



Wisconsin Department of Transportation

November 14, 2016

Division of Transportation Systems Development

Bureau of Project Development
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NOTICE TO ALL CONTRACTORS:

**Proposal #34: 6998-11-70
C Stevens Point, Country Club Drive
Hoover Road Rail Grade Separation
Local Street
Portage County**

**6998-11-71, WISC 2016 494
C Stevens Point, Country Club Drive
Hoover Road Rail Grade Separation
Local Street
Portage County**

Letting of December 13, 2016

This is Addendum No. 01, which provides for the following:

Special Provisions

Revised Special Provisions	
Article No.	Description
45	Rectangular Rapid Flashing Beacon System Hoover Rd & Industrial Park Rd, Item SPV.0105.41

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 01

6998-11-70/71

November 14, 2016

Special Provisions

45. Rectangular Rapid Flashing Beacon System Hoover Rd & Industrial Park Rd, Item SPV.0105.41

Replace entire article language with the following:

A Description

This special provision describes furnishing and installing an AC powered and hardwired Rectangular Rapid Flashing Beacon (RRFB) system in accordance to section 651 of the standard specifications, as directed by the engineer, and as hereinafter provided.

B Materials

B.1 General Requirements

Conform the RRFB to all applicable FHWA and MUTCD standards and guidelines, and meet or exceed the requirements specified in FHWA Memorandum IA-11, *Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons*, and all FHWA Official Interpretations for IA-11.

Furnish a crosswalk assembly with one light bar or with two light bars mounted back-to-back. See plans for whether assemblies require one light bar or two light bars. Provide three LED light arrays with each light bar: two rapidly and alternately flashing rectangular amber (vehicle) indications and one amber side-mounted (pedestrian) indication. Operate the system with one controller with remote hardwired light bars and pushbuttons. Provide a system capable of future operation with wireless communication between the push buttons, controller, and light bars.

Activate the RRFB system utilizing ADA compliant pedestrian push buttons that are hardwired. Synchronize the activation and deactivation of all indications.

B.2 Equipment Requirements

Furnish a complete RRFB system with single or multiple light bar assemblies. Each assembly shall consist of, but is not limited to, controller and electrical components (including wiring and solid-state circuit boards), and LED indications in a light bar. Include the following items:

1. System

- Operate the system on AC power from an electrical service with an applicable circuit breaker and with lightning suppression.
- When activated, all indications associated with a given crosswalk shall simultaneously commence operation within 120 msec, and shall cease operation at a predetermined time (programmable timeout). The time shall reset after any pedestrian actuation.
- The duration of the flash cycle (timeout) shall be programmable from a minimum of 5 second to 60 minutes, in increments of seconds.
- Individual components shall be independently replaceable, equipped with approved terminal strips or wire-end molded connectors.

2. RRFB Controller

- Solid-state, digital controller capable of operating the RRFB as specified.
- Capable of storing input count data in preset intervals, with downloadable capabilities.

- Replaceable independently of other components.
- Completely programmable, including but not limited to, flash pattern and duration.
- An on-board user interface that provides system diagnostics and allows system setting changes.

3. Enclosure

- A NEMA Type 3R aluminum enclosure intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water and damage from ice formation.
- Of sufficient size to house all equipment furnished under this special provision and for future equipment for wireless operation.
- Constructed from type 5052-H32 aluminum with a minimum thickness of 0.080".
- Vented to promote airflow for internal components. All vents and drains shall include screening to deter insects and foreign matter.
- Include a replaceable #2 Corbin traffic lock and keys.
- Utilize tamper-resistant stainless continuous steel hinges.
- Include a removable control panel to which all control circuit components mount.
- Utilize stainless steel mounting studs to accommodate bracket options

4. Power Supply

- Powered by 120 VAC to 12 VDC.
- The input voltage ranges from 120 to 240 volts.
- Of sufficient size to power all equipment installed with this special provision and any future wireless communication.

5. Light Housing and Indications

- A black colored light bar housing constructed of durable, corrosion-resistant powder-coated aluminum with stainless steel fasteners.
- Enclosed components shall be modular in design whereby any component can be easily replaced using common hand tools, without having to remove the housing from the pole.
- All mounting hardware required for mounting the light bar housing shall be provided and universal to multiple poles.
- Yellow indications of a minimum size of approximately 5" wide x 2" high.
- A pedestrian LED indication shall be side-mounted in the light bar housing: assembly to be mounted so it is directed toward, and visible to, pedestrians in the crosswalk.
- The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the assembly.
- The light intensity of the yellow indications shall meet the minimum specifications of the Society of Automotive engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005 for Class 1 peak luminous intensity (candelas).

6. Sign

- All signs are to be supplied and installed under separate bid items. Construct RRFB assemblies to allow the appropriate space for the installation of the signs in the field as shown in the plans.
7. Hardware
 - Furnish all hardware, connections, and other miscellaneous items to make the RRFB system fully operational.
 8. The following items are to be supplied and installed under a separate bid item:
 - Pushbutton
 - Pedestal Pole
 - Traffic Signal Standard
 - Concrete Base

B.3 Warranty

Provide a minimum of a three-year warranty from the date of activation and acceptance by the engineer. Provide service information to the purchaser, consisting of at least parts manuals and operational/maintenance manuals.

C Construction

The RRFB system consists of multiple assemblies to be constructed by the contractor as shown on the plans. Assemble RRFB with pedestrian activation per the manufacturer's recommendations. Mount the controller cabinet, signage, light bar, and push buttons to the traffic signal standards as shown on the plans and per the manufacturer's requirements. Mount the Pedestrian Indication LEDs to be visible to pedestrians in the crosswalk, and to flash concurrently with the vehicle indications to confirm that the RRFB is in operation.

Program the controller and make the RRFB system fully operational. The City will provide the flash operation timings. Instruct the City in programming and operation of the controller.

D Measurement

The DEPARTMENT will measure Rectangular Rapid Flashing Beacon System Hoover Rd & Industrial Park Rd as a single lump sum unit of work for each location, acceptably completed.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.41	Rectangular Rapid Flashing Beacon System Hoover Rd & Industrial Park Rd	LS

Payment is full compensation for furnishing and installing a fully operational RRFB system including wire and all necessary mounting hardware and appurtenances; and for shop drawings, manuals, and warranty.

END OF ADDENDUM