1.1 DESCRIPTION OF WORK

.1 In general, work under this contract consists of, but is not limited to, the supply of all equipment, material, services and personnel required to complete the following:

.1 Demolition and disposal of all hazardous (including some asbestos-containing materials) and non-hazardous material, of the site's existing Building No. 6.

.1 Include breakdown of concrete foundation of main building to 600 mm below existing grade. Broken down foundation not suitable for backfill. Dispose of material off site at an approved Construction and Demolition Waste Facility.

.2 All construction waste material must be segregated and dispose of in accordance with the authority having jurisdiction.

.3 Payment shall be inclusive of all costs for removal, handling and transportation.

.4 Costs associated with the separation of debris, traffic control, sorting, transportation, environmental protection, cleaning, loading, unloading, haulage, and all else necessary to complete this item, are to be considered incidental to the work. No separate payment will be made.

.2 Removal, purging of contents and associated lines and disposal of a boiler tank (AST) in accordance with the applicable authority having jurisdiction.

.3 Removal and disposal of domestic water line and capping.

.4 Disconnection of power supply at both ends.

.5 Segregation and disposal of all materials non-hazardous and hazardous, (construction/demolition debris.

.1 All waste material must be disposed of in accordance with the authority having jurisdiction.

.2 Area to be brought back to grade and graded after removal of debris.

.3 Included incidentals to the costs are

excavation and separation of the debris, traffic control, sorting, transportation, rough grading, earthworks, environmental protection, cleaning, loading, unloading, haulage, and all else necessary to complete this item.

.6 Site restoration: brought back to grade and grading to drain to the surrounding and to be stabilized to the satisfaction of the Departmental Representative.

.7 Works must be complete within eight (8) weeks of award.

.8 All applicable permits, licenses, certificates, as well as permission, approval or letters of authority must be submitted prior to commencement of work.

.9 Mobilization and demobilization:

.1 Mobilization and demobilization will not be measured for payment and is considered incidental to the contract.

.2 Mobilization and demobilization will involve mobilization to and from the site as well as requirements on the site.

.10 Site maintenance and snow clearing is considered incidental to the work. No separate payment shall be made for site maintenance and snow clearing.

.11 Control of erosion and sediment is considered incidental to the work. No separate payment shall be made for erosion and sediment control.

.12 Provision of Site Security inclusive of safety signage, enclosures, gates, barricades and personnel is considered incidental to the work. No separate payment shall be made for provision of site security.

.2 Site of Work is at: Potato Research Centre, Building No. 6, Agriculture and Agri-Food Canada, 850 Lincoln Road, York County, Fredericton, N. B.

1.2 FAMILIARIZATION WITH SITE

.1 Before submitting a bid, it is recommended that bidders visit the site to review and verify the form, nature and extent of the work, materials needed, the means of access, and the temporary facilities required to perform the Work, and all information necessary for the proper carrying out of the work covered by this Specification. Submission of bid will be deemed that Contractor is conversant with site conditions. The site layout and location is provided in Appendix A - Site Location and General Layout. Additional information is provided in Appendix B - Environmental Reports.

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

.3 The Departmental Representative will give no consideration whatsoever to any claim by the Contractor resulting from failure to have made all the necessary investigations prior to tendering.

1.3 CODES AND STANDARDS

.1 Perform work in accordance with the National Building Code of Canada (of latest edition as adopted by the province and municipality of the work location) and any other code of provincial or local application, including all amendments up to bid closing date, provided that in any case of conflict or discrepancy, the more stringent requirement shall apply.

.2 Perform electrical work in accordance with CSA C22.1-2006. Use only licensed electricians to carry out such work.

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

1.4 INTERPRETATION OF DOCUMENTS

.1 Supplementary to the General Conditions of the Contract, the Division 01 sections take

precedence over the technical specification sections in other Divisions of the Specification Manual.

1.5 SETTING OUT WORK

.1 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.

.2 Supply stakes and other survey markers required for laying out work.

.3 Provide devices needed to lay out and construct work.

.4 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.

1.6 CONTRACTOR'S USE OF THE SITE

.1 Use of site: limited to areas of work being carried out and as follows:
.1 Access to all exits must be maintained during normal working hours and where work shall be performed outside of the normal working hours as defined by the Departmental Representative.
.2 Limited onsite parking is permitted for construction work force at the construction site. Provide bilingual directional signage to clearly define and separate construction work force parking from the Potato Research Centre staff parking.
.3 Limited exterior storage on site is permitted within the construction areas, provided that operations at the Potato Research Centre are not restricted.
.4 Do NOT unreasonably encumber the site with materials and equipment. Move materials and/or equipment as directed by the Departmental Representative which interferes with Potato Research Centre operations, or with ongoing construction operations of other contracts at the site.

.5 Move stored materials, products and/or equipment which interfere with the operations of the Potato Research Centre and the Departmental Representative.
.6 Maintain mechanical, electrical, and other services to all existing structures on a continuous basis. Disruptions to services are NOT permitted.
.7 Maintain the access road to the site and to the existing structures for the duration of the Contract. Access for emergency vehicles is to be kept open at all times.
.8 Maintain access to the existing fire hydrants.
.9 Maintain roads through the construction areas free of snow and ice, and maintain the roads free of potholes and soft spots, suppressing dust on the earth roads.
.10 Provide temporary road improvements and alternative means where the Potato Research Centre's daily operations are negatively impacted.
.11 Maintain access to the adjacent buildings throughout the duration of the Contract.
.12 Maintain gravel surfaced access roads or surfaces smooth, level, firm, and free of potholes through the duration of the work.
.13 The Contractor shall make every effort to limit the generation of dust and shall spray water on dust generating activities.

1.7 MEASUREMENT FOR PAYMENT

.1 Refer to Section 01 22 00 - Measurement and Payment.

1.8 PROJECT MEETINGS

.1 Schedule and administer project meetings, held on a minimum bi-weekly basis, for entire duration of work and more often when directed by Departmental Representative as deemed necessary due to progress of work on particular situation.

.2 Prepare agenda for meetings.

.3 Notify participants in writing 4 days in advance of meeting date.
.1 Ensure attendance of all subcontractors.
.2 Departmental Representative will provide list of other attendees to be notified.

.4 Hold meetings at project site or where approved by Departmental Representative.

.5 Preside at meetings and record minutes.
.1 Indicate significant proceedings and decisions. Identify action items by parties.
.2 Each meeting shall review schedule and progress to date.
.3 Distribute to participants by mail or by facsimile within 3 calendar days after each meeting.
.4 Make revisions as directed by Departmental Representative.
.5 Departmental Representative will advise whether submission of minutes by e-mail is acceptable. Decision will be based on compatibility of software among participants.

1.9 DOCUMENTS REQUIRED

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

1.10 PERMITS

.1 In accordance with the the General Conditions, obtain and pay for building permit, certificates, licenses and other permits as required by municipal, provincial and federal authorities.

.2 Provide appropriate notifications of project to provincial inspection authorities having jurisdiction.

.3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work.

.4 Submit to Departmental Representative, copy of application made, permits and approvals received from above referenced authorities.

1.11 CUTTING, FITTING AND PATCHING

.1 Contractor shall ensure that cutting and patching for all trades are included in his tender price bid for the work.

.2 Execute cutting including excavation, fitting and patching required to make work fit properly.

.3 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work. This includes patching of openings in existing work resulting from removal of existing services.

.4 Do not cut, bore, or sleeve load-bearing members.

.5 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

.6 Fit work airtight to pipes, sleeves, ducts and conduits.

1.12 EXISTING SERVICES

.1 Where work involves breaking into or connecting to existing services, carry out work at times

directed by governing authorities, with minimum of disturbance to. building occupants and on-going building operations.

.2 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.

.3 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties. Provide minimum 48 hours notice for any closure of active service.

.4 Provide temporary services when directed by Departmental Representative to maintain critical building or site service systems.

.5 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.

.6 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.

.7 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction over service. Record locations of maintained, re-routed and abandoned service lines.

1.13 ACCEPTANCES

.1 Notify Departmental Representative in writing when work is complete and ready for final inspection.
.1 Make a check of all work and correct all discrepancies, defects and outstanding work before sending notification.

.2 Accompany Departmental Representative during final inspection.

.3 Rectify all defects, faults and outstanding items identified by Departmental Representative during

inspection.

.4 Be aware that the Final Certificate of Completion will not be issued until such time that Contractor has fully completed and turned over all specified as-built project documents, training and maintenance manuals, test results and any guarantee/warranty certificates as issued by any manufacturer.

1.14 WORK COORDINATION

.1 Contractor is responsible for coordinating the work of the various trades and pre-determining where the work of such trades interfaces with each other.

.1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.

.2 Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required.

.1 Provide each trade with the plans and specs of the interfacing trade, as required, to assist them in planning and carrying out their respective work.

.2 Develop coordination drawings when deemed required illustrating potential interference between work of various trades and distribute to all affected parties including structural trade.

.1 Pay particularly close attention to overhead work and within or near to building structural elements.

.2 Coordination drawings to identify all building elements, service lines, rough-in points and indicate from where various services are coming.

.3 Review coordination drawings at purposely called meetings. Have subcontractors sign-off on drawings and publish minutes of each meeting.

.4 Plan and coordinate work in such a way to minimize quantity of service line offsets.

.5 Submit copy of coordination drawings and meeting minutes to Departmental Representative.

.3 Submission of shop drawings and ordering of prefabricated equipment or prebuilt components shall only occur once coordination meeting for such items has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.

.4 Work Cooperation:
.1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
.2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.

.5 Public Works and Government Services Canada will not be responsible for or held accountable for any extra costs incurred as a result of the failure to carry out coordination work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor and shall be resolved by him at no extra cost to the Contract.

1.15 OTHER CONTRACTS

.1 Other contracts for work at the site of Building No. 6 may be in progress at the Potato Research Centre, and future contracts may be let or tendered during the period that the work of this Contract is in progress.

.2 Cooperate with other Contractors in carrying out their respective works and carry out al instructions from the Departmental Representative in this regard.

.3 Connect properly and coordinate work with that of other Contractors. If any part of the work under this Contract depends for its proper execution or result upon the work of another Contractor, report promptly to the Departmental

Representative, in writing, any defects in the work of such other Contractors as may interfere with the proper execution of the work of this Contract.

.4 Hold joint health and safety meetings at least every two (2) weeks and adopt the more stringent health and safety requirement wherever conflicts occur.

1.16 BILINGUAL NOTATIONS

.1 Factory embossed or recessed symbols illustrating equipment operation is an acceptable alternate to lettering.

.2 Items supplied with factory-embossed or recessed lettering in one official language with an applied sticker or decal representing the second official language is not acceptable unless the Departmental Representative gives prior approval before any such items are ordered.

.3 Public Works and Government Services Canada will not be responsible for re-stocking or re-ordering costs incurred by the Contractor as a result of his failure to ensure bilingual designation on such items.

.4 The Contractor is responsible for ensuring that all trades are made aware of these requirements.

1.17 SANITARY SYSTEM AND SANITARY WASTE TREATMENT

.1 Existing site sanitary dumping system and all sanitary lines shall remain fully functional throughout the duration of the contract.

1.18 OWNER'S OPERATIONS AT THE SITE

.1 Where the Owners normal operations at the site are negatively impacted by the operations of the Contractor, the Contractor shall modify, reschedule or otherwise change such construction operations so the Owner's operations can be maintained. No additional compensation under the Contract will be paid to the Contractor as a result

of the adjustment of construction operations.

1.19 DEMOLITION PHASING

.1 Removal and proper disposal of hazardous materials see Section 01 33 00 - Submittals.

1.20 BUILDING SMOKING ENVIRONMENT

.1 Comply with smoking restrictions.

1.21 ASBESTOS DISCOVERY

.1 Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed with relevant work until written instructions have been received from Departmental Representative.

.2 Removal of asbestos containing materials contained within the Hazardous Materials Disposal in Appendix B forms part of the work of this contract.

1.22 INSPECTION AND TESTING

.1 The Departmental Representative may employ an inspector and/or testing company to ensure work conforms with contract.

1.23 SITE CONDITIONS

.1 Protect and/or maintain existing site conditions of areas not directly affected by work under this contract.

1.24 PROGRESSIVE CLEANING

.1 Maintain site in tidy condition, free from accumulation of waste products and debris.

.2 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of

waste and debris.

.3 Waste Management:
.1 Refer to Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.1 SUBMITTALS

.1 Upon acceptance of bid and prior to commencement of work, submit to Departmental Representative the following work management documents:
.1 Work Schedule as specified herein.
.2 Hazardous Waste Management Plan as specified in Sections 01 74 21, 02 82 00.02, 02 85 13, 33 56 13.
.3 Environmental Plan specified in Section 01 35 43
.4 Health and Safety Plan specified In Section 01 35 28.
.5 Hot Work procedures specified in section 01 35 24.
.6 Lockout Procedures specified in section 01 35 25.

1.2 WORK SCHEDULE

.1 Upon acceptance of bid submit:
.1 Work schedule within 7 calendar days of contract award.

.2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid.
.1 Work must be complete within eight (8) weeks of award.

.3 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.

.4 Work schedule content to include as a minimum the following:
.1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated durations, planned dates for achieving key activities and major project milestones supported with;
.2 Written narrative on key elements of work illustrated in bar chart, providing sufficient

details to demonstrate a reasonable implementation plan for completion of project within designated time.

.3 Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.

.5 Detailed Work schedule;

.1 Prepare by use of Critical Path Method (CPM) indicating:

.1 Complete and detailed sequence of all construction activities. Show projected start and completion dates for each activity.

.2 Number of calendar days required to carryout each activity.

.3 Critical Path items with resulting critical dates, non-critical activities and resulting float time.

.4 Actual workdays from non-working days such as weekend and statutory days etc….

.5 Projected and actual percentage of work completed for each major work activity.

.2 Prepare CPM schedule by use of well recognized and widely used electronic software. Submit copy of schedule in paper format and one electronic version on CD for each submission.

.3 Accompany CPM with written narrative as required and in sufficient detail to fully describe work and demonstrate a reasonable implementation plan for completion of project within designated time.

.6 Work schedule must take into consideration and reflect the work phasing, required sequence of work, special conditions and operational restrictions as specified below and indicated on drawings.

.7 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without

Departmental Representative's approval.

.8 Ensure that all subtrades and subcontractors are made aware of the work restraints and operational restrictions specified.

.9 Schedule Updates:
.1 Submit when requested by Departmental Representative.
.2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
.3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.

.10 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly

.11 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject to prior review and approval by the Departmental Representative.

.12 As specified in section 01 74 21, allow for an inspection of the work of removal of hazardous materials, and after removal has been completed by the Departmental Representative.

1.3 PROJECT PHASING

.1 Perform work of this contract in individual phases as indicated as submitted by the stamped demolition drawing, as per section 01 33 00, and in the following sequence of activities:
.1 Remove, transport and dispose of hazardous materials as identified in appendix B, LVM Maritime Testing Survey, and as per Appendix C, Jacques Whithford - Agriculture and Agri-Food Canada.

.2 Remove, transport and dispose of boiler tank system as per sections 02 82 00.02 and 33 56 13.
.3 Prior to starting the building demolition, the Contractor will wait for air quality testing Results.

.4 Complete the deconstruction/demolition of the building including the concrete floor, foundation and footings, asphalt concrete, concrete pad (under the asphalt, etc.)
.5 Backfill with clean fill to suit surrounding elevation.

.2 Unless indicated or approved otherwise, complete all work of a particular phase prior to commencement of another phase. Obtain Departmental Representative's permission prior to moving between phases.

1.4 Project Meetings

.1 Schedule and administer project meetings, held on a minimum bi-weekly basis, for entire duration of work and more often when directed by Departmental Representative as deemed necessary due to progress of work or particular situation.

.2 Contractor to prepare agenda for meetings.

.3 Contractor to notify participants in writing 4 days in advance of meeting date.
.1 Ensure attendance of all subcontractors.
.2 Departmental Representative will provide list of other attendees to be notified.

.4 Hold meetings at project site or where approved by Departmental Representative.

.5 Contractor to preside at meetings and record minutes.
.1 Indicate significant proceedings and decisions. Identify action items by parties.
.2 Distribute to participants by mail or by facsimile.
.3 Make revisions as directed by Departmental Representative.

.6 Departmental Representative will advise whether submission of minutes by Email is acceptable. Decision will be based on compatibility of software among participants.

1.5 WORK COORDINATION

.1 The General Contractor is responsible for coordinating the work of the various trades and predetermining where the work of such trades interfaces with each other.

.1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.

.2 The General Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required.

.1 Provide each trade with the plans and specs of the interfacing trade, as required, to assist them in planning and carrying out their respective work.

.2 Develop coordination drawings when deemed required illustrating potential interference between work of various trades and distribute to all affected parties including structural trade.

.1 Pay particularly close attention to overhead work above ceilings and within or near to building structural elements.

.2 Coordination drawings to identify all building elements, service lines, rough-in points and indicate from where various services are coming.

.3 Review coordination drawings at purposely called meetings. Have subcontractors sign-off on drawings and publish minutes of each meeting.

.4 Plan and coordinate work in such a way to minimize quantity of service line offsets.

.5 Submit copy of coordination drawings and meeting minutes to Departmental Representative for information purposes.

.3 Work Cooperation:
.1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
.2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.

.4 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at own cost.

1.6 RECORDS OF CONSTRUCTION

.1 Provide Departmental Representative with 'as-builts' field drawings that supply sufficient tie points to locate location of capped services, and the location/footprint of back-filled main building foundation.

.2 Maintain at job site, and provide a copy to Departmental Representative, a Material Removal Log, Hazardous Material Manifests.

1.7 INSPECTION COOPERATION

.1 Cooperate with Departmental Representative on inspection of work.

.2 Provide assistance when requested and any necessary equipment required.

PART 1 - GENERAL

1.1 GENERAL

.1 The Lump Sum prices are full compensation for the work necessary to complete each item in the Contract in the Form of Tender. The prices bid are complete and separate from other or related bid items.

.2 In the case of conflict between the instructions for measurement and payment contained in Section 01 22 00 and another Section of the Specifications, the requirements of Section 01 22 00 shall govern.

.3 No separate payment will be made for:

.1 Unauthorized work beyond the limits shown.
.2 Field engineering survey and layout of work.
.3 Erosion and Sediment Control.
.4 Water Management.
.5 Snow Removal.

1.2 LUMP SUM WORK

.1 The tendered price for lump sum work includes all items listed within the specification. Price includes all labour, materials, and equipment for complete supply and installation of the work.

.2 Mobilization/Demobilization including all equipment, temporary facilities, security, maintenance, snow clearing, and cleaning of site and public access roads (as required), securing all necessary regulatory permits, insurance and bonding, establishing health and safety protocol, and the construction, maintenance and decommissioning of all necessary temporary access roads.

.3 All demolition, material disposal (hazardous and non-hazardous), service disconnection/ reconnection, site excavation, construction, repairs and improvements and site restoration and landscaping, as contained in the specifications.

.4 Included will be the delays for hazardous waste abatement tests results. Including but not limited to air quality testing results.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not Used.

1.1 RELATED SECTIONS

.1 Section 01 74 21 - Construction/Demolition, Waste Management and Disposal.

1.2 SUBMITTAL GENERAL REQUIREMENTS

.1 Submit to Departmental Representative for review requested submittals specified in various sections of the specifications including shop drawings, samples, permits, compliance certificates, test reports, work management plans and other data required as part of the work.

.2 Submit with reasonable promptness and in orderly sequence so as to allow for Departmental Representative's review and not cause delay in Work. Failure to submit in ample time will not be considered sufficient reason for an extension of Contract time and no claim for extension by reason of such default will be allowed.

.3 Do not proceed with work until relevant submissions have been reviewed.

.4 Where items or information is not produced in SI Metric units, provide soft converted values.

.5 Verify field measurements and affected adjacent Work are coordinated.

.6 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.

1.3 SUBMITTAL FOR HAZARDOUS MATERIALS

.1 Contractor will submit within 15 days prior to starting hazardous material removal:

.1 Asbestos Removal:

.1 Provide name of facility where they will be disposing of asbestos prior to start of work.

.2 Boiler Tank Removal:

.1 Provide name of facility where they will be disposing of the asbestos on the associated components, and the metal from the boiler tank.

.2 Provide procedure for the tank removal.

.3 Led Paint Materials Removal and Disposal:
.1 Provide name of facility where these will be disposed of prior to start of work.

.4 PCB - Containing Lamps:
.1 Provide name of facility where these will be disposed of prior to start of work.

.5 Coal: Provide name of facility where this product will be disposed of prior to start of work.

.6 The Contractor will not be paid in full until all proof of hazardous materials disposal has been provided.

1.4 NOTIFICATION

.1 The Contractor will submit a hazardous removal schedule to the Departmental Representative.
.1 The Contractor will give 48 hours notification of any changes to this schedule.
.2 Contractor will not proceed with Hazardous Waste removal without the government paid environmental agency present, or unless approved by Departmental Representative.

1.1 SECTION INCLUDES

.1 Fire Safety Requirements

.2 Hot Work Permit

.3 Existing Fire Protection and Alarm Systems

1.2 RELATED WORK

.1 Section 01 35 28 Health and Safety Requirements

1.3 REFERENCES

.1 Fire Protection Standards issued by Fire Protection Services, Labour Program Division of Service Canada:
.1 FCC No. 301-June 1982 Standard for Construction Operations.
.2 FCC No. 302-June 1982 Standard for Welding and Cutting.

.2 FCC standards may be viewed at:
.1 http://www.hrsdc.gc.ca/en/lp/lo/fp/standards/commissioner.shtml
.2 Fire Protection Services - Atlantic Region office, Halifax, N.S, Tel. (902) 426-6053.

1.4 DEFINITIONS

.1 Hot Work defined as:
.1 Welding work
.2 Cutting of materials by use of torch or other open flame devices
.3 Grinding with equipment which produces sparks.
.4 Use of open flame torches such as for roofing work.

1.5 SUBMITTALS

.1 Submit copy of Hot Work Procedures and sample of Hot Work permit to Departmental Representative

for review, within 14 calendar days of acceptance of bid.

.2 Submit in accordance with section 01 33 00.

1.6 FIRE SAFETY REQUIREMENTS

.1 Implement and follow fire safety measures during Work. Comply with following:
.1 National Fire Code.
.2 Fire Protection Standards FCC 301 and FCC 302.
.3 Federal and Provincial Occupational Health and Safety Acts and Regulations.

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

1.7 HOT WORK AUTHORIZATION

.1 Obtain Departmental Representative's written "Authorization to Proceed" before conducting any form of Hot Work on site.

.2 To obtain authorization submit to Departmental Representative:
.1 Contractor's typewritten Hot Work Procedures to be followed on site as specified below.
.2 Description of the type and frequency of Hot Work required.
.3 Sample Hot Work Permit to be used.

.3 Upon review and confirmation that effective fire safety measures will be implemented and followed during performance of hot work, Departmental Representative will give authorization to proceed as follows:
.1 Issue one written "Authorization to Proceed" covering the entire project for duration of work or;

.2 Subdivide the work into pre-determined, individual activities, each activity requiring a separately written authorization to proceed.

.4 Requirement for individual authorization will be based on:
.1 Nature or phasing of work;
.2 Risk to Facility operations;
.3 Quantity of various trades needing to perform hot work on project or;
.4 Other situation deemed necessary by Departmental Representative to ensure fire safety on premises.

.5 Do not perform any Hot Work until receipt of Departmental Representative's written "Authorization to Proceed" for that portion of work.

.6 In tenant occupied Facility, coordinate performance of Hot Work with Facility Manager through the Departmental Representative. When directed, perform Hot Work only during non-operative hours of the Facility. Follow Departmental Representative's directives in this regard.

1.8 HOT WORK PROCEDURES

.1 Develop and implement safety procedures and work practices to be followed during the performance of Hot Work.

.2 Hot Work Procedures to include:
.1 Requirement to perform hazard assessment of site and immediate work area beforehand for each hot work event in accordance with Safety Plan specified in section 01 35 28.
.2 Use of a Hot Work Permit system with individually issued permit by Contractor's Superintendent to worker or subcontractor granting permission to proceed with Hot Work.
.3 Permit required for each Hot Work event.
.4 Designation of a person on site as a Fire Safety Watcher responsible to conduct a fire

safety watch for a minimum duration of 60 minutes immediately following the completion of the Hot Work.

.5 Compliance with fire safety codes, standards and occupational health and safety regulations specified.

.6 Site specific rules and procedures in force at the site as provided by the Facility Manager.

.3 Generic procedures, if used, must be edited and supplemented with pertinent information tailored to reflect specific project conditions. Label document as being the Hot Work Procedures for this contract.

.4 Procedures shall clearly establish responsibilities of:

.1 Worker performing hot work,

.2 Person issuing the Hot Work Permit,

.3 Fire Safety Watcher,

.4 Subcontractor(s) and Contractor.

.5 Brief all workers and subcontractors on Hot Work Procedures and of Permit system. Stringently enforce compliance.

1.9 HOT WORK PERMIT

.1 Hot Work Permit to include the following:

.1 Project name and project number;

.2 Building name and specific room or area where hot work will be performed;

.3 Date of issue;

.4 Description of hot work type needed;

.5 Special precautions to be followed, including type of fire extinguisher needed;

.6 Name and signature of permit issuer.

.7 Name of worker to which the permit is issued.

.8 Permit validity period not to exceed 8 hours. Indicate start time/date and termination time/date.

.9 Worker's signature with time/date of hot work completion.

.10 Stipulated time period of safety watch.

.11 Fire Safety Watcher's signature with

time/date.

.2 Permit to be typewritten form. Industry Standard forms shall only be used if all data specified above is included on form.

.3 Each Hot Work Permit to be completed in full, signed and returned to Contractor's Superintendent for safe keeping on site.

1.10 FIRE PROTECTION AND ALARM SYSTEMS

.1 Fire protection and alarm systems shall not be:
.1 Obstructed.
.2 Shut-off, unless approved by Departmental Representative.
.3 Left inactive at the end of a working day or shift.

.2 Do not use fire hydrants, standpipes and hose systems for purposes other than fire fighting.

.3 Costs incurred, from the fire department, Facility owner and tenants, resulting from negligently setting off false alarms will be charged to the Contractor in the form of financial progress payment reductions and holdback assessments against the Contract.

1.11 DOCUMENTS ON SITE

.1 Keep Hot Work Permits and Hazard assessment documentation on site for duration of Work.

.2 Upon request, make available to Departmental Representative or to authorized safety Representative for inspection.

1.1 SECTION INCLUDES

.1 Procedures to isolate and lockout electrical facility and other equipment from energy sources.

1.2 RELATED WORK

.1 Section 01 35 28: Health and Safety

1.3 REFERENCES

.1 CSA C22.1-06 - Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations.

.2 CAN/CSA C22.3 No.1-06 - Overhead Systems.

.3 CSA C22.3 No.7-06 - Underground Systems.

.4 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.

1.4 DEFINITIONS

.1 Electrical Facility: means any system, equipment, device, apparatus, wiring, conductor, assembly or part thereof that is used for the generation, transformation, transmission, distribution, storage, control, measurement or utilization of electrical energy, and that has an amperage and voltage that is dangerous to persons.

.2 Guarantee of Isolation: means a guarantee by a competent person in control or in charge that a particular facility or equipment has been isolated.

.3 De-energize: in the electrical sense, that a piece of equipment is isolated and grounded, e.g. if the equipment is not grounded, it cannot be considered de-energized (DEAD).

.4 Guarded: means that an equipment or facility is covered, shielded, fenced, enclosed,

inaccessible by location, or otherwise protected in a manner that, to the extent that is reasonably practicable, will prevent or reduce danger to any person who might touch or go near such item.

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

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

1.5 COMPLIANCE REQUIREMENTS

.1 Comply with the following in regards to isolation and lockout of electrical facilities and equipment:
.1 Canadian Electrical Code
.2 Federal and Provincial Occupational Health and Safety Acts and Regulations.
.3 Regulations and code of practice as applicable to mechanical equipment or other machinery being de-energized.
.4 Procedures specified herein.

.2 In event of conflict between any provisions of above authorities the most stringent provision will apply.

1.6 SUBMITTALS

.1 Submit copy of lockout procedures, sample of lockout permit and lockout tags proposed for use in accordance with Section 01 33 00. , Submit within 14 calendar days of acceptance of bid.

1.7 ISOLATION OF EXISTING SERVICES

.1 Obtain Departmental Representative's written authorization prior to working on existing live

or active electrical facilities and equipment and before proceeding with isolation of such item.

.2 To obtain authorization, submit to Departmental Representative the following documentation:
.1 Written request to isolate the particular service or facility and;
.2 Copy of Contractor's Lockout Procedures.

.3 Make a Request for Isolation for each event, unless directed otherwise by Departmental Representative, as follows:
.1 Fill-out standard form in current use at the Facility as provided by Departmental Representative or;
.2 Where no form exist, make written request indicating:
.1 The equipment, system or service to be isolated and its location;
.2 Duration of isolation period (i.e.: start time & date and completion time & date).
.3 Voltage of service feed to system or equipment being isolated.
.4 Name of person making the request.

.4 Do not proceed with isolation until receipt of written notification from Departmental Representative granting the Isolation Request and authorization to proceed with the work.
.1 Note that Departmental Representative may designate another person at the Facility being authorized to grant the Isolation Request.

.5 Conduct safe, orderly shutdown of equipment or facility. De-energize, isolate and lockout power and other sources of energy feeding the equipment or facility.

.6 Determine in advance, as much as possible, in cooperation with the Departmental Representative, the type and frequency of situations which will require isolation of

existing services.

.7 Plan and schedule shut down of existing services in consultation with the Departmental Representative and the Facility Manager. Minimize impact and downtime of Facility operations. Follow Departmental Representative's directives in this regard.

.8 Conduct hazard assessment as part of the process in accordance with health and safety requirements specified Section 01 35 28.

1.8 LOCKOUTS

.1 De-energize, isolate and lockout electrical facility, mechanical equipment and machinery from all potential sources of energy prior to working on such items.

.2 Develop and implement clear and specific lockout procedures to be followed as part of the Work.

.3 Prepare typed written Lockout Procedures describing safe work practices, procedures, worker responsibilities and sequence of activities to be followed on site by workforce to safely isolate an active piece of equipment or electrical facility and effectively lockout and tagout it's sources of energy.

.4 Include as part of the Lockout Procedures a system of lockout permits managed by Contractor's Superintendent or other qualified person designated by him/her as being "in-charge" at the site.

.1 A lockout permit shall be issued to specific worker providing a Guarantee of Isolation before each event when work must be performed on a live equipment or electrical facility.

.2 Duties of person managing the permit system to include:

.1 Issuance of permits and lockout tags to workers.

.2 Determining permit duration.

.3 Maintaining record of permits and tags issued.

.4 Making a Request for Isolation to Departmental Representative when required as specified above.
.5 Designating a Safety Watcher, when one is required based on type of work.
.6 Ensuring equipment or facility has been properly isolated.
.7 Collecting and safekeeping lockout tags returned by workers as a record of the event.

.5 Clearly establish, describe and allocate responsibilities of:
.1 Workers.
.2 Person managing the lockout permit system.
.3 Safety Watcher.
.4 Subcontractor(s) and General Contractor.

.6 Generic procedures, if used, must be edited and supplemented with pertinent information to reflect specific project requirements.
.1 Incorporate site specific rules and procedures in force at site as provided by Facility Manager through the Departmental Representative.
.2 Clearly label the document as being the Lockout procedures applicable to work of this contract.

.7 Use energy isolation lockout devices specifically designed and appropriate for type of facility or equipment being locked out.

.8 Use industry standard lockout tags.

.9 Provide appropriate safety grounding and guards as required.

1.9 CONFORMANCE

.1 Brief all workers and subcontractors on requirements of this section. Stringently enforce use and compliance.

1.10 DOCUMENTS ON SITE

.1 Post Lockout Procedures on site in common location for viewing by workers.

.2 Keep copies of Request for Isolation forms and lockout permits and tags issued to workers on site for full duration of Work.

.3 Upon request, make available to Departmental Representative or to authorized safety Representative for inspection.

1.1 RELATED WORK

.1 Section 01 35 24: Special Procedures on Fire Safety Requirements.

.2 Section 01 35 25: Special Procedures on Lockout Requirements.

1.2 DEFINITIONS

.1 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.

.2 Competent Person: means a person who is:
.1 Qualified by virtue of personal knowledge, training and experience to perform assigned work in a manner that will ensure the health and safety of persons in the workplace, and;
.2 Knowledgeable about the provisions of occupational health and safety statutes and regulations that apply to the Work and;
.3 Knowledgeable about potential or actual danger to health or safety associated with the Work.

.3 Medical Aid Injury: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.

.4 PPE: personal protective equipment

.5 Work Site: where used in this section shall mean areas, located at the premises where Work is undertaken, used by Contractor to perform all of the activities associated with the performance of the Work.

1.3 SUBMITTALS

.1 Make submittals in accordance with Section 01 33 00.

.2 Submit site-specific Health and Safety Plan prior to commencement of Work.

.1 Submit within 15 work days of notification of Bid Acceptance. Provide 3 copies.
.2 Departmental Representative will review Health and Safety Plan and provide comments.
.3 Revise the Plan as appropriate and resubmit within 10 work days after receipt of comments.
.4 Departmental Representative's review and comments made of the Plan shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.
.5 Submit revisions and updates made to the Plan during the course of Work.

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

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

.5 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labour organization.
.1 Submit update of Letter of Good Standing whenever expiration date occurs during the period of Work.

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

.7 Submit copies of incident reports.

.8 Submit WHMIS MSDS - Material Safety Data Sheets.

1.4 COMPLIANCE REQUIREMENTS

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

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

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

.2 COSH can be viewed at: www.http://laws.justice.gc.ca/eng/SOR-86-304/ n e .html

.3 A copy may be obtained at: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: (819) 956-4800 (1-800-635-7943) Publication No. L31-85/2000 E or F)

.3 Observe construction safety measures of:

.1 Part 8 of National Building Code

.2 Municipal by-laws and ordinances.

.4 In case of conflict or discrepancy between above specified requirements, the more stringent shall apply.

.5 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter in Good Standing.

.6 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.5 RESPONSIBILITY

.1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons and environment adjacent to the site to extent that they may be affected by conduct of Work.

.2 Comply with and enforce compliance by all workers, sub-contractors and other persons granted access to Work Site with safety requirements of Contract Documents, applicable federal, provincial, and local by-laws, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.6 SITE CONTROL AND ACCESS

.1 Control the Work and entry points to Work Site. Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.

.1 Departmental Representative will provide names of those persons authorized by Departmental Representative to enter onto Work Site and will ensure that such authorized persons have the required knowledge and training on Health and Safety pertinent to their reason for being at the site, however, Contractor remains responsible for the health and safety of authorized persons while at the Work Site.

.2 Isolate Work Site from other areas of the premises by use of appropriate means.

.1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment. See Section 01 50 00 for minimum acceptable requirements.

.2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.

.3 Use professionally made signs with bilingual message in the 2 official languages or international known graphic symbols.

.3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.

.4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection

authorities who require access to conduct tests or perform inspections.

.5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm. Provide security guard where adequate protection cannot be achieved by other means.

1.7 PROTECTION

.1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.

.2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

1.8 FILING OF NOTICE

.1 File Notice of Project with pertinent provincial health and safety authorities prior to beginning of Work.
.1 Departmental Representative will assist in locating address if needed.

1.9 PERMITS

.1 Post permits, licenses and compliance certificates, specified in section 01 10 10, at Work Site.

.2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out applicable portion of work.

1.10 HAZARD ASSESSMENTS

.1 Perform site specific health and safety hazard assessment of the Work and its site.

.2 Carryout initial assessment prior to commencement of Work with further assessments as needed during progress of work, including when new trades and subcontractors arrive on site.

.3 Record results and address in Health and Safety Plan.

.4 Keep documentation on site for entire duration of the Work.

1.11 PROJECT/SITE CONDITIONS

.1 Following are potential health, environmental and safety hazards at the site for which Work may involve contact with:

.1 Existing hazardous and controlled products stored on site:

.1 There are known safety hazards specifically due to products stored on site identified in Appendix B - LVM Maritime Testing Report dated January 2013. Containers of potentially hazardous materials are stored in Rooms 101 and 104. The containers include paint cans, bottles of bleach and other cleaners, cans of spray paint and other aerosols, and pails of cutting oils. The material is to be handled to prevent direct human contact, and should be collected in puncture proof containers. Proper personal protective equipment should be used by any workers undertaking this removal (coveralls, safety boots, safety glass, hard hat, leather gloves, mask, etc.). The Contractor shall conduct a detailed site specific safety assessment and prepare a site specific Health & Safety plan for the work.

.2 Approximately three cubic metres of coal is present in the basement of Building No. 6. Personal Protective Equipment is required including but not limited to:

gloves, long sleeves, disposable suit or encapsulated suit, respirators and possibly the need to ventilate the space. Tools used have to be non sparking, and the Contractor shall dampen the area with water to stop dust from becoming airborne. The coat shall be disposed of at an approved Regional Solid Waste Commission, whom will test the temperature of the coal before accepting the material.

.3 Rodent nest and bird droppings were observed throughout the building. Proper PPE is required, such as, but not limited to: gloves, long sleeves, disposable suit, HEPA respirators. Dampening the area to reduce the risk of contaminates from being airborne, and proper disposal location once all is bagged and tagged, as well as proper hygiene methods to be used.

.2 Existing hazardous or contaminated building materials (See Appendix B - LVM Maritime Testing - Hazardous Building Materials Survey, Agriculture and Agri-food Canada, Building 6 - Potato Research Centre, 850 Lincoln Road, Fredericton, N. B., dated January 2013, and Appendix C - Agriculture and Agri-food Canada, Fredericton Potato Research Centre, Asbestos Management Plan, dated March 2007).

.1 Two PCB - containing lamp ballasts are present in Room 106. These and any other encountered must be removed prior to the building demolition, and must be disposed of with an approved hazardous waste disposal contractor.

Proper PPE is required including but not limited to: leather gloves, long sleeves, disposable suit, hard hat, steel toe boots, safety glasses.

.2 All paint materials, with the exception of the white paint on the plaster walls in the stairwell leading to the attic, exceed the federal Surface Coating Materials Regulation for lead and therefore, proper safety precautions, including appropriate respirators, disposal suits and dust suppression, must

be included in the Health and Safety Plan. Please see Appendix B - LVM Report and Section 02 85 13 - Lead Containing Materials Abatement.

.3 Asbestos is found throughout the building and is classified as a hazardous material under the Transportation of Dangerous Good Act (TDGA) and under the New Brunswick Occupational Health and Safety Act, Regulation 92-106. Asbestos waste must be manifested as a dangerous good during transport and must be disposed of at a provincial engineered sanitary landfill. Please refer to Sections 02 81 01 - Hazardous Materials, 02 82 00.02 - Asbestos Abatement - Intermediate Precautions, Appendix B. Remove and properly dispose of prior to demolition of work at a licensed asbestos disposal facility, using contractors qualified (or certified) for asbestos abatement work. Waste manifests must be provided to the Departmental Representative.

.4 Boiler Tank: A boiler tank is located in the basement of Building 6 and must be disposed of in accordance with Section 33 56 13 - Boiler Tank. Any product remaining in the tank and associated lines will require proper disposal according to provincial and federal regulations for metals and asbestos. Proper PPE is required including but not limited to: Safety boots, safety glasses, hard hat, ventilation, dust suppression, etc.

.2 Demolition of Structure: refer to Section 02 41 13 - Structure Demolition, sub-section 1.9 Submittals.

.3 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.

.4 Include above items in the hazard assessment of the Work.

.5 MSDS Data sheets of pertinent hazardous and controlled products stored on site can be obtained from Departmental Representative.

1.12 MEETINGS

.1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work, at time, date and location determined by Departmental Representative. Ensure attendance of:

.1 Superintendent of Work
.2 Designated Health & Safety Site Representative
.3 Subcontractors

.2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.

.3 Keep documents on site.

1.13 HEALTH AND SAFETY PLAN

.1 Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.

.2 Health and Safety Plan shall include the following components:

.1 List of health risks and safety hazards identified by hazard assessment.
.2 Control measures used to mitigate risks and hazards identified.
.3 On-site Contingency and Emergency Response Plan as specified below.
.4 On-site Communication Plan as specified below.
.5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
.6 Names, competence and reporting

relationship of other supervisory personnel used in the Work for occupational health and safety purposes.

.3 On-site Contingency and Emergency Response Plan shall include:

.1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.

.2 Evacuation Plan: site and floor plan layouts showing escape routes, marshalling areas. Details on alarm notification methods, fire drills, location of firefighting equipment and other related data.

.3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.

.4 Emergency Contacts: name and telephone number of officials from:

.1 General Contractor and subcontractors.

.2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.

.3 Local emergency resource organizations.

.5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.

.4 On-site Communication Plan:

.1 Procedures for sharing of work related safety information to workers and subcontractors, including emergency and evacuation measures.

.2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility users.

.5 Address all activities of the Work including those of subcontractors.

.6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new

trade or subcontractor arrive at Work Site.

.7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.

.8 Post copy of the Plan, and updates, prominently on Work Site.

1.14 SAFETY SUPERVISION

.1 Employ Health & Safety Site Representative responsible for daily supervision of health and safety of the Work.

.2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
.1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work
.2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
.3 Conduct site safety orientation session to persons granted access to Work Site.
.4 Ensure that persons allowed site access are knowledgeable and trained in health and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.
.5 Stop the Work as deemed necessary for reasons of health and safety.

.3 Health & Safety Site Representative must:
.1 Be qualified and competent person in occupational health and safety.
.2 Have site-related working experience specific to activities of the Work.
.3 Be on Work Site at all times during execution of the Work.

.4 All supervisory personnel assigned to the Work shall also be competent persons.

.5 Inspections:
.1 Conduct regularly scheduled safety inspections of the Work on a minimum bi-weekly basis. Record deficiencies and remedial action taken.
.2 Conduct Formal Inspections on a minimum monthly basis. Use standardized safety inspection forms. Distribute to subcontractors.
.3 Follow-up and ensure corrective measures are taken.

.6 Cooperate with Facility's Occupational Health and Safety representative should one be designated by Departmental Representative.

.7 Keep inspection reports and supervision related documentation on site.

1.15 TRAINING

.1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned task.

.2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.

.3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

1.16 MINIMUM SITE SAFETY RULES

.1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
.1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses and hearing protection.
.2 Immediately report unsafe condition at

site, near-miss accident, injury and damage.
.3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
.4 Obey warning signs and safety tags.

.2 Brief persons of disciplinary protocols to be taken for non compliance. Post rules on site.

1.17 CORRECTION OF NON-COMPLIANCE

.1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.

.2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.

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

1.18 INCIDENT REPORTING

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

.2 Submit report in writing.

1.19 HAZARDOUS PRODUCTS

.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).

.2 Keep MSDS data sheets for all products delivered to site.

.1 Post on site.
.2 Submit copy to Departmental Representative.

.3 For interior work in an occupied Facility, post additional copy in one or more publicly accessible locations.

1.20 BLASTING

.1 Blasting or other use of explosives is not permitted on site.

1.21 CONFINED SPACES

.1 Abide by occupational health and safety regulations regarding work in confined spaces.

.2 Obtain an Entry Permit in accordance with Part XI of the Canada Occupational Health and Safety Regulations for entry into an existing identified confined space located at the Facility or premises of Work.
.1 Obtain permit from Facility Manager
.2 Keep copy of permit issued.

.3 Safety for Inspectors:
.1 Provide PPE and training to Departmental Representative and other persons who require entry into confined space to perform inspections.
.2 Be responsible for efficacy of equipment and safety of persons during their entry and occupancy in the confined space.

1.22 SITE RECORDS

.1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.

.2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.

1.23 POSTING OF DOCUMENTS

.1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.

.2 Post other documents as specified herein, including:

.1 Site specific Health and Safety Plan

.2 WHMIS data sheets

1.1 RELATED WORK

.1 Waste Management and Disposal: Section 01 74 21.

1.2 DEFINITIONS

.1 Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.

1.3 FIRES

.1 Fires and burning of rubbish on site is not permitted.

1.4 HAZARDOUS MATERIAL HANDLING

.1 Store and handle hazardous materials in accordance with applicable federal and provincial laws, regulations, codes and guidelines. Store in location that will prevent spillage into the environment

.2 Label containers to WHMIS requirements and keep MSDS data sheets on site for all hazardous materials.

.3 Maintain inventory of hazardous materials and hazardous waste stored on site. List items by product name, quantity and date when storage began.

.4 Store and handle flammable and combustible materials in accordance with National Fire Code.

.5 Transport hazardous materials in accordance with federal Transportation of Dangerous Goods Regulations and applicable Provincial regulations.

1.5 DISPOSAL OF WASTES

.1 Do not bury rubbish and waste materials on site. Dispose in accordance with project waste management requirements specified in section

.2 Do not dispose of hazardous waste or volatile materials, such as mineral spirits, paints, thinners, oil or fuel into waterways, storm or sanitary sewers or waste landfill sites.

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

1.6 SITE AND PLANT PROTECTION

.1 Protect trees and plants on site and adjacent properties.
.1 NOTE: There are mature trees in the construction area that are to be maintained. They will be identified during the pre-tender site visit.

.2 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m.

.3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.

.4 Minimize stripping of topsoil and vegetation.

.5 Restrict tree removal to areas indicated or designated by Departmental Representative.

1.7 WORK ADJACENT TO WATERWAYS

.1 Do not operate construction equipment in waterways.

.2 Do not use waterway beds for borrow material without Departmental Representative's approval.

.3 Do not dump excavated fill, waste material or debris in waterways.

.4 At borrow sites, design and construct temporary crossings to minimize erosion to waterways in strict conformance with provincial, federal, environmental regulations.

.5 Do not skid logs or construction materials across waterways.

.6 Avoid indicated spawning beds when constructing temporary crossings of waterways.

.7 Do not refuel any type of equipment within 100 meters of a water body. Maintain equipment in good working condition with no fluid leaks, loose hoses or fittings.

1.8 POLLUTION CONTROL

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

.2 Control emissions from equipment and plant to local authorities emission requirements.

.3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads and around entire construction site.

.4 Have appropriate emergency spill response equipment and rapid clean-up kit on site located adjacent to hazardous materials storage area. Provide personal protective equipment required for clean-up.

.5 Report, spills of petroleum and other hazardous materials as well as accidents having potential of polluting the environment to Federal and Provincial Department of the Environment.

.1 Notify Departmental Representative and

submit a written spill report to Departmental Representative within 24 hours of occurrence.

1.1 SECTION INCLUDES

.1 Requirements for waste management during construction operations.

1.2 RELATED SECTIONS

.1 Section 01 35 43: Environmental Procedures

.2 Section 01 45 00: Quality Control

.3 Section 01 78 80: Closeout Submittals

.4 Section 02 41 13: Structure Demolition

.5 Section 02 82 00.02: Asbestos Abatement - Intermediate Precautions

.6 Section 33 56 13: Boiler

1.3 PRECEDENCE

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

1.4 DEFINITIONS

.1 Waste: Non-hazardous solid material generated during the construction, demolition, or renovation of a structure including bedrock and sub-grade material.

.2 Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

.3 Hazardous Waste: Hazardous waste as defined by applicable Federal, Provincial and local regulations.

1.5 DOCUMENTS

.1 Not Used

1.6 QUALITY ASSURANCE

.1 Waste, garbage and hazardous waste shall be shipped to landfill site licensed by the Province of New Brunswick to receive the material.

.2 Hazardous waste due to lead contamination and asbestos shall be shipped to an out of province and/or country licensed to receive the material.

1.7 SITE VISIT

.1 Pre-tender site visit: Walk-through of project site prior to completion of tender submission is highly recommended. Date, time and location to be arranged by Departmental Representative.

1.8 USE OF SITE AND FACILITIES

.1 Provide temporary security measures approved by Departmental Representative.

1.9 PRECONSTRUCTION MEETING

.1 After award of Contract and prior to the commencement of the work schedule, conduct a meeting to inform Departmental Representative of waste management and disposal.

1.10 SUBMITTALS

.1 Not Used

1.11 SCHEDULING

.1 Coordinate work with other activities at site to ensure timely and orderly progress of work.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 SOLID WASTE MANAGEMENT

.1 Recycling/Reuse: Departmental Representative to approve any such initiatives proposed by Contractor in writing.

.2 Handling:

.1 Hazardous Waste and Hazardous Materials:

Handle in accordance with applicable regulations.

.2 Composting not permitted on site.

3.2 APPLICATION

.1 Handle waste materials in accordance with appropriate regulations and codes.

3.3 CLEANING

.1 Remove tools and waste materials on completion of work, and leave work area in clean and orderly condition.

.2 Clean-up work area as work progresses.

3.4 PROVINCIAL GOVERNMENTAL DEPARTMENTS CHIEF RESPONSIBILITY FOR THE ENVIRONMENT

.1 Handle waste materials in accordance with appropriate regulations and codes of the New Brunswick Department of Environment.

PART 1 - GENERAL

1.1 RELATED SECTIONS

.1 Not Used.

1.2 REFERENCES AND CODES

.1 Perform Work in accordance with National Building Code of Canada (NBC) including amendments up to tender closing date 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.

1.3 HAZARDOUS MATERIAL DISCOVERY

.1 Asbestos: demolition of spray or trowel-applied asbestos or asbestos containing material is hazardous to health. Stop work immediately when material resembling spray or trowel-applied asbestos is encountered or suspected during demolition work. Notify Departmental Representative.

1.4 BUILDING SMOKING ENVIRONMENT

.1 Comply with smoking restrictions and municipal by-laws.

1.5 NATIONAL PARKS ACT

.1 Not Used.

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 RELATED SECTIONS

.1 Not Used.

1.2 REFERENCES

.1 Not Used.

1.3 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 will order 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.

1.4 INDEPENDENT INSPECTION AGENCIES

.1 Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work.

.1 Air monitoring during asbestos abatement/removal and led paint removal will be done by an independent testing/inspection agency hired and paid for by the owner. It is the

responsibility of the Contractor to notify the Departmental Representative 48 hours prior to removal start up. Cost for delays resulting in tests results is to be included in the lump sum bid price for the work.

.2 Provide equipment required 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.

1.5 ACCESS TO WORK

.1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.

.2 Co-operate to provide reasonable facilities for such access.

1.6 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 orderly sequence to not cause delays 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.

1.7 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 Make good other Contractor's work damaged by such removals or replacements promptly.

.3 If in opinion of Departmental Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will 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.

PART 2 - PRODUCTS

2.1 NOT USED

.1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

.1 Not Used.

1.1 SITE ACCESS AND PARKING

.1 The Departmental Representative will designate Contractor's access to project site as well as parking facilities for equipment and workers.

.2 The Contractor is advised that while parking facilities for his workers and subcontractors will be on property, such parking facilities may be remote from the actual site of the work. In any case, follow all instructions from the Departmental Representative in regards to parking facilities.

.3 Parking facilities at site is limited and cannot be used by Contractor. Make arrangements elsewhere for Contractor's vehicles including those of subcontractors and workers.

.4 Build and maintain temporary access roads and provide snow removal and dust control during period of work.

1.2 CONTRACTOR'S SITE OFFICE

.1 Be responsible for and provide own site office, if required, including electricity, heat, lights and telephone. Locate site office as directed by Departmental Representative.

1.3 MATERIAL STORAGE

.1 Locate site storage trailers where directed by Departmental Representative or assigned to at start-up meeting. Observe work area restrictions. Place in location of least interference with existing Facility operations.

.2 Material storage space on site is limited.

1.4 SANITARY FACILITIES

.1 Contractor to provide sanitary facilities for work force in accordance with governing regulations and ordinances. No use of facilities on site is permitted.

1.5 POWER

.1 Arrange, pay for and maintain temporary electrical power supply in accordance with governing regulations and ordinances, if necessary.

.2 Supply and install all temporary facilities for power such as pole lines, meter socket, underground cables, etc...as required and to approval of local power supply authority, if necessary.

1.6 WATER SUPPLY

.1 Arrange, pay for and maintain temporary water supply in accordance with governing regulations and ordinances, if necessary.

1.7 REMOVAL OF TEMPORARY FACILITIES

.1 Remove temporary facilities from site when directed by Departmental Representative at no additional cost.

PART 1 - GENERAL

1.1 INSTALLATION AND REMOVAL	.1	Provide temporary utilities controls in order to execute work expeditiously.
	.2	Remove from site all such work after use.
1.2 DEWATERING	.1	Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.
1.3 WATER SUPPLY	.1	Contractor will arrange and pay for supply of water.
1.4 TEMPORARY POWER AND LIGHT	.1	Contractor to provide and pay for temporary power during construction for temporary lighting and operating of power tools, if required.
1.5 FIRE PROTECTION	.1	Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
	.2	Burning rubbish and construction waste materials is not permitted on site.
1.6 CONTRACTOR'S SITE OFFICE	.1	Be responsible for payment and provide own site office, if required, including electricity, heat, lights and telephone. Locate site office as directed by Departmental Representative.

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 RELATED WORK

.1 Temporary Facilities: Section 01 50 00

.2 Special Procedures on Fire Safety Requirements: Section 01 35 24

.3 Special Procedures on Lockout Requirements: Section 01 35 25

.4 Health and Safety: Section 01 35 28

1.2 GENERAL

.1 Scaffolding shall be an engineered system type.

.2 Supply, erect and maintain scaffolding as required for the project.

.3 All scaffolding shall be inspected by a competent person each day prior to use, for defects, damage, deterioration or loosening that may affect its strength and if such defect, damage, deterioration or loosening is found, the scaffold shall not be used until repaired or, where necessary, replaced.

.4 Make all required adjustments; tighten all fittings.

.5 The erection and dismantling of all scaffolding shall be supervised by a competent person.

.6 Provide new ladders and turn over to Departmental Representative.

1.3 CODES AND STANDARDS

.1 Design, erect and maintain scaffolding in accordance with the following codes and standards:

.1 CAN/CSA-S269.2-M87, Access Scaffolding for Construction Purposes.

.2 The 2010 National Building Code.

.3 The Canada Labour Code Part II.
.4 Provincial Worker's Compensation Board.
.5 The New Brunswick Occupational Health and Safety Act 91-191.
.6 The New Brunswick Construction Safety Association.

.2 Where codes and standards conflict, the most stringent shall apply.

1.4 SCAFFOLDING DESIGN

.1 Scaffolding shall be purpose-made, demountable steel scaffolding designed by a Professional Engineer registered in the Province of New Brunswick whose seal must be placed on all drawings relating to scaffolding and prior to work commencing.

.2 The scaffolding shall be designed for a specific number of levels fully loaded and for all applicable dead and live loads and wind loads in accordance with the specified codes and standards. Where construction occurs under winter conditions, the scaffolding shall be fully enclosed type providing weather protection for the work surfaces and protection for pedestrians below.

.3 Where scaffolding is to be erected over public sidewalks and any other areas subject to pedestrian traffic, then the scaffolding shall be enclosed to protect such pedestrian traffic from the damage of falling building materials, tools, construction debris, etc. Enclosed areas of scaffolding shall be clearly marked, free of any protruding scaffolding components, sharp edges, wood or metal slivers, protruding bolts, etc.

.4 Scaffolding design shall include all bracing, guardrails, toe boards, platforms, access stairs, ladders and scaffolding enclosure system.

.5 Since the time of year and resultant cold temperatures require that scaffolding, or portions thereof, be enclosed, the design shall

include the extra loads imposed on the scaffolding by such enclosures.

.6 Set up and carry out a program of daily scaffolding safety inspections for the entire period that the scaffolding is in place and in use.

.7 Take any and all necessary action to ensure that power lines are shut off or removed and relocated to ensure an adequate and worker-safe separation between scaffolding and power lines. This work to be carried out by the utility company concerned. Make arrangements for power disconnection with the utility company and pay for all costs involved.

1.5 SUPPORT CONDITIONS

.1 Ground support conditions must be determined by the Departmental Representative referred to in Clause 1.4.1 above.

.2 Where the existing structure is to be used for support, the design engineer for the scaffolding must verify that the building can safely support the loads.

1.6 DRAWINGS

.1 Before erection of the scaffolding, the Contractor shall prepare and submit scaffolding design and erection drawings for review by the Departmental Representative. All design and erection drawings shall be signed by the Professional Engineer referred to in Clause 1.4.1 above.

.2 The scaffolding erection drawings shall show general design criteria for:

.1 Dead and live loads on platforms, stairs and guardrails.

.2 Wind loads on scaffold and scaffold enclosure.

.3 Reference specifications, materials and sizes for structural members.

.4 Main dimensions of scaffold.

.5 Locations of tie backs and bracing.

.6 Guardrails.

.7 Boards.
.8 Stairs.
.9 If necessary, shoring or strengthening of existing building.
.10 Connection details.
.11 Safety lines, hooks and eyes.

.3 Include with submission, design notes and calculations in connection with Clauses 1.5.1 and 1.5.2 above.

1.7 EXISTING BUILDINGS

.1 Walk through and entrance ways through scaffolding are required at all times at existing sidewalks and building entrances and exits. Install two (2) layers of wooden planks and tarps above these entrances for protection. Provide lighting at all times in the walkway space with adequate light levels to the approval of the Departmental Representative. Prevent public access to levels of scaffold above walkway at entrances/exits. Provide doors with locks and keys, if necessary, to secure area.

PART 1 - GENERAL

1.1 RELATED SECTIONS	.1	Section 01 33 00: Submittal Procedures.
1.2 REFERENCES	.1	Not Used.
1.3 INSTALLATION AND REMOVAL	.1	Submit a temporary barriers and enclosures plan to the Departmental Representative.
	.2	Provide temporary controls in order to execute work expeditiously.
	.3	Remove from site all such work after use.
1.4 HOARDING	.1	Not Used.
1.5 GUARD RAILS AND BARRICADES	.1	Provide secure barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs, and.
	.2	Provide as required by governing authorities.
1.6 WEATHER ENCLOSURES	.1	Not Used.

1.7 DUST TIGHT SCREENS	.1	Not Used.
1.8 ACCESS TO SITE	.1	Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.
1.9 PUBLIC TRAFFIC FLOW	.1	Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.
1.10 FIRE ROUTES	.1	Maintain access to property including overhead clearances for use by emergency response vehicles.
1.11 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY	.1	Protect surrounding private and public property from damage during performance of Work.
	.2	Be responsible for damage incurred.
1.12 PROTECTION OF BUILDING FINISHES	.1	Not Used.
1.13 WASTE MANAGEMENT AND DISPOSAL	.1	Not Used.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not Used.

1.1 GENERAL

.1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

.2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

.3 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.

1.2 MATERIALS

.1 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

1.3 CLEANING DURING CONSTRUCTION

.1 Maintain work site work areas in a tidy condition, free from accumulations of waste material and debris. Clean areas on a daily basis.

.2 Provide on-site containers for collection of waste materials and debris.

.3 Use separate collection bins, clearly marked as to purpose, for source separation and recycling of waste and debris in accordance with waste management requirements specified.

.4 Remove waste materials, and debris from site on a daily minimum weekly basis.

.5 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

.6 Remove snow and ice from access doors used by workforce

1.4 FINAL CLEANING

.1 In preparation for acceptance of the completed work perform final cleaning.

1.1 WASTE MANAGEMENT GOALS

.1 Safely remove hazardous materials and the boiler, prior to undertaking deconstruction/demolition.

.2 Preserve environment and prevent pollution and environment damage.

.3 Reinstate site as outlined within.

1.2 DEFINITIONS

.1 Deconstruction: systematic dismantling of structure in a manner that achieves safe removal/disposal of hazardous materials.

.2 Demolition: rapid destruction of structure with or without prior removal of hazardous materials.

.3 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, including but not limited to: asbestos-containing materials, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health, well being or environment if handled improperly.

.4 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment or disposal.

.5 Inert Fill: inert waste - exclusively asphalt and concrete.

.6 Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.

1.3 REFERENCE STANDARDS

.1 Canadian Standards Association (CSA International):
.1 CSA S350-R2003, Code of Practice for Safety in Demolition of Structures.

.2 Federal Legislation:
.1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
.2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
.3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.

.3 National Building Code 2010, Part 8 - Safety Measures at Construction and Demolition Sites.

1.4 DOCUMENTS

.1 Maintain at job site, one copy of following documents:
.1 Hazardous Building Materials Survey - Building No. 6, Fredericton Potato Research Centre.

1.5 QUALITY ASSURANCE

.1 Regulatory Requirements:
.1 Ensure work is performed in compliance with CEPA, CEAA, TDGA and applicable provincial regulations.
.2 Site Meetings:
.1 Arrange for site visit with Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of work.
.2 Hold project meetings every 2 weeks.
.3 Ensure key personnel and project manager attend.
.4 Health and Safety:
.1 Do construction occupational health and safety in accordance with Section 01 35 28.06 - Health and Safety Requirements.

1.6 SUBMITTALS

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

1.7 STORAGE, HANDLING AND PROTECTION

.1 Unless specified otherwise, materials for removal become Contractor's property.

.2 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.

1.8 DISPOSAL OF WASTES

.1 Do not bury rubbish or waste materials.

.2 Do not dispose of any wastes into waterways, storm, or sanitary sewers.

.3 Remove materials from deconstruction as deconstruction/disassembly work progresses.

.4 Prepare project summary no later than 5 days after hazardous material removal has been done, to verify destination and quantities of designated hazardous wastes, on a material-by-material basis, as identified in the report entitled: Hazardous Building Materials Survey - Building No. 6, Fredericton Potato Research Centre.

1.9 DELIVERY, STORAGE AND HANDLING

.1 Transport hazardous materials and wastes, in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.

.1 Comply with applicable federal, provincial and municipal laws and regulations for generators of hazardous waste.

.2 Use licensed carrier authorized by provincial authorities to accept subject material.

.3 Before shipping material obtain written notice from intended hazardous waste treatment or disposal facility it will accept material and it is licensed to accept this material. Provide photocopy of notice to the Departmental Representative.

.4 Label container(s) with legible, visible safety marks as prescribed by federal and provincial regulations.

.5 Only trained personnel handle, offer for transport, or transport dangerous goods.
.6 Provide photocopy of shipping documents and waste manifests to the Departmental Representative.
.7 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide photocopy of completed manifest to Departmental Representative.

1.10 USE OF SITE AND FACILITIES

.1 Execute work with least possible interference or disturbance to normal use of premises.

1.11 ENVIRONMENTAL REQUIREMENTS

.1 Do work in accordance with Section 01 35 43 - Environmental Procedures.

PART 2 PRODUCTS

2.1 MATERIALS

.1 Common Fill:
.1 Common fill shall consist of soil and/or rock free from roots, stumps, cinders, ashes, sods, refuse and/or other deleterious substances and be unfrozen.
.2 Common fill shall be approved by the Departmental Representative prior to hauling to site.
.3 Common fill shall be well graded and have a maximum particle size of 150 mm with no more than 20% passing the 0.075 mm sieve.

.2 Oversize rocks in the common fill material will be removed from the work.

PART 3 - EXECUTION

3.1 APPLICATION

.1 Complete removal, transportation and storage or disposal of all hazardous materials identified in the Hazardous Materials Building Materials

Survey - Building No. 6, Fredericton Potato Research Centre, prior to undertaking any deconstruction/demolition activities.

.2 Complete removal, transportation and disposal of the boiler system prior to undertaking any deconstruction/demolition activities.

.3 Allow time for inspection of Building No. 6 by the Departmental Representative upon the completion of the removal of the hazardous materials and boiler system, prior to initiating the deconstruction/demolition activities.

.4 Complete the deconstruction/demolition of the building, including the concrete floor, foundation and footings.

3.2 REMOVAL OF HAZARDOUS MATERIALS

.1 Remove and appropriately dispose of the hazardous materials as described in the Hazardous Materials Building Materials Survey - Building No.6 Fredericton Potato Research Centre.

.2 Remove and package PCB lamps indicated in the LVM Survey (appendix B). To be disposed of with an approved hazardous waste disposal contractor, and disposed of at a registered depot.

.3 Remove and dispose of the Asbestos Containing Materials identified in the Hazardous Materials Survey (Appendix B, and C)- Building No. 6, Fredericton Potato Research Centre, in accordance with the recommended removal procedures and in accordance with all applicable regulations and codes of practice.

.5 Dispose of the Asbestos Containing Materials at an approved facility.

.6 Remove and dispose of Lead Containing Materials identified in Appendix B-LVM Maritime Testing-Hazardous Building Materials Survey, in accordance with the recommended removal procedures and in accordance with all applicable regulations, codes and practices.

3.3 REMOVAL OF THE EXISTING BOILER

.1 Remove the boiler in accordance with applicable standards and regulations.
.1 Disconnect or remove source of ignition from vicinity of the boiler.
.2 Use non-sparking tools and intrinsically safe electrical equipment.
.3 Smoking is not permitted.

.2 Dispose of boiler in accordance with local, provincial and federal regulations.

.4 Submit documentation to Departmental Representative indicating disposal in accordance with provincial and federal regulations.

3.4 BUILDING DECONSTRUCTION AND DEMOLITION

.1 Handle, transport and dispose of waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

.2 On-site sale of salvaged, reusable, recyclable, materials is not permitted.

.3 Ensure workers and subcontractors are trained to carry out work in accordance with appropriate deconstruction techniques.

.4 Deconstruct in accordance with CSA S350 and other applicable safety standards.

.5 Based on previous investigations, hydrocarbon contamination at the project site is not anticipated. Stop work and contact Departmental Representative immediately if there is evidence of hydrocarbon contamination.

3.5 CLEANING

.1 Remove tools and waste materials on completion of work, and leave work area in clean and orderly condition.

.2 Clean-up work area as work progresses.

3.6 SITE RESTORATION

.1 Common fill to be used as backfill to restore grades within the building area to match surrounding areas.

.2 Place and compact common fill material to 95% of the corrected maximum dry density as determined in accordance with ASTM D1557 (modified Proctor).

3.7 BACKFILLING

.1 Use imported common fill material to backfill open excavations associated with the site work and demolition.

.2 Any soils remove and previously stockpiled to uncover foundation components must be used as backfill material prior to the use of imported common fill.

.3 Do not proceed with backfilling operations until the Departmental Representative has inspected and approved the base of the excavation.

.4 Areas to be backfilled to be free from debris, snow, ice, water, and frozen ground.

.5 Do not use backfill material which is frozen or contains ice, snow or debris.

.6 Place backfill material in uniform layers not exceeding 300 mm in compacted thickness to grades indicated. Compact each layer before placing succeeding layer.

1.1 SECTION INCLUDES

.1 Administrative procedures preceeding inspection and acceptance of Work by Departmental Representative.

1.2 RELATED SECTIONS

.1 Section 01 78 00 - Closeout Submittals.

1.3 INSPECTION AND DECLARATION

.1 Contractor's Inspection: Coordinate and perform, in concert with subcontractors, an inspection and check of all Work. Identify and correct deficiencies, defects, repairs and perform outstanding items as required to complete work in conformance with Contract Documents.

.1 Notify Departmental Representative in writing when deficiencies from Contractor's inspection have been rectified and that Work is deemed to be complete and ready for Departmental Representative's inspection of the completed work.

.1 Submit color photographs of work; field drawings that supplies sufficient tie points to locate footprint of backfilled foundation; along with this written noficication to the Departmental Representative.

.2 Departmental Representative's Inspection: Accompany Departmental Representative during all substantial and final inspections of the Work.
.1 Address defects, faults and outstanding items of work identified by such inspections.
.2 Advise Departmental Representative when all deficiencies identified have been rectified. Submit color photographs of rectified work along with this written notification.

.3 Note that Departmental Representative will not issue a Certificate of Substantial Performance of the work until such time that Contractor performs following work and turns over the

specified documents:

.1 Project record as-built field sketch showing location of capped foundation of former building;

.2 Final Operations and Maintenance manuals;

.3 Maintenance materials, parts and tools;

.4 Compliance certificates from applicable authorities;

.5 Reports resulting from designated tests;

.6 Demonstration and training complete with user manuals;

.7 Manufacturer's Guarantee certificates.

.8 Testing, adjusting and balancing of equipment and systems complete with submission of test reports.

.9 Commissioning of equipment and systems specified.

.10 Color photographs depicting all aspects of work completed.

.11 Material Removal Log, and Waste Manifests.

.4 Correct all descrepancies before Departmental Representative will issue the Certificate of Completion.

1.1 SECTION INCLUDES

.1 Project Record Documents.

1.2 PROJECT RECORD DOCUMENTS

.1 Submit documentation as required under Section 01 74 21. This includes but is not limited to weigh bills, receipts or sale tickets.

1.3 AS-BUILT DOCUMENTS AND SAMPLES

.1 Maintain, in addition to requirements in General Conditions, at site, for Departmental Representative one record copy of:
.1 Specifications.
.2 Addenda.
.3 Change Orders and other modifications to Contract.
.4 Field test records.
.5 Inspection certificates.

.2 Store record documents and samples in field office apart from documents used for construction.
.1 Provide secure storage.

.3 Maintain record documents in clean, dry and legible condition.
.1 Do not use record documents for construction purposes.

.4 Keep record documents and samples available for inspection by Departmental Representative.

1.4 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

.1 Contractor to develop and submit field sketch that supplies sufficient tie points to locate the footprint of backfilled foundation. Contractor to stake corners of the foundation footprint.

.2 Record information concurrently with construction progress.
.1 Do not conceal work until required information is recorded.

.3 Provide digital photos, for site records.