# SECTION 110

## ENGINEER'S FIELD OFFICE

On projects having a total estimated tender value of $250,000 or greater, the Contractor shall supply a field office together with furniture for the use of engineering staff. The Field Office shall not be of a lesser standard than that shown on Form 1201 and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Prior written approval must be obtained from the Department should the Contractor wish to supply an office other than that shown and described on this plan.

The Contractor must provide the office with utilities including but not limited to: washroom facility, electricity, high-speed internet access and telephone service (long distance charges are to be itemized and reimbursed through Project Contingency allowances at cost based upon submitted supplier invoices). The field office is to have a plain paper fax and separate photocopier capable of scanning to Adobe PDF format. The photocopier must be capable of copying letter (8.5” x 11”) and legal (8.5” x 14”) sized paper as well as bound field books.

On projects having a total estimated tender value of less than $250,000, the Contractor must still supply a field office and furniture, but the field office and furniture may be to a lower standard than that shown on Form 1201. Furniture and facilities may be reduced accordingly as agreed to by the Owner’s Representative; however, the floor area shall not be less than 15 square metres.

On contracts that involve the construction of a concrete bridge or concrete pavement, the Contractor shall equip the office with a concrete test cylinder-curing tank of capacity not less than 0.2 cubic metres.

The field office must be located on the site of the project and shall be completely ready for use, including all above noted utilities, from the first day the Contractor commences work and it shall remain available for use until Total Performance of the contract as certified by the Owner’s Representative. All doors for accessing the Field Office shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Office shall be securable and accessible from the inside only.

The Contractor shall clean the office and maintain all electric lights, heating, ventilation, hot and cold water, telephone, internet and the washroom facilities in good working condition at all times. Cleaning of the office shall be done on a biweekly basis unless the Owner’s Representative agrees to an alternate schedule.

All costs of providing the office, furniture, equipment and providing and maintaining the required heat, light, hot and cold water, telephone, internet and sanitary provisions (including paper products, soap and sanitizer) together with twice a week clean out shall be borne by the Contractor. (Note: all products for cleaning and sanitizing must meet Health Canada authorized products for disinfection.)

No payment will be made for this item. The provision and maintenance of the Field Office including all the noted requirements shall be considered part of carrying out the other contract items.

## SECTION 111

## FIELD LABORATORY

On projects having a total estimated tender value of $250,000.00 or greater and on which soils testing will be required, the Contractor shall supply a field laboratory together with furniture for use by engineering staff.

The field laboratory shall be heated, have 110 volts 60 cycle electrical outlets, electric light, work benches, clean running water, washroom facilities, electric laboratory oven, propane table top stove, and be suitable for the type of testing called for in the specifications. The field laboratory shall be of a standard not less than that shown on the plan on Form 1203 and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Should the Contractor wish to supply a field laboratory other than that shown on Form 1203, then prior written approval of the Owner's Representative must be obtained.

The field laboratory is to have a photocopier capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books. The office area in the laboratory shall also be fitted with an air conditioning unit.

Whenever asphalt testing is conducted, the Contractor shall provide a fume hood located inside the field laboratory for Department testing purposes, having adequate forced air circulation. This requirement is necessary to ensure the safety of personnel conducting the extraction of asphalt cement from the hot-mix asphalt using N-Propyl Bromide. Contractors shall also provide the required N-Propyl Bromide solvent to conduct the testing.

The fume hood must be located appropriately within the laboratory to allow proper functional access and not interfere with other laboratory functions or testing.

Fume hoods, complete with work surfaces, cabinets, sinks, exhaust blowers and chemical extraction pumps, must be approved by the Materials Engineering Division prior to

purchase. Proposed fume hoods shall meet or exceed ASHRAE-110, NFPA-45, and UL 1805 standards as well SEFA recommended practices.

Materials and description criteria below shall be met:

1. **Fume Hood**

- Minimum dimensions of 72 inches wide x 32 inches deep x 48 inches high to permit placement of vacuum extractor, vacuum pump and hot plate.
- Constructed of chemical resistant, flame retardant, non-metallic composite resin, both interior and exterior.
- Interior fume chamber is moulded one piece seamless with all corners coved.
- Equipped with vertical slide safety tempered glass slash with chemical resistant sash frame – sash track – and sash lift.
- Sash stops which field personnel can manually adjust.
- Vapour-proof light fixture mounted in hood with switch pre-wired to junction box.
- 115v, 20amp, single-phase 2-duplex receptacle installed on front column of fume hood for a vacuum pump and hot plate.
- Switch installed for chemical extraction pump.

(Hemco Uniflow LE Fume Hood Part No. 35611 or Equivalent)

(Hemco Safety Sash Lock Part No. 51651 or Equivalent)

(Hemco 2 Duplex Receptacle Part No. 50029-2 or Equivalent)

(Hemco Single Receptacle Part No. 50030-2 or Equivalent)

2. **Work Surface (Countertop)**

- Stainless steel work surface with dimensions to match internal fume hood chamber.
- Surface dished minimum 3/8” to contain spillage.
- Hole must be cut in surface to allow installation of oval cup sink.
- Polyolefin 3 inch by 9 inch oval cup sink for drainage

(Hemco Stainless Steel Work Surface Part No. 20616 or Equivalent)

(Hemco Oval Cup Sink Part No. 40121 or Equivalent)

3. **Acid Storage Base Cabinets**

- Storage base cabinets having dimensions to match fume hood chamber (minimum dimensions for one cabinet 72 inches wide or two cabinets 36 inches wide each.)
- Constructed of top grade furniture steel with a chemical resistant finish.
- Interior shall have a moulded one piece seamless liner constructed of chemical resistant composite resin.
- Adequate space for two 5-gallon containers. One container will hold clean solvent to pump into extractor whereas the second container will hold the asphalt cement / N-Propyl bromide extract solution from the vacuum extractor. (Rather than setting up the two containers, the Contractor may run lines for clean solvent and extract to barrels outside the trailer that are properly secured)
- Adjustable Shelf and vented hinged doors.

(Two Hemco Acid Storage Base Cabinets Part No. 15030 (36 inches wide) or equivalent)

4. **Fume Hood Exhaust Blower**

- Belt driven exhaust blower installed next to hood or externally on the trailer roof. Capacity of 500-1000 CFM
- ¼ HP, 115 V motor
- Pilot light switch for air blower.
- Ventilation duct hardware and vents shall be supplied and installed as per fume hood manufacturer's instructions

(Hemco Epoxy Coated Steel Blower Belt Drive Part No. 51705X or Equivalent)

(Hemco Blower Switch with Pilot Light Part No. 50027-1 or Equivalent)

5. **Chemical Extraction Pump**

- 115v liquid-flow pump to be installed in base cabinet to extract N-Propyl Bromide from container
- Pump outfitted with chemical resistant Viton diaphragm
- Piping made of PVC plastic

The fume hood must also be inspected prior to use in accordance with all applicable regulations.

**Contractors are to provide the required N-Propyl Bromide solvent to conduct the testing.** For rough estimate purposes, each extraction test requires approximately 5 litres solvent.

Contractors must also dispose of used solvent by means of an approved chemical waste disposal company. Verification of proper disposal of the solvent shall be provided to the Owner's Representative upon completion of the work.

The field laboratory shall be located on the site of the project and shall be ready for use from the first day the Contractor commences work for which testing is required, and it shall remain available for use for the duration of the contract. All doors for accessing the Field Laboratory shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Laboratory shall be securable and accessible from the inside only.

The Contractor shall supply a separate vented steel storage locker for the Department's coring machine and mixed gas. The storage unit shall be located near the field laboratory and have a means of properly securing its contents.

The Contractor shall periodically clean the laboratory and maintain all electric lights, heating, running water, and sanitary provisions in good working condition during the time the laboratory is required.

On projects having a total estimated tender value of less than $250,000, the Contractor shall provide and maintain a field laboratory as described, or provide transportation of all Test Samples from the job site to the Department's Materials Engineering Division at LeMarchant Road in St. John's.

The Owner's Representative, or their representatives shall select test samples, and the number and the frequency of taking test samples shall be at the sole discretion of the Owner's Representative.

All costs of providing and maintaining the field laboratory as described, or of transporting test samples shall be borne by the Contractor. No payment will be made for this item. The provision and maintenance of the field laboratory shall be considered as part of carrying out those contract items for which tests are required.

## SECTION 112

## BOARD AND LODGING FOR DEPARTMENTAL PERSONNEL

The Contractor shall supply board and lodging to the Department's Engineering staff, or their representatives, employed on the work, providing that the Contractor is maintaining

accommodations for their staff. Board and lodging shall include furnished sleeping quarters, comparable to those supplied to the Contractor's own staff.

Rates for determining payment for board and lodging shall be in accordance with the latest Human Resources Secretariat Travel Policy for Newfoundland Meal and Private Accommodations in effect at the time of tender closing (including HST). Current rates may be found under the travel policy at the following link:

https://www.exec.gov.nl.ca/exec/hrs/working_with_us/policies.html

The Contractor shall not charge the Department for meals not availed of by the Department's Engineering staff as long as three (3) hours notice before mealtime is given. When the Department's employees do not avail of meals and accommodations supplied by the Contractor on weekends and holidays, payment will be made for lodging only.

Should the Contractor provide accommodations for their staff, and insufficient space is made available for Department personnel, alternate arrangements will be made for Department personnel and costs associated for the alternate arrangements, in excess of the $25.00 for lodging specified above, are to be borne by the Contractor.

## SECTION 113

## SANITARY PROVISIONS

The Contractor shall provide and maintain sanitary provisions for the use of their employees. The sanitary provisions shall be in accordance with the various Provincial and Municipal Government Regulations. In particular, the Contractor shall ensure sanitary provisions meet with the requirements of Section 61 and 62 of the OH&S Regulations.