

1 INSTALLATION REMOVAL OF TEMPORARY FACILITIES

- 1.1 Provide construction facilities and temporary controls in order to execute the work expeditiously.
- 1.2 Remove all temporary facilities from site after use or when directed by Owner and make good damage. Repair or replace items damaged by temporary facilities to Owner's satisfaction.

2 HOISTING

- 2.1 Provide, operate and maintain hoists cranes required for moving of materials and equipment. Make financial arrangements with sub-contractors for use thereof.
- 2.2 Hoists cranes shall be operated by qualified operators.

3 SITE ENCLOSURES

- 3.1 Provide for public safety and security for site in accordance with local and provincial authorities having jurisdiction. Review with local ordinances and by-laws for specific requirements of site enclosures. Erect temporary site enclosures to:
 - 3.1.1 Prevent access of unauthorized personnel to construction site.
 - 3.1.2 Delineate construction site.
 - 3.1.3 Protect personnel in the vicinity of the site.
- 3.2 Construct enclosure and maintain in good repair to approval of Owner. Provide lockable truck gates.
- 3.3 Erect hoarding around entire perimeter of site to protect the public, workers, public and private property from injury or damage.
- 3.4 Provide the following hoarding types:
 - 3.4.1 Hoarding type 1 (perimeter of construction site): New 1800mm high chain link fence, galvanized steel pipe posts and rails, fence fabric 50 x 50, liga wire, c/w gates as required.
 - 3.4.2 Hoarding type 2 (adjacent to existing buildings and pedestrian access): New 2400mm high, 13mm thick exterior grade plywood sheathing fence, secured to 38 x 89 sub-frame at 1200mm o.c. and wood post at 2400mm o.c.. Provide all required cross-bracing and diagonal supports.
- 3.5 Provide barricades and covered walkways required by governing authorities and Owner for public rights of way and for public access to buildings.
- 3.6 Provide barriers around trees and plants designated to remain. Protect from damage.
- 3.7 Maintain all hoarding in good repair for duration of construction.

4 DUST TIGHT SCREENS

- 4.1 Provide dust tight screens or partitions to localize dust generating activities, and for the protection of workers, finished areas of work and the public.
- 4.2 Maintain and relocate protection until such work is complete.
- 4.3 Provide dust tight screens at all links between new building and existing College buildings.

5 DEWATERING

- 5.1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.
- 5.2 Protect open excavations against flooding and damage due to surface run-off.
- 5.3 Dispose of water in a manner to prevent flooding, erosion, contamination, or other damage to any portion of the site or to adjoining areas. Comply with requirements of authorities having jurisdiction.

6 ACCESS

- 6.1 Provide and maintain adequate access roads, sidewalk crossings, ramps and construction runways as may be required for access to the work.. Make good all damage resulting from the Design Builder's use including streets and sidewalks.
- 6.2 Build and maintain temporary roads as required and provide snow removal during period of work.
- 6.3 If authorized to use existing roads for access to project site, maintain such roads for duration of Contract and make good damage resulting from Design Builders use of roads.

7 SITE OFFICES

- 7.1 Furnished of sufficient size to accommodate site meetings. Furnish with drawing lay down table, meeting room table and chairs to facilitate a meeting of up to 10 people, telephone, and fax. Provide and pay for temporary phones as necessary for own use.
- 7.2 Provide one heated, ventilated office each for:
 - 7.2.1 Design Builder, Consultants and Subtrades.
 - 7.2.2 Project Manager, Owner and Consultants.

8 SITE STORAGE /LOADING

- 8.1 Confine the Work and the operations to the limits indicated by the Contract Documents. Do not unreasonably encumber the site with products.

8.2 Provide adequate weather tight sheds with raised floors, for storage of materials, tools and equipment which are subject to damage by weather. Locate on site where directed by Owner.

9 PUBLIC TRAFFIC FLOW

9.1 Provide and maintain flagpersons, traffic signals, barricades and flares/lights/lanterns as required the perform the Work and protect the public.

10 CONSTRUCTION PARKING

10.1 Consult and co-ordinate with the Owner regarding provision of on-site parking for construction personnel.

10.2 Parking will be permitted on construction site provided it does not disrupt the performance of the Work.

11 SANITARY FACILITIES

11.1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances. Facilities in existing buildings shall not be used by the Design Builder's forces unless authorized by the Owner.

11.2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

11.3 When permanent water and drain connections are completed, provide temporary water closets and urinals complete with temporary enclosures, inside building.

12 ENCLOSURE OF STRUCTURE

12.1 Provide temporary weather tight enclosures and protection for exterior openings until permanently enclosed.

12.2 Erect enclosures to allow access for installation of materials and working inside enclosure.

12.3 Design enclosures to withstand wind pressure and snow loading.

13 POWER

13.1 Provide and pay for temporary electrical power supply required during construction for temporary lighting and operation of equipment/tools.

13.2 Arrange for connection with appropriate utility company. Pay all costs for installation, maintenance and removal.

13.3 Provide and install separate meter to monitor electrical use.

13.4 Provide equipment and temporary facilities for power such as pole lines and

underground cables as required to bring services to project site. Install to approval of local power supply authority and Owner.

- 13.5 Provide and maintain temporary lighting throughout the project, and for the duration of the project.
- 13.6 Electrical power and lighting systems installed under this Contract may be used for construction requirements provided that warranties are not affected and such warranties will not commence until the work has attained Substantial Performance of the contract. Make good damage. Replace lamps which have been used over period of 3 months.

14 WATER SUPPLY

- 14.1 Supply potable water for construction use.
- 14.2 Arrange for connection with appropriate utility company. Pay all costs for installation, maintenance and removal.
- 14.3 Permanent water supply system installed under this Contract may be used for construction requirements with prior approval of Project Manager provided that warranties are not affected. Make good damage.
- 14.4 Provide and install separate meter to monitor water use. Pay for utility charges at prevailing rates.

15 HEATING AND VENTILATING

- 15.1 Pay for costs of temporary heat and ventilation used during construction, including costs of installation, fuel, operation, maintenance and removal of equipment. Use of direct-fired heaters discharging waste products into work areas will not be permitted without written approval of Project Manager.
- 15.2 Provide temporary heat and ventilation in enclosed areas as required to:
- 15.2.1 Facilitate progress of work.
 - 15.2.2 Protect work and products against dampness and cold.
 - 15.2.3 Prevent moisture condensation on surfaces.
 - 15.2.4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - 15.2.5 Provide adequate ventilation to meet health regulations for safe working environment.
- 15.3 Maintain minimum temperature of 10 degrees C or higher where specified when finishing work is started. Maintain until acceptance of structure by Project Manager. Maintain ambient temperature and humidity levels as required for comfort of office personnel.

- 15.4 Ventilating:
 - 15.4.1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - 15.4.2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - 15.4.3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - 15.4.4 Ventilate storage spaces containing hazardous or volatile materials.
 - 15.4.5 Ventilate temporary sanitary facilities.
 - 15.4.6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
 - 15.5 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - 15.5.1 Conform with applicable codes and standards.
 - 15.5.2 Enforce safe practices.
 - 15.5.3 Prevent abuse of services.
 - 15.5.4 Prevent damage to finishes.
 - 15.5.5 Vent direct-fired combustion units to outside.
 - 15.6 Submit tenders assuming new equipment and systems will NOT be used for temporary heating, ventilating or air conditioning.
 - 15.7 After award of Contract, Project Manager may permit use of permanent system providing agreement can be reached on:
 - 15.7.1 Conditions of use, special equipment, protection and maintenance.
 - 15.7.2 Saving on Contract price.
 - 15.7.3 Provisions relating to Warranties on equipment.
 - 15.8 When permitted, as per 15.7 above, activate air system under direction of Project Manager to provide temporary heat, after Project Manager is satisfied that system will not be damaged by freezing. Protect ducting system by filters inspected daily and replaced weekly or more frequently as necessary. Vacuum clean entire ducting system and replace all filters prior to final acceptance.
- 16 SITE SIGNS AND NOTICES**
- 16.1 Provide signs and notices for safety and instruction to be in commonly understood graphic symbols and of French and English text.

16.2 No other signage will be permitted on project.

16.3 Maintain approved signs and notices in good condition for duration of project.
Dispose of off site on completion of project or earlier if directed by Project Manager.

17 SHUTDOWN

17.1 Should work be stopped for any cause, provide protection for work and all necessary cold weather heating during work stoppage.

18 SECURITY

18.1 The Design Builder is responsible for security of the construction site and shall provide security measures as necessary. Coordinate measures with the Owner's Protection Services.

19 PROJECT CLEANLINESS

19.1 Maintain the work in tidy condition, free from the accumulation of waste products and debris other than that caused by the Owner or other Contractors. Remove waste material and debris from the site at the end of each working day. Sweep adjacent streets and roadways daily.