
Special Provision to Special Specification 6068

Dynamic LED Curve Warning System



Special Specification 6068 "Dynamic LED Curve Warning System," is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 1., "Description," is voided and replaced by the following:

Fabricate, furnish and erect dynamic curve warning system consisting of chevron signs with light emitting diode (LED) lights embedded, solar panels for each sign, radar detection for each approach, communication transmitters and receivers. Dynamic curve warning system function is to warn and guide motorists through a curve once activated with radar by directing the chevrons to flash sequentially.

Article 2., "Materials." The third sentence of the second paragraph is voided and replaced by the following:

Provide reflective sheeting on chevron sign that meets AASHTO Type D or ASTM Type XI sheeting with anti-graffiti overlay.

Section 3.1., "Vehicle speed sensor activation," is voided and replaced by the following:

Mount a low power draw digital signal processing based radar on the lead LED chevron in the curve warning system. Ensure curve warning system is capable of detecting a compact vehicle within 300 feet of the chevron. Ensure the radar activates the blinker system and wirelessly signals the LED chevrons in the curve to sequentially turn on. House the radar and transmitter in a control box mounted on the lead LED chevron. LED chevrons in the system can flash in unison or sequentially depending on how the system is configured and flash duration is predetermined. The radar must provide real time vehicle detection (within 112 milliseconds of vehicle arrival).

Install each chevron sign as shown on plans and in accordance with D&OM-(3)-15A.

Article 5., "Measurement," is voided and replaced by the following:

This Item will be measured by each LED chevron or lead LED chevron. Each lead LED chevron shall have a transmitter that will communicate with other chevron signs in the curve. Each chevron shall have a receiver and will be paid for separately as each "LED Chevron." The Lead LED chevron will have the vehicle speed sensor. The lead LED chevron will be paid for separately as each "Lead LED Chevron."

Lead LED chevron sign will include cost of web-based device monitoring and control software. Software provides automated data analysis and reporting. Software also allows for data upload, incident detection, trend analysis, historic reviews, and interactive map with all similar devices.

Article 6., "Payment," is voided and replaced by the following:

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bids for "LED Chevron" and "Lead LED Chevron."

This price is full compensation for furnishing and installing complete LED chevrons/lead LED chevrons including sign connections and all hardware; attaching chevron signs to the supports; washing and cleaning the chevron signs; and equipment, materials, labor, tools, and incidentals. The price also includes testing of the curve warning system and making adjustments as needed. Price is full compensation for installing solar panels to ensure optimal recharging of batteries, solar powered batteries, solar powered batteries, interconnecting chevrons/lead chevrons so transmitter and receivers communicate with each other, to

the satisfaction of the Engineer. A minimum of one day (8 hr) of on-site training is included to train employees on setup of system, software installation, software control, and set up of alert notifications.

Installation of sign post and foundations will be paid for under Item 644, "Small Roadside Sign Supports and Assemblies."