



Iowa Department of Transportation

DEVELOPMENTAL SPECIFICATION FOR PORTABLE TEMPORARY TRAFFIC SIGNALS FOR FLAGGER STATIONS

Effective Date
June 19, 2012

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

09069.01 DESCRIPTION.

Provide a portable temporary traffic signal system for a one-lane/two-way temporary traffic signal operation used in conjunction with a flagger and/or pilot car operation. This work is to provide greater advance visibility to the flagging operation.

Apply Articles 2528.03, ~~F, H,~~ and ~~2528.03, J,~~ of the Standard Specifications except as modified in this specification.

09069.02 EQUIPMENT.

Provide a system meeting the following requirements:

- A. Two or more self-contained trailer mounted units each consisting of one or two signal heads.
 - Single-signal head system: signal head positioned on each side of the roadway.
 - Two-signal head system: one signal head mounted on a mast arm capable of extending over the center of the travel lane and the other signal head mounted on the same trailer.
- B. Meet the physical display and operational requirements of conventional traffic signals according to Part 4 of the MUTCD.
- C. Signal heads with 12 inch (300 mm) lenses and complying with ITE Specification for 'Vehicle Traffic Control Signal Heads' and NEMA Standards TS1 and TS2.
- D. Signal heads equipped with visors and back plates.
- E. The operating temperature range at least -30°F to 120°F (-35°C to 50°C).
- F. A solar cell system to facilitate battery charging.
- G. A minimum of 20 hours backup reserve battery supply and the capacity of operating with a 120 volt power supply from a generator or electrical service.

09069.03 CONSTRUCTION.

- A. Notify the Engineer at least 48 hours prior to the use of the signals for timing approval and verification. Have a qualified vendor representative on site to perform the initial set up and enter the timing parameters.
- B. Set up and level the portable traffic signal installations in a manner the Engineer approves.
- C. Program all portable traffic signals for red flash upon startup, conflict, or power failure. Program the portable traffic signal system is to dwell in all-red.
- D. Comply with the following:
 - 1. Signal heads positioned over a road surface are mounted a minimum of 15 feet (4.6 m) from the bottom of the signal head to the top of the road surface.
 - 2. All other signal heads are mounted at a minimum of 8 feet (2.45 m) from the bottom of the signal head to the top of the ground surface.
 - 3. The flaggers at each end of the work area control the portable traffic signals. The flagger can only activate or extend the green indication.
 - 4. The yellow indication is approximately 4 seconds.
 - 5. The minimum green time is 20 seconds. The green time can be extended in 2.5 second intervals by the flagger to allow the entire traffic queue to travel through the flagging operation.
- E. In the event of a traffic signal malfunction or a continuous red flash mode, have flaggers perform on a 24-hour, 7 day a week basis until repairs are made and the traffic signals are fully functional.

09069.04 METHOD OF MEASUREMENT.

Measurement for Temporary Traffic Signals will be according to Article 2528.04, A, 4, of the Standard Specifications.

09069.05 BASIS OF PAYMENT.

Payment for Temporary Traffic Signals will be according to Article 2528.05, A, 4, of the Standard Specifications.