

**SECTION 9.76
BARRICADE WARNING LIGHTS**

9.76.01--Description: This item shall include furnishing and maintaining designated type barricade warning lights on signs and barricades and elsewhere as ordered by the Engineer.

9.76.02--Materials: Barricade warning lights are portable, lens-directed, enclosed lights. The color of the light emitted shall be yellow. They may be used in either a steady-burn or flashing mode. Barricade warning lights shall be in accordance with the requirements of the ITE Standard for Flashing and Steady-Burn Barricade Warning Lights and the following table:

	Type A Low Intensity	Type B High Intensity	Type C Steady Burn
Less Directional Faces	1 or 2	1	1 or 2
Flash Rate per minute	55 to 75	55 to 75	Constant
Flash Duration ¹	10%	8%	Constant
Minimum Effective Intensity ²	4.0 Candelas	35 Candelas	— — — —
Minimum Beam Candelas	— — — —	— — — —	2 Candelas
Hours of Operation	Dusk to dawn	24 hrs. per day	Dusk to dawn

¹Length of time that instantaneous intensity is equal to or greater than effective intensity.

²These values must be maintained within a solid angle 9° on each side of the vertical axis and 5° above and 5° below the horizontal axis.

9.76.03--Construction Methods: Barricade warning lights shall be used as follows:

Type A low-intensity flashing warning lights shall be mounted on separate portable supports, on Class II barricades or on vertical channelizing devices.

Type B high-intensity flashing warning lights shall be mounted on the advance warning signs or on independent supports. Extremely hazardous site conditions within the construction area may require that the lights be mounted on Class II barricades, signs or other supports.

Type C steady-burn lights shall be used to delineate the edge of the traveled way on detour curves, on lane changes, on lane closures and on other similar conditions.

The Engineer shall determine the type of barricade warning lights to be used. Portable supports for barricade warning lights shall provide a minimum mounting height of 1 m to the bottom of the lens.

The Contractor shall furnish and securely fasten the units to signs, barricades and other objects in such numbers and for such lengths of time as the Engineer may order.

The Contractor shall maintain and relocate the units and, upon final removal, dispose of them.

Any barricade warning lights that are missing, damaged, defaced, or improperly functioning so that they are not effective, as determined by the Engineer and in accordance with the ATSSA guidelines contained in "Quality Standards for Work Zone Traffic Control Devices," shall be replaced by the Contractor at no cost to the State.

9.76.04--Method of Measurement: This work will be measured for payment by the number of calendar days that each individual unit is in place and in operation as herein before described, measured to the nearest day.

9.76.05--Basis of Payment: Barricade warning lights will be paid for at the contract unit price per day for the type barricade warning lights used, which price shall include all materials, equipment, tools, labor and work incidental to furnishing, maintaining, changing location, removing and disposing of the units.

Pay Item	Pay Unit
Barricade Warning Lights (Type)	DAY