# **MEPNN Supplier Scouting Opportunity Synopsis**

Section 1: General Information			
Scouting Number	2025-328		
Item to be Scouted	Traffic Signal Controller- Accessory Components		
Days to be scouted	30		
Response Due By	10/03/2025		
Description	Multiple products are included with this scouting request; all products are accessory components used within a traffic control cabinet. Manufacturers may		
Section 2: Technical Information			
Type of supplier being sought	Flasher Type 1 Flasher Type 3		
Reason	BiAND-ASwitch Type 1		
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Malfunction Management Unit Type 16 Electronies componist Broducts must meet FDOT Standard Specification requirements see attached file. Education Power Standards (No Montrollers) are also applicable, as a power of the file of the confict of the		
Provide dimensions / size / tolerances / performance specifications for the item	Electronics components: Products must meet FDOT Standard Specification requirements; see attached file. Industry standards (NEMA and CALTRANS TEES) are also applicable, as shown in the FDOT specifications.		
List required materials needed to make the product, including materials of product components	Electronics components: Products must meet FDOT Standard Specification requirements; see attached file. Industry standards (NEMA and CALTRANS TEES) are also applicable, as shown in the FDOT specifications.		
Are there applicable certification requirements?	Yes		
Details	NEMA: National Electrical Manufacturers Association CALTRANS: California Department of Transportation, Transportation Electrical Equipment Specifications 2020 See detailed requirements in the FDOT Standard Specifications; see attached file.		
Are there applicable regulations?	Yes		
Details	Product must meet Federal BABA requirements, as well as FDOT Standard Specification requirements; see attached file.		
Are there any other stndards, requirements, etc.?	No		
Additional Technical Comments			

Section 4: Business Information		
Estimated potential business volume	Estimated 200 annually	
Estimated target price / unit cost information (if unavailable explain)	\$1,000 per each on average	
When is it needed by?	5 months	
Describe packaging requirements	No packaging requirements. Best available. Delivered undamaged. Specifics discussed in negotiation.	
Where will this item be shipped?	Florida	

Additional Comments	
Is there other information you would like to include?	Agency providing funds: Florida Department of Transportation Name/POC for BABA related questions: Melissa Hollis or Karen Byram Email address of contact: Melissa.Hollis@dot.state.fl.us or Karen.Byram@dot.state.fl.us

# SECTION 678 TRAFFIC CONTROLLER ACCESSORIES

#### 678-1 Description.

Furnish and install traffic controller accessories as shown in the Plans. Meet the requirements of Section 603.

#### 678-2 Materials.

Meet the following requirements:

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Conflict Monitor*	Section 995
Malfunction Management Unit*	Section 995
Power Supply*	Section 995
Load Switch*	Section 995
Flasher*	Section 995
Flash Transfer Relay	NEMA TS2-2021, Section 6.4
Model 206L Power Supply Unit*	Section 995
Model 208 Monitor Unit*	Section 995
Model 210 Monitor Unit*	Section 995
Power Distribution Assembly*	Section 995
Input File*	Section 995
Model 430 Flash Transfer Relay	CALTRANS TEES 2020, 6.4.5.1.5
Time Switch*	Section 995
*Use products listed on the Department	nt's APL.

#### 678-3 Installation Requirements.

**678.3.1 General:** Install all traffic controller accessories in accordance with the manufacturer's recommendations. Terminate wires on the appropriate terminal strips in the controller cabinet with insulated terminal lugs. Neatly bundle, secure, and identify all wiring and cables.

678-3.2 Time Switch: Mount time switches on the inside wall of the controller cabinet to allow easy access for programming the switch. Ensure that the load current on the output circuits of the time switch does not exceed 3 A at  $115 \text{ V}_{AC}$ . Whenever time switches are used for transferring a controller assembly to and from flashing operation, wire the controller cabinet for uniform code flashing as specified in Section 676.

#### 678-4 Basis of Payment.

No separate payment will be made for traffic controller accessories. Include the cost in the Contract unit price for the traffic controller assembly.

## SECTION 995 TRAFFIC CONTROL SIGNAL AND DEVICE MATERIALS

### 995-1 Description.

**995-1.1 General:** This Section governs the requirements for all permanent traffic control signals and devices. All equipment shall be permanently marked with manufacturer name or trademark, part number, and date of manufacture or serial number.

995-1.2 Product Acceptance: All specified products shall be items listed on the Department's Approved Product List (APL), unless otherwise noted below. Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and include the following documentation. A separate application must be submitted for each product to be evaluated, showing that the product meets the applicable requirements.

Table 995-1		
Documentation	Requirements	
Assembly and Installation Instructions	Include any surface preparations, assembly/installation instructions, operation manual, troubleshooting guides, and repair procedures.	
Independent Laboratory Test Results	Product meets requirements of this Section.	
Product Label Photo	Labeling shows the manufacturer's name, trademark, and product model number/name. Label shows the date of manufacture and/or the manufacturer's batch number. Additional label requirements, as listed within this Section.	
Product Photo	Displays the significant features of the product as required in this section.	
Compliance Matrix	Include completed compliance matrix at <a href="https://www.fdot.gov/traffic/traf-sys/product-specifications.shtm">https://www.fdot.gov/traffic/traf-sys/product-specifications.shtm</a>	
Manufacturer's Product Specifications	Include product specifications showing electrical requirements, voltages, etc.	
Product Drawings or Cut Sheet	Show mounting points, mechanical details, block diagrams, schematics, etc.	
Parts List	List major parts and field serviceable components.	

#### 995-1.3 Abbreviations: The following abbreviations are used in this Section:

Acrylonitrile Butadiene Styrene (ABS)

Alternating Current (AC)

Direct Current (DC)

Global Positioning System (GPS)

Hypertext Transfer Protocol (HTTP)

Institute of Transportation Engineers (ITE)

Internet Protocol (IP)

Local Area Network (LAN)

Network Time Protocol (NTP)
Telecommunications Industry Association (TIA)
Uniform Code Flash (UCF)
Uniform Resource Locator (URL)
Ultraviolet (UV)

#### 995-12 Traffic Controller Accessories.

**995-12.1 General:** Traffic controller accessories must meet the industry standards in Table 995-8 as well as the environmental requirements of those standards.

Table 995-8		
Traffic Controller Accessory Standards		
Device	Standard	
Conflict Monitor	NEMA TS1-1989, Section 6	
Malfunction Management Unit	NEMA TS2-2021, Section 4	
Power Supply	NEMA TS2-2021, Section 5.3.5	
Load Switch	NEMA TS2-2021, Section 6.2	
Flasher	NEMA TS2-2021, Section 6.3	
Bus Interface Unit	NEMA TS2-2021, Section 8	
Model 206L Power Supply Unit	CALTRANS TEES, 2020, 3.4	
Model 208 Monitor Unit	CALTRANS TEES, 2020, 3.5	
Model 210 Monitor Unit	CALTRANS TEES, 2020, 3.6	
Power Distribution Assembly	CALTRANS TEES, 2020, 6.4.3	
Input File	CALTRANS TEES, 2020, 6.4.4	

**995-12.2 Time Switch:** Ensure the time switch is a 24-hour timer which controls the daily switching operation of circuit contacts at preselected times.

Type 1 time switches must contain a single circuit contact and a solid state timer with at least 48 programmable on and off times.

Type 2 time switches must contain two circuit contacts and a solid state timer with at least three independently programmable on and off times per circuit.

Type 3 time switches must contain three circuit contacts and a solid state timer with at least three independently programmable on and off times per circuit.

995-12.2.1 Timing: Solid state timing must be accomplished by digital circuits utilizing the power line 60 Hz frequency as the normal timing reference or GPS Time Sync. Time-of-day must be settable and displayed in maximum increments of one minute.

**995-12.2.2 Programming:** Programming for selection of contact openings or closures must be provided in maximum increments of one minute for Types 1 through 3 time switches.

A day omit device or circuit must be provided with Types 1 through 3 time switches to omit the programmed switching operation for any combination of up to three days of the week. A positive means of indicating the day of the week must be provided with Types 1 through 3 time switches.

**995-12.2.3 Reserve Power:** Type 1, Type 2, and Type 3 solid state time switches must be provided with a battery backup circuit which maintains time during a power failure of up to 10 hours. The timing accuracy of battery backup circuits during a power failure must be plus or minus 0.5 seconds.

- 995-12.2.4 Output Circuit Contacts: Each output circuit contact must be rated for a 3A, 115  $V_{AC}$  load. The output circuit contact must have 115  $V_{AC}$  present when the timer turns the circuit on.
- 995-12.2.5 Time Switch Housing: Time switches must be enclosed in durable sheet aluminum or approved alternate housing. A terminal strip or screws must be provided with the time switch for AC power and all output circuit contacts.
- 995-12.3 Model 210 Conflict Monitor with Absence of Red Monitoring: The conflict monitor must be a Model 210 "PLUS" conflict monitor capable of detecting fault sequencing of signals on a per channel basis (i.e., short or absence of yellow interval and/or simultaneous dual indications). All integrated circuits having 14 pins or more must be socket mounted.
- 995-12.3.1 Absence of Red Monitoring: The conflict monitor must be capable of monitoring for the absence of voltage on all of the inputs of a channel (defined here as red, yellow, and green). If an output is not present on at least one input of a channel at all times, the unit shall begin timing the duration of this condition. If this condition exists for less than 700 milliseconds, the unit shall not trigger. If this condition exists for more than 1000 milliseconds, the unit shall trigger as if a conflict had occurred, causing the intersection to transfer immediately into a flashing mode, and "stop-time" to be applied to the controller. A red signal shall require the presence of a minimum of 60 V<sub>AC</sub>, plus or minus 10 V<sub>AC</sub>, to satisfy the requirements of a red indication. The red input signals shall be brought into the conflict monitor through an auxiliary connector on the monitor's front panel. Provide a similar connector on the output file, with a removable harness connecting the two. Provide an indicator on the front panel of the monitor to identify the triggering of the monitor in response to the absence of red condition.