801-T-211 PORTABLE TRAFFIC SIGNALS

(Adopted 12-17-15)

The Standard Specifications are revised as follows:

SECTION 801, BEGIN LINE 750, DELETE AND INSERT AS FOLLOWS:

(d) Temporary Traffic Signals

This work shall consist of furnishing, installing, and maintaining temporary traffic signals in accordance with 805 except as modified herein.

Except as shown on the plans, all materials not furnished by the Department shall remain the property of the Contractor after work is completed and the equipment is removed.

The traffic signal equipment shall be as specified, but may be either new or used. Used equipment shall be in satisfactory working condition and will be approved prior to use.

Two signal heads shall be displayed for each approach. Signals shall be displayed overhead on a span, catenary, and tether utilizing an aircraft cable, unless otherwise directed. Signal cable may be extended across bridges through conduit which shall be attached to the underside of the coping. Type and spacing of clamps shall be approved prior to installation.

Conduit shall be steel or plastic. Flexible conduit will be an acceptable alternate for use as ground rod entry, magnetometer, or microloop installations.

1. Fixed Temporary Signals

Fixed temporary signals shall be displayed overhead on a span, catenary, and tether utilizing an aircraft cable, unless otherwise directed.

Electric energy necessary to power the *fixed* temporary signal is the responsibility of the Contractor. Prior to the start of construction, the schedule of activities shall be coordinated with the power company.

The Contractor shall obtain permits from local officials, companies, or individuals for the use of poles, right-of-way, or other property incidental to the installation of *fixed* temporary signals. Although entering into the contract implies permission and authority to install conduit under pavement, sidewalks, and alleys, all damage to underground utilities or interruption of such service shall be the responsibility of the Contractor.

The location, spacing, and timing of *fixed temporary* signals will be determined by the Engineer.

An IMSA certified level II *Traffic Signal Construction* *Technician *or a level II Traffic Signal Field Technician* shall be available 24 h a day to respond within 2 h for the maintenance of the traffic signal equipment.

Signal cable may be extended across bridges through conduit which shall be attached to the underside of the coping. Type and spacing of clamps shall be approved prior to installation.

Conduit shall be steel or plastic. Flexible conduit will be an acceptable alternate for use as ground rod entry, magnetometer, or microloop installations.

The controller shall be *traffic actuated* solid state digital. When detection is required, the controller shall be traffic actuated solid state, digital.

Vehicle detection, if required, shall be installed as shown on the plans or as otherwise directed and shall be operational prior to signal activation.

Vehicle detection shall be provided and shall be either inductive loop or wireless unless otherwise noted on the plans.

2. Portable Signals

Portable signals shall be selected from the Department's list of approved Portable Signals. Prior to the activation the Contractor shall provide a completed inspection checklist to the Engineer certifying that the portable signal is functioning properly.

The portable signal shall be equipped with remote monitoring. Unless otherwise shown on the plans, wireless vehicle detection shall be provided. Drums shall be placed immediately in front of the portable signal trailer at both corners for delineation.

A technician certified by the manufacturer shall be available 24 h a day to respond within 2 h for the maintenance of the traffic signal equipment and a copy of the certification shall be provided to the Engineer prior to the placement of the portable signals. Maintenance of the portable signal includes adjustments to the phasing or timing as indicated on the plans or directed by the Engineer. The Contractor shall replace portable signals that cannot be returned to normal operation or that fail two times during the contract.

The Contractor shall provide a record of any modifications to the signal timing plan, failures, and all maintenance issues, to the Engineer prior to final acceptance and when otherwise requested. The report shall indicate the date, time, and nature of each event.

SECTION 801, BEGIN LINE 918, DELETE AND INSERT AS FOLLOWS:

Temporary illumination, *fixed* temporary traffic signals, *portable signals*, and maintaining traffic will not be measured for payment.

SECTION 801, BEGIN LINE 1009, DELETE AND INSERT AS FOLLOWS:

The accepted *fixed* temporary *and portable* traffic signals, complete in place and later removed as specified, will be paid for at the contract lump sum price.

SECTION 801, BEGIN LINE 1030, INSERT AS FOLLOWS:

Patroller......DAY

Portable Changeable Message Sign	EACH
Portable Signal	<i>LS</i>
Road Closure Sign Assembly	
SECTION 801, BEGIN LINE 1057, DELETE AND INSERT Temporary Traffic Signal with Detectors Fixed Temporary Traffic Signal	LS

SECTION 801, AFTER LINE 1166, DELETE AND INSERT AS FOLLOWS:

The cost of the vehicle detection, solar panel, battery cabinet, program timing module, signal heads, wiring, trailer, and all hardware required shall be included in the cost of the portable signal.

Electric energy necessary to power luminaires and *fixed* temporary traffic signals will not be paid for.