equipment	19 mm

1.10 Measurement for Payment

- .1 The removal, separation, packaging, transportation and disposal of asbestos from structures and equipment to be demolished or removed from site will be measured for at the lump sum price under Item 02 82 11-1 Asbestos Abatement – Intermediate Precautions in the Basis of Pricing Schedule and will include, but not limited to, the following:
 - .1 Supply of all materials, labour, and equipment necessary to perform the work in accordance with these specifications, including the supply and transport to the site of asbestos waste containers.
 - .2 Construction of temporary enclosures as required.
 - .3 Handling and separation of asbestos materials.
 - .4 Preparation of asbestos inventory.
- .2 The transport and disposal will be measured for at the lump sum price under 02 82 11-2, in the Basis of Pricing Schedule and will include, but not be limited to, the following:
 - .1 Supply of all materials, labour, and equipment necessary to transport the asbestos materials to the Contractor's Designated Disposal Facility
 - .2 Transportation Fees.
 - .3 Tipping Fees.
- .2 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Pricing Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 18 - Construction Progress Schedules — Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Materials

- .1 Drop Sheets:
 - .1 Polyethylene: 0.15 mm thick.
 - .2 FR polyethylene: 0.15 mm thick woven fibre reinforced fabric bonded both sides with polyethylene.
- .2 Wetting Agent 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with water in a concentration to provide thorough wetting of asbestos-containing material.
- .3 Waste Containers: contain waste in two separate containers.
 - .1 Inner container: 0.15 mm thick sealable polyethylene waste bag.
 - .2 Outer container: sealable metal or fibre type where there are sharp objects included in waste material; otherwise outer container may be sealable metal or fibre type or second 0.15 mm thick sealable polyethylene bag.
 - .3 Labelling requirements: affix preprinted cautionary asbestos warning in both official languages that is visible when ready for removal to disposal site.

PART 3 EXECUTION

3.1 Procedures

- .1 Do construction occupational health and safety in accordance with Section 01 35 32 -

Site Specific Health and Safety Plan.

- .2 Before beginning Work, isolate and prepare the Asbestos Work Area as follows:
 - .1 Remove visible dust from surfaces in the work area where dust is likely to be disturbed during course of work.
 - .2 Use HEPA vacuum or damp cloths where damp cleaning does not create a hazard and is otherwise appropriate.
 - .3 Do not use compressed air to clean up or remove dust from any surface.
- .3 Prevent spread of dust from Asbestos Work Area using measures appropriate to work to be done.
 - .1 Use FR polyethylene drop sheets over flooring such as carpeting that absorbs dust and over flooring in Asbestos Work Area where dust and contamination cannot otherwise be safely contained.
- .4 Wet materials containing asbestos to be cut, ground, abraded, scraped, drilled, or otherwise disturbed unless wetting creates hazard or causes damage.
 - .1 Use garden reservoir type low - velocity fine - mist sprayer.
 - .2 Perform Work to reduce dust creation to lowest levels practicable.
 - .3 Work will be subject to visual inspection and air monitoring.
 - .4 Contamination of surrounding areas indicated by visual inspection or air monitoring will require complete enclosure and clean-up of affected areas.
- .5 Clean-Up:
 - .1 Frequently during Work and immediately after completion of Work, clean up dust and asbestos-containing waste using HEPA vacuum or by damp mopping.
 - .2 Place dust and asbestos-containing waste in sealed dust-tight waste bags. Treat drop sheets and disposable protective clothing as asbestos waste; wet and fold these items to contain dust, and then place in plastic bags.
 - .3 Clean exterior of each waste-filled bag using damp cloths or HEPA vacuum and place in second clean waste bag immediately prior to removal from Asbestos Work Area.
 - .4 Seal and remove double-bagged waste from site. Dispose of in accordance with requirements of Territorial and Federal authority having jurisdiction at the landfill facilities at the Contractor's Receiving Site. Ensure that dump operator is fully aware of hazardous nature of material to be dumped and that applicable guidelines and regulations for asbestos disposal are followed.
 - .1 Asbestos waste must be packaged in a manner to account for the short term storage of the waste material pending its transfer to the landfill at the Contractor's Receiving Site.
 - .5 Perform final thorough clean-up of Work areas and adjacent areas affected by Work using HEPA vacuum.

END OF SECTION

PART I GENERAL

1.1 Description

- .1 This Section specifies requirements for:
 - .1 General site grading and maintenance of designated areas and Temporary Staging Areas.
 - .2 The Upgrading and Maintenance of site access routes.
 - .3 Restoration of worked areas, waste debris areas and depressions created by the removal of debris.

1.2 Definition

- .1 Re-shaping: The leveling and grading of designated areas to blend in with the natural terrain and provide positive drainage. Reshaping does not require the supply and placement of additional materials but does entail spreading and compaction of the surplus materials.
- .2 Re-grading: The leveling and grading of designated areas and which includes the supply and placement of additional fill to blend in with the natural terrain and provide positive drainage.

1.3 Site Conditions

- .1 Ensure that all work under this section meet the terms and references of applicable operations-use permits for the site.
- .2 Suspend operations whenever climatic conditions are unsatisfactory for grading or re-shaping to conform to this Specification.
- .3 Only operate equipment in work areas where materials are sufficiently dry to prevent excessive rutting.
- .4 Areas to be graded or shaped are to be free from debris and excessive snow, ice or standing water.

1.4 Protection

- .1 Protect unanticipated archaeological resources encountered during construction, suspend all activities in that area and notify Departmental Representative immediately.
- .2 Environmental protection measures are to be in accordance with the requirements specified in Section 01 35 43 - Environmental Protection. Follow the approved Erosion, Sediment and Drainage Control Plan submitted in accordance with Section 01 35 43 - Environmental Protection.
- .3 Prevent damage to the garage building and the utilidor (underground services). Immediately repair any damage, at no cost to Departmental Representative

1.5 Samples

- .1 Inform Departmental Representative of proposed source materials and provide access for sampling.

1.6 Measurement of Payment

- .1 Site re-grading and re-shaping will be paid as a lump sum under Item 31 22 15-1, in the Basis of Payment Schedule. Diversion and draining to keep areas free of standing water comprises part of the site preparation and maintenance general grading work.
- .2 General re-grading and re-shaping work for the site will be created by the removal of demolition debris. For bidding purposes the footprint of the building is approximately 277 m².
- .3 The lump sum prices for the work is to include all ownership, operating and supervisory costs including costs for the equipment operator, fuel, lubricants, labour, and parts necessary to maintain the equipment.
- .4 The following work items will be incidental to the work described in this Section, and will not be measured separately:
 - .1 Water for moisture conditioning, compaction and dust control.
 - .2 All construction surveying.
 - .3 Surveying and calculation of granular material quantities
- .8 No measurement for payment will be made for:
 - .1 Rejected material.
 - .2 Surplus material.
 - .3 Excavation, stripping and replacement of organic material beyond specified limits.
 - .4 Placement of backfill beyond the limits and depths specified.
- .9 The reshaping and regarding as required will be measured for at the lump sum price under 31 22 15-1 in the Basis of Pricing Schedule
- .10 Except as indicated above, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 18- Construction Progress Schedules — Bar (GANTT) Chart.

PART 2 PRODUCTS

2.1 Materials

- .1 Backfill requires the approval of Departmental Representative.

PART 3 EXECUTION

3.1 General site grading and maintenance

- .1 Maintain natural drainage patterns and keep areas free of standing water.

3.2 Upgrading and maintenance of access routes

- .1 Upgrade and maintain access routes to facilitate work.

- .2 Ensure drainage of access routes and adjacent lands to provide surface drainage. Where necessary, cut swales to channel surface drainage in such a manner as to minimize surface erosion.

3.3 Site restoration of worked areas

- .1 Re-shape and re-grade work areas and depressions created by the removal of debris, and relocation of debris.
- .2 Ensure drainage of restored areas to maintain natural drainage patterns and keep areas free of standing water.

3.4 Temporary Storage Area

- .1 Develop a Temporary Storage Area for the storage of containerized hazardous waste materials as required.
- .2 Prepare the Temporary Storage Area to comply with the AHJ and approved by Departmental Representative.
 - .1 Provide easy access to the off-site transport equipment. For the purposes of this contract a 15 m by 15 m area is to be assumed.
 - .2 Allow the equipment and packaging containers to be level and distribute the weight of the containers evenly to the supporting surface.
 - .3 The area is to be free of standing water.
 - .4 Surface water run-on to the area must be minimized. The area must not be subject to flooding, excessive snow drifting, and/or seasonal saturation.
 - .5 Sufficiently compact the area so as to prevent the containers from settling into the soil.
 - .6 Locate at least 30 m from any body of water.
 - .7 More than 30 metres away from flammable materials.
 - .8 Set timbers or another form of base to ensure that containers used to package non-hazardous and hazardous materials going off-site do not freeze to the ground prior to demobilization from site.
- .3 Within the Temporary Storage Areas, segregate the various types of containerized materials as described in Section 02 61 33 - Hazardous Waste Material.
- .4 Provide signage for Temporary Storage Area in accordance with Section 02 61 33 - Hazardous Waste Material.
- .5 Erect a barricade to demarcate the limits of the Temporary Storage Area.

3.5 Maintenance

- .1 Maintain finished surfaces in a condition in accordance with this Section until demobilization.

END OF SECTION

LEGEND:

RM-6 FUNCTIONAL AREA



THROUGHOUT FUNCTIONAL AREA

VSF

ASBESTOS VINYL SHEET FLOORING

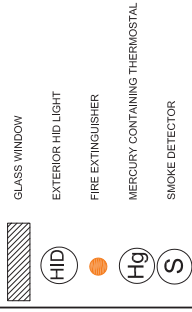


PUBLIC WORKS AND GOVERNMENT
SERVICES CANADA

**LOCATIONS OF
ASBESTOS-CONTAINING MATERIALS**
ENVIRONMENT CANADA, BLDG. 1082
IQALUIT, NUUNUT
FLOOR PLAN

Drawn By: J.S.Z.	Approved By: J.M.	Project No.: 350000-505
Date: SEPT, 2013	Scale: AS SHOWN	FIGURE 2

LEGEND:



SENEC Consultants

PUBLIC WORKS AND GOVERNMENT
SERVICES CANADA

DESIGN CONSTRUCTION

FLOOR PLAN

ENVIRONMENT CANADA, BLDG. 1082
IQALUIT, NUUNUT

FLOOR PLAN

Drawn By: J.S.Z.	Approved By: J.M.	Project No.: 350000-505
Date: SEPT, 2013	Scale: AS SHOWN	Drawing No: APPENDIX A



Photo 1: Front of Building.



Photo 2: Rear of Building.



Photo 3: Furnace Oil AST.



Photo 4: Pole-Mounted Transformer.



Photo 5: Furnace System.



Photo 6: Suspect Mould of Wood.



Photo 7: Suspect Mould on Furniture.



Photo 8: Mercury-Containing Thermostats.



Photo 9: Fluorescent lights (typical throughout).



Photo 10: Vinyl sheet flooring (typical throughout).



Photo 11: Vinyl sheet flooring (typical throughout).

Specification Section	Description	Date
01 31 19	Construction Schedule	Within five (5) days of Contract Award
01 11 00	Worker Orientation Course Seminar	One (1) week prior to site work.
01 31 19	Pre-Mobilization Site Visit Report	Within seven (7) days of completing the visit
01 33 00	Final Photographs	Prior to final Progress Claim Request
01 35 32	Site Specific Health and Safety Plan	Within fifteen (15) days of Contract Award
01 35 32	Emergency Response Plan	As Part of the Site Specific Health and Safety Plan
01 35 32	Spill Contingency Plan	As Part of the Site Specific Health and Safety Plan
01 35 32	Fire Safety Plan	As Part of the Site Specific Health and Safety Plan
01 35 32	Proof of PPE certification (including Respiration Fit Testing Requirement)	Prior to Work Activities
01 35 32	Report Accidents	Verbal report immediately followed by written report in 24 hours
01 35 32	Hot Work Permit	Prior to Hot Work Commencing
01 77 00	Certification of Completed Work	As Work is Completed
01 78 00	Project Records	As Required
02 61 33	Bills of Lading	Upon Transfer of Material to Barge
02 61 33	Certificate of Disposal	Upon Transfer of Material to Disposal Site

Basis of Payment
Schedule

Item #	Description	Unit	Quantity	Unit Price	Total
BOPC-1	Balance of Project Costs including but not limited to: - Any variable Indirect costs for Overhead and Admin., - Profit - Costs for Expeditors, - Closeout Submittals, - Commercial General Liability (CGL) Insurance, - All Risk Insurance, - WSCC costs, - Business Expenses, - Contractor's portion of Training Expenses, - EMT, - Ancillary Equipment, - Service Vehicles, - Supervision, - Equipment repairs and parts supply & transport.	lump sum	1		\$ _____
01 11 00-1	Worker Orientation Seminar	lump sum	1		\$ _____
01 35 32-1	Site-Specific Health and Safety Plan	lump sum	1		\$ _____
01 35 43-1	Environmental Protection Supplies	lump sum	1		\$ _____
01 53 00-1	Mobilization	lump sum	1		\$ _____
01 53 00-2	Demobilization	lump sum	1		\$ _____
01 78 00-1	Closeout Submittals	lump sum	1		\$ _____
02 41 16-1	Demolition: Building 1082	lump sum	1		\$ _____
02 41 23-1	Debris Removal, Transport, and Disposal at Contractor's Designated Waste Facility	cubic metre	156	\$ _____	\$ _____
02 61 33-1	Supply of Containers - Hazardous Waste Materials	lump sum			\$ _____
02 61 33-2	Containerization of Hazardous Waste Solid Materials (excluding asbestos)	lump sum			\$ _____
02 61 33-3	Containerization of Hazardous Liquid Materials	lump sum			\$ _____
02 61 33-4	Off-site Transport of Containerized Hazardous Waste to Contractor's Designated Hazardous Waste Disposal Facility	lump sum			\$ _____
02 82 11-1	Consolidate and Package asbestos containing materials (ACM)	cubic metre	6	\$ _____	\$ _____
02 82 11-2	Load and Transport ACM to Contractor's Designated Waste Disposal Facility	cubic metre	6	\$ _____	\$ _____
31 22 15-1	Reshaping	lump sum	1		\$ _____

	Sub-Total Estimated Price Basis Of Payment (BOP)	\$ _____
	G.S.T. (5%)	\$ _____
	Total Estimated Price (BOP)	\$ _____

Spec Section #	Provision of Item Breakdown(s)	Amount
	This form is intended to provide the Contracting Authority with a breakdown of the costs included in the BOPC. It will assist in determining if the cost represents value for money and are considered "fair and reasonable". Note: Refer to 1031-2 article 07 for Non Applicable Costs. Further breakdown may be requested where applicable.	
	Balance of Project Costs including but not limited to:	
01 11 00-1	i.e.: Profit General & Admin Overhead CGL insurance WSCC Miscellaneous.....	\$ \$ \$ \$ \$
01 31 19		\$
01 32 18		\$
01 33 00		\$
01 35 32		\$
01 35 43		\$
01 41 00		\$
01 45 00		\$
01 53 00		\$
01 77 00		\$
01 78 00		\$
02 41 16		\$
02 41 23		\$
02 61 33		\$
02 82 11		\$
31 22 15		\$
		\$
	Total for BOPC Breakdown. This dollar amount should be equal to that of which is provided in the Basis of Pricing BOPC-1.	\$