**WORK ZONE PRESENCE LIGHTING**

(10/14/19) (Rev. 5/10/2021)

**Description**

Furnish and install Work Zone Presence Lighting during nightly lane closures on multilane roadways with speed limits of 55 mph or greater.

**Materials**

Anti-glare lighting systems are required. Work Zone Presence Lighting shall be installed in accordance with the attached detail and the Manufacturer’s recommendations.

Supply a power source for each light to provide the light output as described in the chart below.

Each light unit shall be capable of providing a minimum of 14,000 lumens illuminating a minimum area of approximately 3,000 square feet. The light shall be capable of being elevated to a height of 14 feet above the pavement.

Each light unit support base or mounting stand shall have the capability of being leveled such that the light mast is plumb.

Provide Work Zone Presence Lighting listed on the NCDOT Approved Products List.

**Construction Methods**

Work Zone Presence Lighting is permitted to be prestaged (up to 1 hour prior for single lane closures and up to 2 hours prior for double or triple lane closures) along with other traffic control devices or installed within 1 hour after the necessary traffic control has been installed for the lane closure(s). At the end of the work night, the Work Zone Presence Lighting shall be removed within 1 hour before or after the lane closure(s) is removed.

Whenever possible, each light unit shall be placed on the outside paved shoulder, a minimum of 4 feet from the travel lane and spaced according to the chart below based on the amount of light output for each unit.

Work Zone Presence Lighting is permitted to supplement the Portable Construction Lighting inside the lane closure. At no time shall Work Zone Presence Lighting be used in lieu of Portable Construction Lighting when required.

If there is sufficient existing overhead lighting, Work Zone Presence Lighting may be eliminated as directed by the Engineer.

**Lighting Unit Installation Requirements**

The lighting units shall be installed in advance of the lane closure as shown on the attached detail and spaced according to the chart below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **AREA 1** | | **AREA 2** | |
| **Light Output**  **(Lumens)** | **Illuminated Fixture Area (Sq. Ft.)** | **# of Lights** | **Spacing\*** | **# of Lights** | **Spacing\*** |
| 14,000 - 35,000 | 4 | 6 | 640’ (16 skips) | 8 | 480’ (12 skips) |
| 35,001 - 59,999 | 5 | 5 | 800’ (20 skips) | 6 | 640’ (16 skips) |
| 60,000+ | 6+ | 4 | 1,000’ (25 skips) | 5 | 800’ (20 skips) |

\*Skips refer to traditional 10’ pavement marking lines with 30’ gaps.

Area 1: Begins 2,640’ downstream from CMS; Extends to just past 1st Lane Closure Sign

Area 2: Begins just past the 1st Lane Closure Sign; Extends to just past the last Lane Closure Sign

**MEASUREMENT AND PAYMENT**

*Work Zone Presence Lighting* will be measured and paid as the maximum number of lighting units satisfactorily placed, accepted by the Engineer, and in use at any one time during the life of the project.

Relocation, replacement, repair, removal, and maintenance of Work Zone Presence Lighting units will be incidental to the work of this section. No measurement or separate payment will be made for power generators, batteries, or other power supply devices.

**Pay Item Pay Unit**

Work Zone Presence Lighting Each

