

ROAD COMMISSION FOR OAKLAND COUNTY

SPECIAL PROVISION
FOR
HMA PLANT TESTING LAB

RCOC/DESIGN:SH/JO

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RCOC20SP501B
ORG:03-28-21

a. Description

This work shall be done in accordance with section 501 and 809 of the *2020 Michigan Department of Transportation Standard Specifications for Construction*, except as herein provided.

b. Materials

All work must be in accordance with the contract documents.

c. Construction

Add the following to section 809.03.B.

4. HMA Plant Testing Lab

Provide a weatherproof laboratory (Building or Trailer) for the testing of HMA mixtures at the plant site, exclusively for use by RCOC employees during production of material for the project. RCOC employees shall have complete access to all operations during production of HMA mixtures. There shall be a sanitary facility on site for RCOC employees use. The laboratory exterior shall not be less than 10 ft. wide and have an interior floor area of not less than 250 square feet. The laboratory shall contain at least 3 windows, with at least one of the windows being sash, hinge or sliding. Each window shall have an area not less than 540 square inches. At least one window shall face the plant operation. The floor of the laboratory shall be free from any movement that affects the accurate reading of the equipment used.

The laboratory shall be furnished with:

1. A climate control unit capable of maintaining 70 – 80 degrees Fahrenheit during work hours.
2. A minimum of 85 square feet of rigidly constructed counter space. The counter shall be a minimum of 2.5 feet deep and approximately 3 feet above the floor. It shall be securely mounted against the wall and to the floor.
3. A sink with end board and running water through a faucet under pressure.
4. The Contractor shall provide a telephone for control of the work. The Contractor will be reimbursed for any long-distance charges incurred by RCOC personnel.
5. First-aid kits and fire extinguisher. Fire extinguisher shall meet State & Local Fire Marshall Regulations. The Contractor shall maintain these items.

6. An enclosed hooded workbench area large enough to contain a vacuum asphalt extractor, and a gas or liquid-fueled stove with at least 2 burners. The Contractor shall furnish the fuel required for the stove. Storage and usage of the fuel shall be in accordance with the latest regulations of Michigan State Police, Fire Marshall Division. The hooded area shall include an exhaust fan that shall provide adequate ventilation of the building. A ground-fault 120-volt electrical outlet shall be furnished.
7. A minimum of ten duplex ground fault, 120-volt electrical outlets. It shall be possible to run all electrical equipment in the laboratory simultaneously.
8. Not less than two 75-watt electric lights per room, as to provide safe and adequate lighting for testing purposes.
9. The Contractor will supply potable water for drinking.
10. A quartering board approximately 4' X 4' shall be provided. The surface of the quartering board shall be non-porous. If the quartering board is external to the laboratory it shall be protected from the weather.
11. An approved electrically powered mechanical sieving apparatus. The shaker shall be capable of handling a full complement of full height 8" & 12" standard sieves.
12. All the equipment necessary to perform Theoretical Maximum Specific Gravity of HMA Paving Mixtures, per current MTM Standards. Water to perform this test shall be supplied by the Contractor.
13. Balance, Electronic Precision, digital display, 0 – 6500 grams minimum, tolerance 0.1 gram, equipped for weighing a bottom suspended basket or hook, 1 each. A rust proof basket or hook large enough to hold 6" cores shall be part of this equipment.
14. Tray, utility, 18" X 26" X 7/8" high, aluminum (a restaurant supply house is an acceptable source), 2 each.
15. Fan, bench top or bullet, 1 each.
16. Hot Plate, 6 1/4" X 6 1/4" 750watts, 115 volts, 1 each.
17. Oven, Gravity or Forced Air Bench Top, temperature range to 200 deg. C, uniformity +/- 5 deg C, interior 24"W X 24"D X 20" H, 120/240 volt, 1 each.
18. Marshall Compaction Set 4" dia., set includes, 1 – automatic standard single compactor hammer assembly, 1 – mold holder, pedestal and hammer guide. Marshall Hammer pedestal shall be permanently attached to the floor free of vibration during operation, 1 each.
19. Marshall Specimen Extractor 4" dia., 1 each.

20. Marshall Compaction Mold 4" dia., 3 each.

21. Electronic digital timer, 1 each.

22. Bowl, stainless steel, 13 quart, 2 each.

23. Miscellaneous tools and supplies necessary to complete all required Verification testing. This will include providing a proper container for disposal of an acceptable asphalt solvent.

24. Contractor shall supply for RCOC use, one NCAT Ignition Furnace Oven, Model #F85930 or equivalent located in RCOC or Contractors lab, and one complete set of sampling baskets for RCOC use. Contractor shall also supply RCOC with a Correction Factor for the purpose of obtaining Asphalt Content per current MTM. when contractor's equipment is being used.

25. Contractor shall supply for RCOC use, one Hot Mix Asphalt Superpave Gyratory Compactor (SGC), two SGC molds and all equipment necessary to obtain two Specimens for the determination of the Bulk Specific Gravity and Density of Compacted HMA Mixture(s). SGC and equipment shall meet the requirements of the most recent AASHTO Standard Specification T312. SGC and additional equipment shall be located in RCOC or Contractors lab.

26. Contractor shall furnish a sampling platform for RCOC employees to obtain there HMA samples from inside trucks at the plant site. The sampling platform shall meet all State, MIOSHA and Local regulations.

These items shall be in place and operational before the start of paving operations and left in place until all paving operations are complete.

d. Measurement and Payment

The above items will not be paid for separately and are considered included in the contract unit price for HMA pay items. This will also include any disposal, utility and maintenance fees associated for maintaining HMA Plant Testing Lab.