1. EXAMINATION

   1. Throughout the project, examine the work of all trades and promptly notify the Consultant if any conditions do not or will not comply with the drawings and specifications.

2. SETTING OUT

   1. Locate and fix grid lines and locations of walls, partitions, shafts and all parts of the construction as work proceeds.

   2. Verify grades, lines, levels and dimensions indicated, particularly and report any errors or inconsistencies to the Consultant before commencing work. Confirm job dimensions at once to allow prompt checking of shop and other drawings.

   3. As work progresses, provide and maintain benchmarks at each floor, giving exact elevation of finished floor.

3. PROTECTION

   1. Conform to Ontario Building Code, 2012 latest edition, and The Construction Health and Safety Act, all as currently amended.

   2. Provide spare safety helmets for and enforce their use by Owner, Consultant, their representatives and any authorized visitors to site.

   3. Protect excavation, trenches, buildings and other structures from damage by rain, water, ground water, backing up of drains or sewers and other water, frost and all other weather conditions. Do not allow footings or slabs to be placed on frozen ground. Do not permit excavations to reach full depth indicated when freezing temperature may be expected unless footings or slabs can be placed immediately after excavation has been completed. Protect excavations from frost by placing of suitable approved insulating material to adequate depth, if placing of concrete is delayed and after placing of concrete until backfilling occurs or freezing conditions terminate. Provide necessary pumps (including spare pumps) and temporary drainage for keeping project free of water throughout construction period. Pump water to public sewers or ditches by approved means. Refer to soils report and storm water management report for details. Control grading around excavations to prevent surface water from draining into excavation and from damaging adjoining property.

   4. Protect building from movement and damage, especially during filling and compaction and until elements are securely anchored and cannot be damaged or moved by filling or compaction. Obtain approval of authorities having jurisdiction for such work and make changes as required by them.

   5. Provide temporary 6'-0" (1800 mm) high chain link fences complete with steel tubular top rail supports and steel posts, with chain link gates and locks to enclose construction area, and pavement protection as required for protection of public, and of public and private property and as required by law and by authorities having jurisdiction. Erect sturdy railings around shafts, stair wells and the like to protect workers and public from injury. Equip foregoing protection with warning lights and signs. Alter, remove and relocate or replace hoardings, barriers, and entrances therein as required by authorities having jurisdiction and by the work. Hazards requiring such protection shall be eliminated as soon as possible and temporary protection devices removed. Maintain fences, gates until construction is complete. Keep free from unauthorized signs.

   6. Provide and maintain in working order, adequate, temporary Canadian Underwriters labelled, chemical solution (soda acid) Class A.1, fire extinguishers and locate in prominent positions to approval of authorities having jurisdiction.

   7. Utilities and Services - Before starting the work contact the Public Utilities for location of underground services.

8. Protect adjacent completed soft and hard landscape from damage due to construction activities or access.

4. AS-BUILT DRAWINGS

1. Maintain as work progresses, accurate records of changes to the Drawings and of concealed services. Accurate locations, depth, size, and type of underground utilities shall be included in these record drawings. The Contractor will provide clear prints of the floor plans and site plan for making these recordings. As-built drawings will be reviewed at each site meeting and must be properly maintained to receive the Consultant's approval before the monthly certificate draw will be approved.

2. Keep a daily record showing progress of the work and all factors affecting the work, i.e., weather, strikes, accidents, shipping delay, etc.

3. The Contractor shall also supply as-built drawings in AutoCad 2014 (or later) by a professional drafting service. Approval shall be obtained by the Consultant for the professional drafting service.

4. Completed as-built drawings and instruction and warranty manuals shall be submitted prior to requesting substantial completion.

5. Provide 1 (one) hardcopy full sized drawing set, 1 electronic copy ACAD 2014 or later version and 1 electronic copy searchable PDF format at completion of the project.

5. FIELD OFFICE

1. Field Office: Contractor to provide field office at site for Contractor's and Consultants' use. Provide janitor service for periodic dusting, cleaning, and removal of rubbish. Include construction and operating hardware, with security locks, as required. Locate office where directed by the Consultant.

2. Storage Area: The Contractor to provide storage area at site for products and tools. Include construction and operating hardware, with security locks, as required. Separate storage for painter's materials and tools from other storage areas. Locate storage area where directed by the Consultant and provide security.

6. WASHROOM CONVENIENCES

1. The Contractor to provide washroom facilities as per the Construction Health and Safety Act for use of subcontractors and employees. Facilities shall be provided with a screen and contents shall be removed regularly during construction. Maintain it without offense to neighbourhood. At completion of building, washroom facilities and contents shall be removed, and the ground carefully levelled and cleared. Employees on work must avail themselves of this convenience. It shall be to the satisfaction of local Health Authority.

2. Use of permanent toilets is forbidden.

7. TEMPORARY DRAINS

1. Excavations and building site shall be kept free from water at all times by means of trenches to sewers or pits from which it shall be pumped away and disposed from the site.

8. TEMPORARY WATER SERVICE

1. The Contractor shall provide and pay for all temporary water and connections for water used for construction operations until the building is complete and turned over to the Owner. The Contractor will pay for the supply cost from the local municipality. Water for compaction and watering of sod shall be trucked to the site and paid by for the Contractor.

9. TEMPORARY TELEPHONE AND EMAIL

1. The Contractor shall provide and pay for a private telephone and Wi-fi Internet / Email Service at the place of work until their work is complete.

10. TEMPORARY ELECTRICAL SERVICE

1. The Contractor shall pay all temporary light and power necessary to the operations under this Contract, including all connections necessary to supply to the Trade Contractors on site. The Contractor will pay for the cost of electrical power supply from the local P.U.C. utility only.

2. A temporary generator is currently on site supplying power to the Mulock House. The rental agreement for this generator can be assumed under this contract to provide power for operations under this Contract, or the Contractor can provide an alternative power supply for operations under this Contract. Refer to electrical specifications.

11. TEMPORARY HEATING

1. Provide temporary heat, heating equipment, and shelter, to keep that work which requires protection from cold, adequately warm and sheltered from elements and to allow it to be done safely and well, maintaining minimum temperature of 16 degrees Celsius (60 degrees F.) when finishing is being done and when building is closed in, until completion of work. Provide heating for materials affected by cold, both in storage and during construction. Construction requiring heat shall be suitably enclosed.

2. Do not use salamanders. Use temporary heaters of forced warm air type, operated in well-ventilated location and vented to exterior, or radiant panel type. If used in areas of completed building, provide protection on floors and adjacent surfaces to prevent damage to floors and adjacent surfaces, particularly when re-fuelling.

3. Provide temporary heat for interior spaces to maintain a minimum temperature of 16 degrees Celsius (60 degrees F.) throughout the building at all times once the building is enclosed.

12. TEMPORARY USE OF PERMANENT HEATING SYSTEM

1. Permanent heating and ventilation system may be used for temporary heating and ventilation only if the Consultant gives their approval to do so in writing, and when piping is complete, all units are connected, all pumps and valves are installed and operating properly, all strainers are installed and permanent or temporary filters are installed, and entire system has been tested and is safe operating condition, and when no further shut-down of system will be necessary for future conditions.

2. Do not use air distribution system until permanent or temporary filters are in place. Filter air distribution system to prevent dirt and dust from entering units via return air. Keep unused ducts sealed to prevent entry of air. Replace or clean filters frequently during construction to minimize entry of dirt. Clean (if cleanable) and replace filters before turning over system to Owner.

3. Put system in charge of fully trained and experienced operator at all times. If required, operators shall be selected jointly by Owner and Contractor. Provide training of Owner's staff/employees if it is decided that they will operate the system. Operators shall qualify as set out in Operating Engineers Act, if applicable.

4. Clean, maintain and repair heating and ventilation system as require throughout its use during construction. Notify manufacturer and the Consultant immediately before turning over new heating equipment to Owner so that heating items may be checked for possible damage or contamination during temporary heating period. Make good damage to heating and air distribution equipment. Replace all worn parts and turn over system to Owner in clean, new

condition, operating with circulating water properly treated chemically.

5. Permission might be given by the Consultant in writing only upon 100% operation completeness of the systems. Neither the Owner nor the Consultant are under any obligation to grant permission to use permanent heating system during construction period.

13. TEMPORARY SERVICE ROADS

1. The Contractor shall construct and maintain in good condition, such temporary service roads, culverts that may be necessary to provide safe, convenient and adequate access for materials, and other supplies at all times while the Contractor is working on site, all to the approval of the Consultant. NOTE: The Contractor shall protect existing roads, sidewalks, curbs and provide mud mats to the satisfaction of the Authorities Having Jurisdiction and replace any that become damaged due to any operations under this contract.

14. STORAGE SHED

1. Provide and erect where directed, weathertight shed of suitable size, with loose plank floor at least 12" off ground for storage of cement and lime. Contractors and subcontractors shall provide their own workshops and storage sheds for entire length of construction. At no time may existing buildings or new additions be used for storage of materials.

15. DELIVERY AND STORAGE OF MATERIALS

1. Arrange for early deliveries necessary for execution of work without delay and have materials on job well in advance of the time it is needed.

2. Deliver, store and handle materials to exclude foreign material and prevent damage, soiling or breakage.

3. Materials to be stored on site, which need to be protected from weather shall be so protected.

4. Packaged materials shall be delivered in packages with manufacturer's seals and all labels intact.

16. BUILDING AND PREMISES

1. Owner reserves right to take over any completed portion prior to specified completion date, provided it does not affect completion of remaining work.

2. If Owner is forced to occupy building or parts thereof prior to completion, but after date of Substantial Performance, Contractor shall not be entitled to indemnity for interference with the performance of the work.

17. OWNERSHIP OF MATERIALS

1. All work or material delivered on the site or premises to form part of the works shall be considered the property of the Owner and shall not be removed without the consent of the Consultant, but the Contractor shall have the right to and shall remove the surplus materials after he has completed the work. If so directed by the Consultant, such surplus materials shall be removed at any time prior to the completion of the work.

2. All materials which are to be removed from the site and are not called for to be re-used or specifically called for in the specifications to be turned over to the Owner, shall become the property of the Contractor and shall be removed from the site.

18. DETAILS AND MEASUREMENTS

1. Ensure that necessary job dimensions are taken and trades are coordinated for the proper execution of the work. Assume complete responsibility for the accuracy and completeness of such

dimensions, and for co-ordination.

2. Verify that work, as it proceeds, is executed in accordance with dimensions and positions indicated which maintain levels and clearances to adjacent work, as set out by requirements of the drawings, and ensure that work installed in error is rectified before construction continues.

3. Check and verify dimensions referring to work and interfacing of services. Dimensions, when pertaining to work of other trades, shall be verified with trade concerned.

4. Do not scale directly from the drawings. If there is ambiguity or lack of information, immediately inform the Consultant and await his instructions before proceeding. Be fully responsible for rectifying, altering or redoing any work resulting from disregarding this clause.

5. All details and measurements of any work which is to fit or to conform with work installed shall be taken at the site.

6. Should revised drawings be issued after work has commenced, Contractor shall immediately return to the Consultant previous drawings which refer to said work. The Contractor will be held responsible for work being carried out in accordance with said revised drawings.

19. WORKMANSHIP

.1 Perform Work to equal or exceed minimum standards specified for materials, installation methods, workmanship and construction in the Ontario Building Code, except where additional or more stringent requirements are imposed by jurisdictional authorities, or by the Drawings, Specifications, specified reference standards, and other instructions issued in relation to the Contract Documents for this Project. In case of conflict or discrepancy, the more stringent shall apply.

.2 Workmanship shall be the best quality, executed by workers experienced and skilled in the respective duties for which they are employed. Immediately notify the Consultant if necessary, work is such as to make it impractical to produce required results. Any work which is not acceptable to the Owner or Consultant shall be immediately removed and replaced when and where directed. The expense of re-executing this work shall be paid by the Contractor.

.3 Where the Codes or this specification do not provide all information necessary for complete installation of an item, then the manufacturer's instructions for first quality workmanship shall be strictly complied with. Where reference is made to manufacturer's directions, instructions or specifications they shall include full information on storing, handling, preparing, mixing, installing, erecting, applying, or other matters concerning the materials pertinent to their use and their relationship to materials with which they are incorporated.

.4 These specifications are not intended as a detailed description of installation methods but serve to indicate particular requirements in the completed work.

.5 Wherever in the specifications a material or article is specified by name, there shall be no substitution for the material so specified unless approved in writing by the Consultant beforehand.

.6 Whenever an article or material is specified "or approved equal", it shall be understood that the written approval from the Consultant is required before any substitution is made. The responsibility of satisfying the Consultant whether or not the "equal" is acceptable, remains with the Contractor.

20. FROST PROTECTION

1. Provide proper frost protection, including heating for materials to ensure scheduling of work without delay.

2. Similar protection shall be given to work done.

3. Work or materials damaged by frost shall be replaced by Contractor.

4. Snow and ice shall not be allowed to remain on any part of structure, except finished roofs, and shall be removed by Contractor.

21. PROJECT MEETINGS

1. Arrange regular meetings at two-week intervals and notify the representatives of the Owner, Consultant, Engineer and each subcontractor concerned with the current progress.

2. Contact all subcontractors concerned at least 24 hours in advance and request their presence at job meeting.

3. Review approved progress schedule for rapid and efficient completion of work according to Contract requirements, with suppliers of materials and subcontractors.

4. Post and forward copies of progress schedule for advice of interested parties.

5. Record the minutes of each meeting and send copies to all attending and interested parties not later than two days after the meeting. In addition, send copies to the Consultant, Consultants and Owner. Contractor to provide updated change order register and shop drawing register attached to each record of minutes to indicate exactly what has been issued and the status of approvals and/or distribution.

6. Keep the Consultant informed of progress, delays and of potential delays during all stages of work to avoid delays.

22. BROKEN GLASS

1. Replace all broken, damaged or scratched glass and mirrors. Glass which has been broken, scratched or damaged in installation shall be replaced by installer.

23. TREE PROTECTION

1. Protect tops, trunks and roots of existing trees on project site that are to remain. Box, fence or otherwise protect trunks of existing trees which may be subject to construction damage before any work is started. Do not permit heavy equipment or stockpiles within branch spread. When approved, remove interfering branches without injury to trunks and cover scars with tree paint.

2. Wherever excavating is required within branch spread of trees that are to remain, do not cut tree roots, but tunnel or trench under or around roots by careful hand digging and without injury to roots.

24. PROGRESS SCHEDULE

1. Further to the General Conditions of the Contract, carefully prepare full progress schedules of the work in form to be mutually agreed upon by Contractor and the Consultant.

2. Prepare schedule immediately upon award of Contract and present three (3) copies to the Consultant within the time period noted in the General Conditions from date of Notice of Award.

25. MAINTENANCE MANUALS

1. As soon as possible and in no event later than request for substantial completion check and assemble in three ring binder(s), all shop drawings, all warranties and guarantees submitted by manufacturers, suppliers and subcontractors and as called for throughout Specifications. Assemble three copies of recommended operation and maintenance procedures (such as flooring, equipment, roofing). Present three matching binders to the Consultant for submission to Owner. Furnish a complete index in each binder listing its contents in detail and stamp and sign the cover page of each and every manual. Also ensure that the manuals are stamped and signed on the cover page by subcontractor submitting them.

2. Recommended maintenance procedures shall contain warnings concerning the use of maintenance materials or practices which might injure the product covered by the recommended maintenance procedure. Should any product be injured or damaged by faulty maintenance or practices not warned against in the maintenance manual, then the Contractor shall rectify such damage or injury.

3. Complete maintenance manuals shall be submitted prior to requesting release of Holdback.

26. CHECK FLOOR DRAINS

1. Just before acceptance of building by Owner, check floor drains and see that they are clean, clear and functioning properly.

27. FIRE PROTECTION AND ACCESS TO EQUIPMENT AND EXITS

1. Take necessary precautions to eliminate fire hazards and to prevent damage to work, equipment and other property both public and private having to do with the work. Inspect work of this contract at least once a week for this purpose.

2. Provide and maintain in working order suitable Underwriters' labelled fire extinguishers and locate in prominent positions, to approval of authorities.

3. When welding, brazing and performing any operation with an open flame, a portable fire extinguisher shall be kept within 10 feet (3000 mm) of the operator at all times.

4. Store and locate materials and equipment packed in cardboard cartons, wood crates and other combustible containers in orderly and accessible manner. Place approved types of fire fighting equipment in vicinity of materials or equipment packed in this type of crate or carton until permanent fire protection and equipment are available.

5. Store all rags and waste containing oil, grease or other flammable materials in an approved metal container and remove from the site at the end of each working day.

6. Only fire-resistant tarpaulins are permitted on site.

7. Locate temporary buildings and storage areas in relation to their hazards and probability of damage to existing buildings under construction. Unless constructed of non-combustible materials, wherever possible locate them at least 33 feet (10 m) away from buildings. If constructed of combustible materials separate these structures into small detached units.

8. Provide and maintain free access at all times from the street to fire hydrants and to outside connections for standpipes or other fire extinguishing equipment whether permanent or temporary. Do not place material or construction equipment within 10 feet (3 m) of hydrants or connection, nor between them and centre line of the street. Do not block fire access lane or streets.

   Maintain free access at all times to control valves and hose on fire lines within building and to all portable extinguishers.

9. Install fire doors and put into operating condition at the earliest possible time.

10. Comply with requirements of 01 35 29 Safety Requirements.

28. SAFETY

1. Take all precautions necessary to protect and safeguard workers from dangerous conditions including fumes; lead paints, etc.; asbestos; and silica hazardous to health.

2. Comply with requirements of 01 35 29 Safety Requirements.

29. ADJACENT BUILDING

1. Particular attention shall be paid to prevention of fire and elimination of fire hazards which would endanger new work or existing property.

2. No existing footings, foundations, pipe lines, electrical conduit and wiring shall be undermined or otherwise damaged or endangered by digging, butting of any other operation in the performance of the work of this Contract. Any existing work so affected shall be immediately repaired and made good to the Consultant's satisfaction at the Contractor's expense.

3. Active services to the adjacent buildings and site shall be protected.

4. In case of damage to active services, notify the Consultant, Utilities and Authorities immediately and make all required repairs under direction of appropriate utility. Carry out repairs during off hours if required.

30. NOTES TO THE CONTRACTOR

1. Ensure that the building is maintained weathertight and secure. The Contractor shall furnish all temporary protection, enclosures, tarpaulins, etc., as may be required to weatherproof openings in the work.

2. The Contractor shall carry out all removal and disposal of all resultant debris.

3. In case of damage to active services, notify the Consultant, Utilities and authorities immediately and make all required repairs under direction of appropriate utility. Carry out repairs during off hours if required. In absence of specific requirements or direction, plug or cap unused or abandoned utility lines at least 3 feet (1000 mm) outside of new building walls, or as required by utilities, codes and authorities.

4. The location of construction shacks and trailers to be approved by the Consultant and Owner.

5. Take all precautions necessary to protect and safeguard workers from dangerous conditions including fumes, lead and silica products that may be present during the construction that are hazardous to health.

6. Restore disturbed areas to original condition unless shown otherwise on drawings or stated in specifications.

31. PROTECTIVE FENCING

1. The Contractor shall install and maintain temporary 6'-0" (1800 mm) high chain link fence complete with steel tubular rail top supports and steel posts and gates to fence off construction access and construction areas as directed by the Consultant and as required to conform to the authorities having jurisdiction. The installation of temporary fences shall be to provide the least disruption and to meet the approval of the Owner.

32. CONSTRUCTION PARKING

1. Parking will be permitted on site provided it does not disrupt the performance of Work or activities of the owner and public in occupied site areas and occupied facilities.

33. PROTECTION FOR OFF-SITE & PUBLIC PROPERTY

1. Protect surrounding private and public property from damage during performance of work.

2. Be responsible for damage incurred.

34. SIGN AND ADVERTISEMENTS

1. Erect no other signs, except those signs which are necessary to give direction or for safety, or warning signs, without the Consultant's permission. Where other signs are required or wanted, obtain the Consultant's approval.

35. PROTECTION OF BUILDING FINISHES & EQUIPMENT

1. Provide protection for finished and partially finished building finishes and equipment during performance of work.

2. Provide necessary screens, covers, hoardings as required.

3. Be responsible for damage incurred due to lack of or improper protection. Replace or repair finishes or equipment so damaged.

36. SECURITY

1. When work at site has progressed as to become attractive for vandalism or theft, engage a recognized security guard agency to provide security service at times when tradesmen are not present in substantial numbers.

2. Extent of security services shall be at the discretion of the Contractor. Note that the fit, finish and new appearance of the finished building will not be comprised. Materials, products, finishes, etc. damaged due to vandalism are to be restored and/or replaced to an as-new condition.

End of Section 01 11 00