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Specifications Request Form

Created By: Joshua Verastique

Created Date: 05/10/2024

Form ID: FM00000039989

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06/19/2024

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Controlling Project ID:

XXXX-XX-XXX

District/Division:

Traffic Safety Division

Specification Book Year:

2024

Estimated Let Date:

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Approved Let Date:

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Specification Request Form Type

\* Form Type:

Statewide

☒ New

☐ Identical

Deadline Date:

MM/DD/YYYY

\* Project Type:

Construction and Maintenance

\* Funding Type:

Federal and Non-Federal

County:

Select item

Specification

☐ Replacement

☒ Required

☐ Optional

Proposed Specification Code:

6XXX

Title:

DEAD END ROADWAY BARRICADE

☐ Reference Items

Description

☐ 644

SMALL ROADSIDE SIGN ASSEMBLIES

Remove

New Item

☐ Bid Code / Specification

Description

Measurement

Comment

☐ 6XXX-XXXX

DEAD END ROADWAY BARRICADE

LF Linear Feet

Remove

New Item

Special Provision

☐ Special Provision

Title

Description

Replacing

Existing Special Provis

Remove

New Item

000 Provision

☐ 000 Provision

Title

Replacing

Existing 000 Provision

Remove

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\* Change Summary:

Updated TRF division name, otherwise identical to 2014 Statewide Special Spec 6120 DEAD END ROADWAY BARRICADE.

Comments:

Spec Committee No. 6XXX-20245-4

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## Special Specification 6XXX

### Dead End Roadway Barricade

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#### 1. DESCRIPTION

Furnish and install dead end roadway barricades at the locations shown on the plans, in accordance with this specification, or as directed.

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#### 2. CONSTRUCTION

Construct and install dead end roadway barricades as detailed on Traffic Safety Division Standard Sheet "Delineator and Object Marker Placement Details" (D&OM), or as shown on the plans.

Construct and install signs and chevrons, when shown on the plans, in accordance with Traffic Safety Division Standard Sheet "Delineator and Object Marker Placement Details" (D&OM), or as shown on the plans.

---

#### 3. MEASUREMENT

This Item will be measured by the foot of dead end roadway barricade assembly complete in place.

---

#### 4. PAYMENT

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 bid for "Dead End Roadway Barricade." This price is full compensation for furnishing materials including object markers; and for labor, tools, equipment, hauling and incidentals necessary to complete the work.

Signs, sign supports, and chevrons, when shown on the plans, will be paid for under Item 644, "Small Roadside Sign Assemblies."



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## Controlling Project ID:

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## Estimated Let Date:

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## Specification Request Form Type

## \* Form Type:

Statewide



New



Identical

## Deadline Date:

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## \* Project Type:

Construction and Maintenance

## \* Funding Type:

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## County:

Select item



## Specification



Replacement



Required



Optional

## Proposed Specification Code:

6XXX

## Title:

LED ROADSIDE SIGN

Remove

+ New Item

<input type="checkbox"/> Reference Items	Description
<input type="checkbox"/> 636	SIGNS
<input type="checkbox"/> 644	LED ROADSIDE SIGN

Remove

+ New Item

## Bid Code

Remove

+ New Item

<input type="checkbox"/> Bid Code / Specification	Description	Measurement	Comments
<input type="checkbox"/> 6XXX-XXXX	LED ROADSIDE SIGN	EA Each	

Remove

+ New Item

## Special Provision

Remove

+ New Item

<input type="checkbox"/> Special Provision	Title	Description

## Special Specification **62276XXX**

### Solar Powered LED Roadside Sign



#### 1. DESCRIPTION

Fabricate, furnish and install ~~solar-powered light emitting diode (LED), embedded~~ signs consisting of embedded LED lights placed along the border of the sign, ~~and solar panels and batteries for each sign.~~  
~~Function of This solar LED embedded roadside sign lights function is to flash in order to enhance the sign to draw the road user/motorist's attention to the message of the roadway sign.~~

#### 2. MATERIALS

Furnish and construct materials in accordance with the following:

- Item 636, "Signs,"
- ~~Item 643, "Sign Identification Decals," and~~
- Item 644, "Small Roadside Sign Supports and Assemblies."

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Provide signs that meet the TMUTCD. Provide sign substrate that meets Department Material Specification DMS-7110. Provide ~~sign~~ reflective ~~sign~~ sheeting ~~and sign substrate thickness~~ as shown on the plans and in accordance with Traffic ~~Operations-Safety~~ Division's Typical Sign Requirements (TSR) standard sheets. Provide sign with LED lights embedded along the border of the sign. Provide ~~high-powered 1-W~~ LEDs wired in a manner that all LEDs continue to flash in the event of failure of an individual LED. ~~Ensure sSign must~~ outputs ~~550,000 milli~~candelas ~~minimum~~ at daytime peak ~~to ensuringmake certain~~ sign is daylight visible. ~~Provide solar-powered LED roadside sign, except when plans show that sign will be powered by electrical service.~~

Provide LEDs ~~rated to operate at least 100,000 hrs~~ that have dimming capabilities and automatically adjust flash brightness to varying light conditions. ~~LEDs will be rated to operate at least 100,000 hr.~~ Provide solar panels and batteries sized to allow the system to work 24 hours a day, 7 days a week. ~~Enusre b~~Batteries ~~must~~ have a 5 yr. lifespan while operating 24 hr. per day. ~~Install b~~Batteries ~~must be installed~~ in a box mounted on a pole underneath the solar panel as per manufacturer's recommendations.

#### 3. CONSTRUCTION

Install signs in accordance to Item 644, "Small Roadside Sign Assemblies."

#### 4. WARRANTY

The LED lighting system as a whole will have a minimum ~~52~~ yr. warranty from the time of installation and acceptance of the system. Manufacturer will ship replacement parts at no cost as required during ~~52~~ yr. warranty period, except when installation has been damaged by outside forces.

#### 5. MEASUREMENT

This Item will be measured by each ~~solar-powered~~ LED roadside sign.

6. **PAYMENT**

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 bid for "Solar-Powered LED Roadside Sign."

This price is full compensation for furnishing and installing complete solar-powered LED signs including sign connections and all hardware; attaching signs to the supports; washing and cleaning the signs; testing of the LED sign and making adjustments as needed; installing solar panels to ensure optimal recharging of batteries and solar powered batteries to the satisfaction of the Engineer; and all equipment, materials, labor, tools, and incidentals.

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

The roadside sign assembly (excluding the solar powered LED sign) and foundation will be paid for under Item 644, "Small Roadside Sign Assemblies."



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Controlling Project ID:

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\* Form Type:

Statewide



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\* Project Type:

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\* Funding Type:

Federal and Non-Federal

County:

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[- Specification](#)

☐ Replacement



Required



Optional

Proposed Specification Code:

6XXX

Title:

REMOVE OR RELOCATE HIGH MAST LIGHTING ASSEMBLIES

[x Remove](#)

[+ New Item](#)

<input type="checkbox"/> Reference Items	Description
<input type="checkbox"/> 416	▼ DRILLED SHAFT FOUNDATIONS
<input type="checkbox"/> 432	▼ RIPRAP
<input type="checkbox"/> 445	▼ GALVANIZING
<input type="checkbox"/> 449	▼ ANCHOR BOLTS
<input type="checkbox"/> 613	▼ HIGH MAST ILLUMINATION POLES
<input type="checkbox"/> 614	▼ HIGH MAST ILLUMINATION ASSEMBLIES
<input type="checkbox"/> 616	▼ PERFORMANCE TESTING OF LIGHTING SYSTEMS
<input type="checkbox"/> 618	▼ CONDUIT
<input type="checkbox"/> 620	▼ ELECTRICAL CONDUCTORS
<input type="checkbox"/> 624	▼ GROUND BOXES
<input type="checkbox"/> 628	▼ ELECTRICAL APPURTEANCES

[x Remove](#)   [+ New Item](#)

[- Bid Code](#)

[x Remove](#)

[+ New Item](#)

<input type="checkbox"/> Bid Code / Specification	Description	Measurement	Comments
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# Special Specification 6019

## Remove or Relocate High Mast Lighting Assemblies



### 1. DESCRIPTION

Remove or relocate high mast lighting assemblies in accordance with the details shown on the plans and the requirements of this Specification. A high mast lighting assembly consists of a high mast illumination pole, high mast illumination assembly, and light fixtures.

- 1.1. **Removal.** Remove existing high mast lighting assembly.
- 1.2. **Relocation.** Relocate existing high mast lighting assembly.

### 2. MATERIALS

Reuse existing pole and ring. Provide new materials that comply with the details shown on the plans, the requirements of this Specification, and the pertinent requirements of the following Items.

- Item 416, "Drilled Shaft Foundations"
- Item 432, "Riprap"
- Item 445, "Galvanizing"
- Item 449, "Anchor Bolts"
- Item 613, "High Mast Illumination Poles"
- Item 614, "High Mast Illumination Assemblies"
- Item 616, "Performance Testing of Lighting Systems"
- Item 618, "Conduit"
- Item 620, "Electrical Conductors"
- Item 624, "Ground Boxes"
- Item 628, "Electrical Services"

### 3. CONSTRUCTION

Perform the work in conformance with the requirements of this Specification. Use safe construction and operating practices in conformance with recommendations of the NEC and the OSHA.

Use established industry and utility safety practices when removing or relocating poles or luminaires located near overhead or underground utilities. Consult with the appropriate utility company before beginning work.

- 3.1 **Removal.** Always maintain safe operating practices. Obtain approval for the method of removal before beginning work. Remove luminaires from the ring before removing the pole from the foundation. If required, re-route the conductors in the ground box around the existing foundations and perform necessary splicing to re-energize the circuit. Remove the high mast pole from the foundation in such a manner to avoid damage or injury to surrounding objects or individuals. After removal, separate the pole at the slip-fitted connections. If the pole cannot be separated, transport the complete pole or, at the Contractor's option, partially separate it to make the pole transportable. Unless otherwise shown on the plans, remove abandoned concrete foundations and riprap, including steel, to 2 ft. below the finished grade. Cut off and remove steel protruding from the remaining concrete. Backfill with like material equal in composition and density to the surrounding area and replace surfacing with like material to an equivalent condition.

The pole, ring, and luminaires removed become the property of the Contractor, unless otherwise shown on the plans. Transport removed items from the Department's right of way as soon as possible or as directed.

- 3.2 **Relocation.** Always maintain safe construction and operating practices. Obtain approval for the method of relocation before beginning work. Coordinate placement of anchor bolts in new foundation with bolt holes on high mast illumination pole base plate so that the reference line is parallel to the roadway centerline. If required, re-route the conductors in the ground box around the existing foundations and perform necessary splicing to re-energize the circuit. Unless otherwise shown on the plans, remove abandoned concrete foundations, including steel, to 2 ft. below the finished grade. Cut off and remove steel protruding from the remaining concrete. Backfill with like material equal in composition and density to the surrounding area and replace surfacing with like material to an equivalent condition.

Coat anchor bolt threads and tighten anchor bolts in accordance with Item 449.

Schedule work so that the pole must be out of service for a minimum amount of time. Carefully remove the high mast illumination pole from the existing foundation. Prevent scarring, marring, or other damage to the high mast pole or high mast illumination assembly. Place temporary slings on the pole to prevent slippage in the pole sections. Tighten slings enough to prevent slippage from damaging winch cable or secure the high mast ring to ring support member. Accept responsibility for damage caused to the high mast illumination pole and the high mast illumination assembly. Repair or replace damaged components at no additional cost to the Department. Repair damaged galvanizing in accordance with Section 445.3.5., "Repairs Coating Thickness." Move high mast poles to locations shown on the plans or as directed. Construct new foundations in accordance with Section 613.3.4.1., "Foundations." Install relocated poles on new foundations in accordance with Section 613.3.4.3., "Pole Installation." After the high mast illumination pole is installed at the new location, check, and orient the high mast illumination fixtures as directed.

Upon relocating the high mast lighting assembly, ensure the complete system is in working condition. Final acceptance must not be made until the high mast lighting assembly has operated satisfactorily for a period of 14 days in accordance with Item 616.

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#### 4. MEASUREMENT

This Item will be measured as each high mast lighting assembly removed or relocated.

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#### 5. PAYMENT

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 bid for "Remove High Mast Lighting Assembly" or "Relocate High Mast Lighting Assembly" of the types specified.

New drilled shaft foundations will be paid for under Item 416. New concrete riprap placed around foundations will be paid for under Item 432. New LED fixtures will be paid for under Item 614. New conduit will be paid for under Item 618. New electrical conductors, except the conductors internal to the pole, will be paid for under Item 620. New ground boxes will be paid for under Item 624. New electrical services will be paid for under Item 628. The Department will pay for electrical energy consumed by the lighting system.

- 5.1 **Removal.** This price is full compensation for removing, salvaging, and disassembling the high mast lighting assembly (ring, luminaires, and pole); removing the poles from the foundations; removing existing foundations, backfilling, and compacting; re-routing the conductors in the ground box, performing necessary splicing to re-energize the circuit, and transporting poles and other associated materials; disposal of unsalvageable material; and for furnishing any other materials, labor, tools, equipment, and incidentals.
- 5.2 **Relocation.** This price is full compensation for salvaging, preparing, and relocating the existing conduit or duct cable; removing, disassembling, relocating, reinstalling, connecting, and testing high mast illumination assemblies; removing existing foundations; furnishing and installing new anchor bolts, lamps, connections, and new conductors internal to the pole and assembly; replacement of damaged components; disposal of unsalvageable material; and for furnishing any other materials, labor, tools, equipment, and incidentals.





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## Specification Request Form Type

## \* Form Type:

Statewide

☐ New☒ Identical

## Deadline Date:

MM/DD/YYYY



## \* Project Type:

Construction and Maintenance

## \* Funding Type:

Federal and Non-Federal

## County:

Select item

## Specification

## Existing Specification Code:

6013

## Title:

PREPARATION OF EXISTING GROUND BOXES AND MANHOLES

## Reference Items:

432,440,465,624

## Bid Code

Remove + New Item

Bid Code / Specification	Description	Measurement	Comments

Remove + New Item

## Special Provision

Remove + New Item

Special Provision	Title	Description

Remove + New Item

## 000 Provision

Remove + New Item

000 Provision	Title	Replacing	Existing 000 Provision

# Special Specification 6013

## Preparation of Existing Ground Boxes and Manholes



### 1. DESCRIPTION

Prepare ground boxes or manholes; replace ground boxes or manholes, when necessary; replace damaged ground box or manhole covers; adjust ground boxes; adjust ground box or manhole covers; and install cable racks in ground boxes or manholes.

### 2. MATERIALS

Provide new materials that comply with the plans, this Item, and the pertinent requirements of the following Items.

- Item 432, "Riprap"
- Item 440, "Reinforcement for Concrete"
- Item 465, "Junction Boxes, Manholes and Inlets"
- Item 624, "Ground Boxes"

Provide heavy-duty, nonmetallic, noncorrosive cable racks that can support a minimum dead load of 300 lb. Ensure cable racks are resistant to the effects of oils, hydrocarbons, common esters, ketones, ethers, or amides. Ensure cable racks are adjustable between 8 in. and 14 in. wide. Do not provide grounding or insulators for cable racks.

### 3. CONSTRUCTION

Check existing ground boxes.

- 3.1. **Preparation of Ground Box and Manhole.** Remove silt and debris from ground boxes or manholes before installing cable.

- 3.2. **Installation of Ground Box or Manhole.** Furnish new ground boxes or manholes as directed. Install ground boxes or manholes as shown on the plans or as directed.

Backfill disturbed surface with material equal in composition and density to the surrounding area. Replace surfacing material with similar material to an equivalent condition.

- 3.3. **Installation or Adjustment of Ground Box or Manhole Covers.** Remove, dispose of, and install ground box or manhole covers as shown on the plans or as directed. Adjust ground box or manhole covers as shown on the plans or as directed. Adjustment may include welding, raising, or lowering.

Backfill disturbed surface with material equal in composition and density to the surrounding area. Replace surfacing material with similar material to an equivalent condition.

- 3.4. **Installation of Junction Box.** Locate conduit fittings in conduits carrying fiber optic cables. Replace the conduit fitting and associated section of conduit with a junction box. Install junction boxes as shown on the plans.

- 3.5. **Installation of Cable Rack Assembly.** Install cable racks to permit coiling of conductors or cables without violating the manufacturer's minimum bending radius. Install two cable rack supports and four adjustable levels on each support, at minimum, on each wall of the ground box or manhole as shown on the plans or as directed. Anchor the cable rack support permanently to the ground box wall with mechanical or

powder-actuated fasteners. Use fasteners with an ultimate pullout strength of at least 2,500 lb. and ultimate shear strength of at least 3,000 lb. Provide enough cable supports for the number of conductors or cables coiled or passing through the ground box or manhole as shown on the plans or as directed.

- 3.6. **Adjustment of Ground Boxes.** Adjust ground boxes to meet new elevation of surface as shown on the plans or as directed. Remove existing concrete apron before adjustment, as necessary. Adjust length of conduit and conductors as needed. Backfill disturbed surface with material equal in composition and density to the surrounding area. Replace surfacing material with similar material to an equivalent condition.

Protect existing conduits and conductors inside the ground box from damage. Replace ground box, conductor, or ground box cover damaged by the Contractor.

Construct concrete aprons (as required) as shown on the plans and in accordance with Item 432 and Item 440.

Accept ownership of any unsalvageable materials, and dispose of them in conformance with federal, state, and local regulations.

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#### 4. MEASUREMENT

This Item will be measured by each cable rack, ground box, or manhole installed or prepared; by each ground box or manhole cover replaced or adjusted; and by each ground box adjusted.

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#### 5. PAYMENT

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 bid for "Manhole (Install)," "Ground Box (Install)," "Manhole (Prepare)," "Ground Box (Prepare)," "Cover (Replace)" of the sizes specified, "Cover (Adjust)," "Ground Box (Adjust)," "Ground Box with Apron (Adjust)" and "Cable Rack Assembly (Install)." This price is full compensation for cleaning and testing ground boxes and manholes; furnishing and installing ground boxes, manholes, and cable racks; excavating and backfilling; adjusting ground box and manhole covers; adjusting ground boxes and installing new concrete aprons (when required); disposing of unsalvageable material; and equipment, materials, labor, tools, and incidentals.