

Section 2550. Night Work Lighting

2550.01 DESCRIPTION.

Furnish, install, operate, maintain, move, and remove night time lighting to illuminate construction work areas for night work when construction activities (vehicles, equipment, or workers) are within 15 feet (4.6 m) of an open lane of traffic. Night work is defined as work performed between 30 minutes before sunset and 30 minutes after sunrise.

2550.02 LIGHTING PLAN.

- A. Submit a lighting plan to the Engineer for review no later than the Preconstruction Conference. On the lighting plan show:
 - The areas to be illuminated,
 - Type and layout of the lighting systems, and
 - Calculations of the averaged maintained lighting intensity.
- B. Provide night work lighting in areas where construction equipment or workers are active within 15 feet (4.6 m) of an open lane of traffic. Illuminate the work area and extend the lighting a minimum of 25 feet (7.6 m) in advance and beyond the work area. Meet the following requirements for lighting:
 - Minimum intensity of 5 foot candles (54 lux) over the entire area described above.
 - Sources positioned to not interfere with or impede traffic in any direction and not cause glare for motorists or spillover onto adjacent properties.
- C. Illumination may be accomplished by using a combination of portable lights, floodlights, equipment lights, roadway lights (temporary or existing), or other lighting methods that will provide the required minimum lighting intensity.
- D. The Engineer may require modifications to the lighting setup in order to fit field conditions.

2550.03 LIGHT METER.

Provide the Engineer one light meter (to be returned to the Contractor at the completion of night work) capable of measuring light intensity in foot candles (lux). Provide the Engineer instructions for operating the light meter

2550.04 TRAFFIC CONTROL.

- A. Ensure all vehicles, except ready mix trucks, hauling material to or from the work area during night work as described in Article 2550.01 display a minimum 16 inch by 48 inch (400 mm by 1200 mm) sign with the legend "DO NOT FOLLOW - INTO WORK AREA" as shown in Standard Road Plan the contract documents. Comply with the following requirements for the sign:
 - Orange with black lettering using Type VII (Iowa) sheeting.
 - Kept clean in order to maintain its visibility.
- B. Ensure all vehicles and equipment (except for hand operated equipment) operating or parked within 15 feet (4.6 m) of an open lane of traffic and all vehicles and equipment entering or exiting the work area display amber high intensity rotating, flashing, or oscillating lights.
- C. Place and remove all traffic control devices during daytime hours, when possible, unless specified otherwise in the contract documents.
- D. Continually review all traffic control devices, including monitoring of lights, to ensure proper installation and working order.

2550.05 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

All costs associated with furnishing, installing, operating, maintaining, moving, and removing night work lighting and other traffic control requirements required by this specification, are incidental to the lump sum bid price for Mobilization.