

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 698 – FIELD FACILITIES

This Supplemental Specification replaces Section 698 – Field Facilities.

Description

1.1 Under this section, the Department will pay for the use of Contractor owned and Contractor maintained field offices Type A, Type B, Type C, Type D and physical testing laboratories set-up and maintained by the Contractor during the construction of the project. This work will include installing, leveling, maintaining, and removing facilities and providing the required equipment and services. The location of the facilities shall be within approximately ¼ mile of the project limits and subject to the approval of the Engineer.

Materials

2.1 General. Housing for field offices and laboratories shall be mobile office space or building office space, which meet the following minimum requirements:

2.1.1 Field Office Type A.

Dimensions:	Shall meet the minimum size requirements as described by the Special Provision included in the Proposal.
Interior:	Shall meet the minimum size requirements as described by the Special Provision included in the Proposal.
Lavatory:	Built-in lavatory and toilet facilities with hot and cold water.
Electrical:	Adequate overhead lighting at each work area and two power outlets per room, including one exterior outlet light near entrance.
Air Conditioner(s):	Central air conditioning or a sufficient number of individual units to maintain a maximum temperature of 78° F (26° C).
Heat:	Thermostatically controlled to maintain a minimum temperature of 68° F (20° C).
Weatherproofing:	Roof, sides, and floor shall be maintained weatherproof at all times.

2.1.2 Field Office Type B.

Dimensions:	Minimum of 650 ft ² (60 m ²) of nominal floor space. Minimum of 7 ft. (2.1 m) in height.
Interior:	Minimum of three partitioned areas. One area shall be approximately 120-150 ft ² (11-14 m ²) for the installation of all computer components with interior door and lock. Another area shall be approximately 250 ft ² (23 m ²) for use as a conference room. Each major area shall have telephone plug-in jacks. The computer area shall have an additional telephone jack for the computer.
Lavatory:	Building office space: Built-in lavatory and toilet facilities with hot and cold water. Mobile office space: Portable toilet facilities per 2.1.5
Closets:	Built in, approximately 22 in deep by 3 feet (560 mm deep by 1.0 m) wide.
Windows:	Minimum of two per partitioned area with locks and screens providing cross ventilation.
Doors:	Minimum of two with locks.
Electrical:	Adequate overhead lighting at each work area and two power outlets per room, including one exterior outlet light near entrance.
Air Conditioner(s):	Central air conditioning or a minimum of two individual units (one in the computer area) sized to maintain a maximum temperature of 78° F (26° C).
Heat:	Thermostatically controlled to maintain a minimum temperature of 68° F (20° C).
Weatherproofing:	Roof, sides, and floor shall be maintained weatherproof at all times.

2.1.3 Field Office Type C.

Dimensions:	Minimum of 300 ft ² (28 m ²) of nominal floor space. Minimum of 7 ft. (2.1 m) in height.
Interior:	Minimum of two partitioned areas, one being approximately 125 ft ² (12 m ²) with interior door and lock.
Lavatory:	Building office space: Built-in lavatory and toilet facilities with hot and cold. Mobile office space: Portable toilet facilities per 2.1.5
Closets:	Built in, approximately 22 in deep by 3 feet (560 mm deep by 1.0 m) wide.

Windows:	Minimum of four with locks and screens providing cross ventilation.
Doors:	Minimum of two with locks.
Electrical:	Adequate overhead lighting at each work area and two power outlets per room, including one exterior outlet light near entrance.
Air Conditioner(s):	Central air conditioning or a minimum of two units (one in the computer area) sized to maintain a maximum temperature of 78° F (26° C).
Heat:	Thermostatically controlled to maintain a minimum temperature of 68° F (20° C).
Weatherproofing:	Roof, sides, and floor shall be maintained weatherproof at all times.

2.1.4 Field Office Type D and Field Laboratory.

Dimensions:	Minimum of 200 ft ² (18 m ²) nominal floor space. Minimum of 7 ft. (2.1 m) in height.
Windows:	Minimum of two with locks and screens providing cross ventilation.
Lavatory:	Building office space: Built-in lavatory and toilet facilities with hot and cold water. Mobile office space: Portable toilet facilities per 2.1.5
Closets:	Built in, approximately 22 in deep by 3 feet (560 mm deep by 1.0 m) wide.
Doors:	Minimum of one with lock.
Electrical:	Adequate overhead lighting at each work area and two power outlets per room, including one exterior outlet.
Air Conditioner:	Central air conditioning or individual unit(s) sized to maintain a maximum temperature of 78° F (26° C).
Heat:	Thermostatically controlled to maintain a minimum temperature of 68° F (20° C).
Weatherproofing:	Roof, sides, and floor shall be maintained weatherproof at all times.

2.1.5 Toilet facilities for mobile office space shall be a separate facility fabricated from steel, fiberglass, or wood, housing a portable chemical toilet, provided by the Contractor. This building shall be well ventilated, shall conform to State law, and shall have a vented chemical tank and a separate urinal. This facility should also be equipped with water-less hand cleaner/sanitizer.

2.1.5.1 For mobile office space, non-operational toilets and sinks shall be removed so that the space can be used for additional storage. Any holes or exposed plumbing left behind due to the removal of the toilet and sink shall be adequately protected.

2.2 Field Office Equipment.

2.2.1 Equipment Required for all Field Offices.

Water Cooler:	1, new or like new 5 gallon (19 L) capacity, bottled water supplied and maintained.
MUTCD:	The current edition of the <i>Manual on Uniform Traffic Control Devices for Streets and Highways</i> and any supplements or amendments thereto, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
Measuring Wheel:	1, 15 in. (380 mm) minimum diameter with capacity to record up to 10,000 feet to the tenth of a foot (3 km to the nearest 30 mm), built-in stand, and storage case.
4' direct reading level	
10' metal straight edge:	Light-weight metal straightedge with a rectangular cross-section of 2 by 4 in. (50 x 100 mm)
Marking Paint:	Adequate supply, lead-free, non-clogging; color as ordered by the Engineer.
Pencil Sharpener:	1, standard size.
Calculator/Adding Machine	1, desktop print/display with minimum of ten digits.
Facsimile Machine:	This machine shall have the capability of sending and receiving 8-1/2 x 11 in on (212.5 x 275 mm) paper on a single separate committed telephone line. The following minimum specifications shall also apply: Transmission time: 16 seconds per page at standard resolution Transmission speed: 10ms/line @ 98 lines/in. (4 lines/mm) Reception speed: 20ms/line @ 98 lines/in. (4 lines/mm) Document length: 14.5 in. (370 mm) maximum, 4 in. (100 mm) minimum Auto document feed: 15 pages maximum Horiz. Print resolution: 203 pixels/in. (8 pixels/mm) Vertical print resolution: 98 lines/in. (4 lines/mm), standard All connections and supplies necessary to allow successful operation of this machine shall be provided by the Contractor.
Thermometer:	1, indoor/outdoor type.

Trash Receptacle:	1, per portioned space including trash bags.
Vacuum Cleaner:	1, electric (5hp minimum), utility shop-vac (10 gal [38 L] capacity minimum) with 25 ft. extension cord.
Floor Broom/Dust Pan:	1 each.
First Aid Kit:	Shall contain a minimum of: 20-adhesive bandages, 3/4 in. (20 mm) wide. 1-first aid tape, 1/2 by 180 in. (13 mm by 4.5 m). 1-flexible gauze bandage, 2 by 126 in. (50 mm by 3.2 m). 1-flexible gauze bandage, 4 by 126 in. (100 mm by 3.2m). 1-triangular bandage 10-antiseptic swabs 3-sterile pads, 3 by 3 in. (75 by 75 mm) 3-ammonia inhalants antiseptic cream aspirin eyewash kit poison ivy cream scissors tweezers 1, current first aid book bug and/or tick repellent
Rain Gauge:	1, constructed from a clear material, minimum 1/4" permanently marked graduations, minimum 6" capacity with mounting bracket.

2.2.2 Additional Equipment for Field Office Type A, Type B, Type C, and Type D

Water:	Type A: Water service to supply lavatory.
Fire Extinguisher:	Type A, B & C: 2, multi-purpose (A, B, C), dry powder, minimum 5 lb. (2.2 kg) size. Type D: 1, multi-purpose (A, B, C), dry powder, minimum 5 lb. (2.2 kg) size.
Office Desks:	Type A: per Special Provision included in the Proposal. Type B: five furnished with drawers. Type C: four furnished with drawers. Type D: one furnished with drawers.
Desk Chairs:	Type A: Per Special Provision in the Proposal. Type B: five Type C: four Type D: one
Conference Table:	Type A: Per Special Provision included in the Proposal. Type B & C: 1, minimum dimensions 8 ft. by 2.5 ft. (2.4 by .7 m)

Folding Chairs:	Type A: Per Special Provision included in the Proposal. Type B: ten Type C & D: four
Drafting tables	Type A: Per Special Provision included in the Proposal. Type B: 2, at least 6 ft. by 3 ft. – 3 in. (1.8 m by 1 m), approximately 3 ft (1.0 m) high, with two drafting stools per table. Type D: 1, at least 6 ft. by 3 ft.-3in. (1.8 m by 1 m), approximately 3 ft. (1.0 m) high, with two drafting stools per table.
Copier:	1, desktop, letter and legal size, minimum of eight copies per minute, reduction and enlarging capability with supplies and maintenance.
File Cabinet:	1 four-drawer, or 2 two-drawer, fire resistant, legal size; inside dimension approximately 10 by 15 by 26 in. (250 by 380 by 660 mm) each, with lock(s) and key(s). The file shall bear an Underwriters Laboratories “C” Label - 350°F (177° C) for one hour, inside surface.
Plan Rack or File:	Type A & B: two, for 2 by 3 ft. (600 by 900 mm) prints Type C & D: one, for 2 by 3 ft. (600 by 900 mm) prints

2.2.2.1 Desk chairs and drafting stools shall be 5 pedestal on wheels and adjustable with back support. All office furniture shall be in good, safe working order and condition.

2.2.3 The Contractor Shall Provide Additional Equipment as Required by the Special Provision Provided in the Contract Proposal.

2.2.4 The field office Type D shall also include the following testing equipment for determining gradation of gravels. This testing equipment shall be maintained in a satisfactory condition.

- (a) Balance: triple beam, at least 2000 grams capacity, sensitive to 0.1 gram, including carrying case.
- (b) Field scale: at least 70 lb (32 kg) capacity, sensitive to 0.01 lb (0.005 kilogram).
- (c) Hot plate or stove: two-burner, electric or bottled gas.
- (d) Sieves: set of U.S. Standard 8 in. (200 mm) brass, 2 in. (50 mm) high, consisting of one each No. 16 and No. 200 (1.18 mm and 0.075 mm) sieves, with pan and cover.
- (e) Shaker: motor driven, for 8 in. (200 mm) sieves.
- (f) Riddles: set of 16 in. (400 mm) wood, metal or plastic consisting of one each 3 in., 2 in., 1-1/2 in., 1 in., 3/4 in. and No. 4 (75 mm, 50 mm, 37.5 mm, 25.0 mm, 19.0 mm, and 4.75 mm).
- (g) Canvas: heavy, 5 by 5 ft. (1.5 by 1.5 m), for quartering samples.
- (h) Miscellaneous small tools and containers: shovels (one round pointed and one square pointed), assorted pans such as cake tins, and two pails.
- (i) Proctor mold: 4 in. (101.6 mm), capacity 1/30 ft³ (0.000943 m³) (AASHTO T 99).

- (j) Proctor hammer: 5.5 lb (2.5 kg), free fall of 12 in. (305 mm) (AASHTO T 99).
- (k) Straight edge: steel (1-1/2 to 2 in [38 to 50 mm] wide), with a 12 in. (305 mm) beveled edge.
- (l) Moisture determination apparatus (Speedy Moisture Tester): calcium carbide type, 20 gram or 26 gram size.

2.3 Field laboratory equipment. The physical testing laboratory shall be provided with the scientific equipment required to perform physical tests for embankment compaction and grading, and for determining the suitability of the base course materials in conformity with standard AASHTO procedure. Following is a list of minimum equipment required to be maintained in a satisfactory condition for the use of the Engineer and the Contractor:

- (a) Proctor mold: 4 in. (101.6 mm), capacity 1/30 ft³ (0.000943 m³) (AASHTO T 99).
- (b) Proctor hammer: 5.5 lb (2.5 kg), free fall of 12 in. (305 mm) (AASHTO T 99).
- (c) Straight edge: steel (1-1/2 to 2 in [38 to 50 mm] wide), with a 12 in. (305 mm) beveled edge.
- (d) Balance: triple beam, at least 2000 grams capacity, sensitive to 0.1 gram, including carrying case.
- (e) Field scale: at least 70 lb (32 kg) capacity, sensitive to 0.01 pounds (0.005 kilograms).
- (f) Hot plate or stove: two-burner, electric or bottled gas.
- (g) Shaker: motor driven, for 8 in. (200 mm) sieves.
- (h) Sieves: set of U.S. Standard 8 in. (200 mm) brass, 2 in. (50 mm) high consisting of one each No. 4, 8, 16, 50, 100, and 2 each No. 40 and 200 (4.75 mm, 2.36 mm, 1.18 mm, 0.300 mm, 0.150 mm, and 2 each 0.425 mm and 0.075 mm) sieves, with pan and cover.
- (i) Riddles: set of 16 in. (406 mm) wood or metal, consisting of sizes 3 in, 2 in, 1-1/2 in, 1 in, 3/4 in, 1/2 in, 3/8 in, and No. 4 (75 mm, 50 mm, 37.5 mm, 25 mm, 19 mm, 12.5 mm, 9.5 mm and 4.75 mm).
- (j) Canvas: heavy, 5 by 5 ft. (1.5 by 1.5 m), for quartering samples.
- (k) Moisture determination apparatus (Speedy Moisture Tester): calcium carbide type, 20 gram or 26 gram size.
- (l) Sieve shaker: mechanical, for gravel, (mounted outside and independent of the laboratory building) holding 18 by 24 in. (460 by 600 mm) tray including 2 in, 1-1/2 in, 1 in, 3/4 in and No. 4 (50 mm, 37.5 mm, 25.0 mm, 19.0 mm, and 4.75 mm) screens.
- (m) Fire extinguisher: 1, multi-purpose (A,B,C) (dry powder) minimum 5 lb (2.2 kg) size.
- (n) Graduate: 100 mL, plastic.
- (o) Miscellaneous small tools and containers as necessary: Such as shovels (one round pointed and one square pointed), crowbar, pickaxe, 6 in. (150 mm) blade knife, sampling spoon, small trowel, measuring scoop, assorted pans similar to roasting pans and cake tins, and a floor broom.
- (p) Bench oven: electric, 110 volt, minimum volume 7.5 cubic feet (0.2 cubic meters).
- (q) Sample splitter: minimum chute width 1 in. (25 mm).

2.3.1 The laboratory shall be furnished with a heavy work table approximately 3 ft. (1.0 m) high by 3 ft. (1.0 m) wide and extending the length of the building. Suitable shelves and benches shall be provided as directed.

2.3.2 The laboratory shall be equipped with an elevated clean water tank having a minimum capacity of 275 gal (1040 L) which shall be supplied with potable water as directed. The tank shall be piped to a faucet at an approved sink within the laboratory.

2.3.3 To provide a suitable foundation for the mold to rest on when the AASHTO T 99 density test is being performed, a solid block of concrete approximately 18 in. (460 mm) deep, having a flat top approximately 1 ft. (300 mm) square shall be set practically flush in the ground at an approved location near the field laboratory.

2.3.4 This field laboratory and equipment is in addition to any other requirements specified in Sections 401 and 520.

2.4 Miscellaneous Office Supplies. In addition to the materials listed in 2.1, 2.2 and 2.3, upon written request the Engineer may require the Contractor to furnish miscellaneous office supplies such as field books, cross section paper, loose-leaf binders, etc., as appropriate.

Construction Requirements

3.1 Facilities.

3.1.1 Field offices and field laboratories shall be on the project, leveled and ready for use prior to the start of any operations. Acceptance of the physical testing laboratory will not be given until the equipment has been inspected and approved by representatives of the Bureau of Materials and Research. Testing equipment shall be calibrated by the Contractor in accordance with 106.03. These facilities shall be removed when the project is completed unless released earlier by the Engineer.

3.1.2 When field offices or field laboratories are to be placed on private property, the costs incidental to such placement shall be borne by the Contractor. Prior to Acceptance of the Work, the area shall be restored to the acceptance of the property owner and the Engineer. A written release from the property owner will be required.

3.1.3 Field offices and field laboratories shall not be combined, nor shall they be combined with the scale house or other similar structure.

3.1.4 Field offices and toilet facilities shall be for the exclusive use of Department personnel.

3.2 Maintenance, Service, and Utilities.

3.2.1 The Contractor shall furnish the following for a field office Type A, Type B, Type C, Type D or physical testing laboratory:

- (a) Fuel. Adequate supply for heating and testing operations.

- (b) Electricity. A 3,000 watt, 115-125 volt AC facility for each field office and field laboratory. Independent generators shall be provided where commercial power is not available.
- (c) Telephone. Telephone service, telephone and telephone message recorder shall be provided in the field office. Telephone service shall include a separate line for the telephone with 2 jacks one adjacent to the computer, a separate voice-grade, touch-tone dialing line for the computer modem, and a third voice-grade, touch-tone dialing line for the FAX machine. All necessary hardware and appurtenances for the computer modem shall be provided to the computer room, when a computer is supplied.
- (d) Sanitary. Toilet facilities as described in 2.1.5 shall be serviced and maintained in a sanitary condition.
- (e) Maintenance, including trash pickup and disposal.
- (f) First Aid Kit. Shall be maintained and restocked as necessary or as directed.
- (g) Access. Parking areas, including entrances and exits shall be adjacent to the field offices and maintained for year round access. This includes snow removal as long as field offices are occupied and preparing access areas so non-paved surfaces won't track in wet conditions.

3.2.2 The Contractor shall maintain all furnished equipment in good working condition and shall provide replacement or repair of equipment due to breakdown, damage, or theft within two (2) working days of notice.

Method of Measurement

4.1 Field offices and Physical testing laboratory of the type specified and used on the project by the Engineer will be measured by the month, from the date each field office or physical testing laboratory is completely furnished and ready for occupancy, as determined by the Engineer, to the date that it is released back to the Contractor. Periods of less than one month will be computed at the rate of 1/30 of the unit price per month for each day of occupancy by the Engineer.

Basis of Payment

5.1 Payment for each accepted Field Office or physical testing laboratory, installed as specified, will be made at the corresponding Contract unit price per month. Such payment shall constitute full compensation for furnishing and erecting the field office or physical testing laboratory; for providing the specified utilities and maintaining the field office or physical testing laboratory and its equipment throughout the period of usage by the Engineer, including periods of project suspension and for restoration of the field office or physical testing laboratory is needed on the project.

5.1.1 The costs of all project related telephone service, including installation; monthly fees; taxes; any activation fees; internet access as specified; unlimited local calls; and toll calls up to \$300.00 per month shall be paid by the Contractor, subsidiary to the field office. The Department will reimburse the Contractor for any toll calls incurred by State personnel above \$300.00 per month as provided for in 109.04.

5.2 No payment will be made for periods of time in which the Contractor fails to comply with any of the requirements of this specification.

5.3 No payment will be made for time periods for which the Contractor fails to complete the Work on time as specified in 108.07.

5.4 The material cost of miscellaneous office supplies only, will be paid for as provided in 109.04. No payment for labor costs incidental to procuring these supplies will be authorized.

Pay items and units:

698.11	Field Office Type A	Month
698.12	Field Office Type B	Month
698.13	Field Office Type C	Month
698.14	Field Office Type D	Month
698.2	Physical Testing Laboratory	Month