



# Wisconsin Department of Transportation

March 5, 2015

## Division of Transportation Systems Development

Bureau of Project Development  
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### NOTICE TO ALL CONTRACTORS:

**Proposal #36: 7220-01-71, WISC 2015 150**  
**C Menomonie, Broadway Street**  
**24<sup>th</sup> Avenue – 11<sup>th</sup> Avenue**  
**STH 25**  
**Dunn County**

**7600-02-70**  
**C Menomonie, Stout Road**  
**Red Cedar Intersection**  
**USH 12**  
**Dunn County**

**7600-02-71, WISC 2015 151**  
**C Menomonie, Broadway Street**  
**Tainter Street – Wolske Bay Rd**  
**USH 12**  
**Dunn County**

### Letting of March 10, 2015

This is Addendum No. 2, which provides for the following:

#### Special Provisions

Revised Special Provisions	
Article No.	Description
38	Furnish and Install Poles Type 12 Item SPV.0060.21, Furnish and Install Monotube Arms 40-FT Item SPV.0060.22
44	Rectangular Rapid Flashing Beacon System STH 25 and 17 <sup>th</sup> Avenue Item SPV.0105.03 Rectangular Rapid Flashing Beacon System STH 25 and 10 <sup>th</sup> Avenue Item SPV.0105.04
48	Bike Box Pavement Marking Item SPV.0105.13

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. 2**

**7220-01-71, 7600-02-70, 7600-02-71**

**March 5, 2015**

**Special Provisions**

- 38. Furnish and Install Poles Type 12, Item SPV.0060.21; Furnish and Install Monotube Arms 40-FT, Item SPV.0060.22.**

*Replace B Materials with the following:*

**B Materials**

Furnish poles, arms, anchor bolts and hardware in accordance to the pertinent provisions of standard spec 657.2 and hereinafter provided.

Furnish monotube poles type 12 including anchor bolts, hardware and top templates.

Furnish monotube arms 40-ft including all miscellaneous hardware.

All monotube materials, hardware, bolts and miscellaneous hardware shall have accepted equipment certifications on file with the Department. Monotube equipment shall be compatible with concrete bases included in the contract.

- 44. Rectangular Rapid Flashing Beacon System STH 25 and 17<sup>th</sup> Avenue Item SPV.0105.03; Rectangular Rapid Flashing Beacon System STH 25 and 10<sup>th</sup> Avenue Item SPV.0105.04.**

*Remove entire article language with the following:*

**A Description**

This work shall consist of furnishing and installing a solar powered rectangular rapid flashing beacon (RRFB) system consisting of multiple assemblies as described herein and as shown in the plans. Each assembly shall be solar powered and pedestrian activated. The assemblies shall be wirelessly controlled and multiple units shall be synchronized.

**B Materials**

Furnish a complete RRFB system with multiple assemblies. Each assembly may consist of, but is not limited to, light indications, wireless communication equipment, solar power equipment, and electrical components (wiring, solid-state circuit boards, etc). An assembly may include the following items:

**Light Indications:**

- Each indication shall be a minimum size of approximately 7" wide x 3" high.
- Two indications shall be installed on an assembly facing each direction of approaching vehicular traffic. The two indications shall be aligned horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of approximately 7" measured from inside edge of one indication to inside edge of second indication.
- A single indication shall be installed on an assembly facing in the direction of approaching pedestrian traffic to serve as a confirmation for the pedestrian that the system has been activated.
- 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 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.

Contractor shall furnish a Certificate of Compliance for this standard. Specifically, the certificate should state that the indications: "Meet photometry of jurisdictional compliance standard(s) identical to: 2 J595 Class 2 Nov08 Yellow Peak Cd and 2 J595 Class 1 Nov08 Yellow Cds/Min.

- Each indication shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.
- All exposed hardware shall be anti-vandal.

**Sign:**

- All signs shall be supplied and installed under a separate bid item. However, the assemblies must be constructed to allow the appropriate space for the installation of the signs in the field.

**Control Circuit:**

- The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs and flash pattern shall be completely programmable.
- The flashing output shall be the wig-wag plus simultaneous (WW+S) pattern in accordance with FHWA official ruling number 4(09)-41 (I).
- Flash rates with the frequencies of 5 to 30 flashes/second shall not be used to avoid inducing seizures.
- When activated, the RRFB shall operate for a predetermined interval based on MUTCD procedures for timing of pedestrian clearance times for pedestrian signals. Coordinate with the City of Menomonie for this interval.
- The control circuit shall be installed in an NEMA 3R (minimum) rated enclosure.
- All circuit connectors shall be rated dust proof, and protected from temporary immersion in water.

**Battery:**

- Battery unit shall be rated for operation in northern climates and capable of between 200-500 daily actuations.
- All batteries shall be sealed in a plastic film to provide moisture and corrosion resistance.
- All batteries shall operate between the temperatures of -20°C and +60°C.
- All battery connectors shall be dust proof, and protected from temporary immersion in water.

**Wireless Radio:**

- Radio shall integrate with communication of RRFB system control circuit to activate light indications from pushbutton input.
- The Radio shall synchronize all of the remote light indications so they will turn on within 120msec of each other and remain synchronized through-out the duration of the flashing cycle.
- Radio systems shall operate from 3.6 vdc to 15vdc

**Solar Panel:**

- The solar panel shall be sized according to the weather and field conditions to maximize performance.
- The solar panel shall be mounted to an aluminum plate and bracket at an angle of 45°- 60° to provide maximum output.
- All fasteners used shall be anti-vandal.
- All solar panel connectors shall be dust proof, and protected from temporary immersion in water.

**Pushbutton:**

- The pushbutton shall be furnished and installed in accordance to the pertinent provisions in standard spec 658 under a separate bid item.

**Pedestal Shaft:**

- The pedestal shaft shall be furnished and installed in accordance to the pertinent provisions in standard spec 657 under a separate bid item.

**Pedestal Base:**

- The pedestal base shall be furnished and installed in accordance to the pertinent provisions in standard spec 657 under a separate bid item.

**Concrete Base:**

- The concrete base and anchor bolts shall be furnished and installed in accordance to the pertinent provisions in standard spec 654 under a separate bid item.

**Hardware:**

- Furnish all hardware, connections, etc to make the RRFB system fully operational.

**C Construction**

The RRFB system will consist of multiple assemblies to be constructed by the contractor as shown on the plans. Make the RRFB system fully operational.

**D Measurement**

The department will measure Rectangular Rapid Flashing Beacon System [Location] as a single lump sum unit of work for each location, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Rectangular Rapid Flashing Beacon System STH 25 and 17 <sup>th</sup> Avenue	LS
SPV.0105.04	Rectangular Rapid Flashing Beacon System STH 25 and 10 <sup>th</sup> Avenue	LS

Payment is full compensation for furnishing and installing a fully operational RRFB system.

**48. Bike Box Pavement Marking Item SPV.0105.13.**

*Replace B Materials with the following:*

**B Materials**

In accordance to the plans and standard spec 647.2 and as hereinafter provided.

Furnish green pavement marking materials in accordance to the FHWA's "Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14) – April 15, 2011. Furnish non-skid additives consisting of clean, dry silica sand, 100% passing the #40 screen.

END OF ADDENDUM