Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

April 15, 2025

SUBJECT: FAU 6727 (Detroit Road)
Section 20-00130-00-RS (Morton)
Tazewell County
Contract No. 89802
Item 198
April 25, 2025 Letting
Addendum (B)

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. **Revised Special Provision Index**
2. **Revised pages 25 & 26 of the Special Provisions**
3. **Added pages 25A, 26A, & 26B to the Special Provisions**

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

Jack A. Elston, P.E.
Bureau Chief, Design and Environment

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Method of Measurement: This work will be measured for payment as each per pedestrian push-button post.

Basis of Payment: This work will be paid for at the contract unit prices for PEDESTRIAN PUSH-BUTTON POST and will be payment in full for all labor, equipment, and materials required to provide and install the pedestrian push-button posts.

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ACCESSIBLE PEDESTRIAN SIGNAL

Description. This work shall consist of furnishing and installing accessible pedestrian signals (APS). Each APS shall consist of an interactive vibrotactile pedestrian pushbutton with speaker, an informational sign, a light emitting diode (LED) indicator light, a solid-state electronic control board, a power supply, wiring, and mounting hardware. The APS shall meet the requirements of the MUTCD and Sections 801 and 888 of the Standard Specifications, except as modified herein.

Accessible Pedestrian Signals shall conform to Public Right-of-Way Accessibility Guidelines (PROWAG.)

Add the following to Article 888.03 of the Standard Specifications:

The Contractor is not allowed to install a push-button assembly with the sign below the push-button to meet mounting requirements.

Add the following to Article 1074.02(e) of the Standard Specifications:

Stations shall be designed to be mounted to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e, 9" x 15" sign (Type ZZ Sheeting) with arrow(s) for a count-down pedestrian signal. Stations shall be powder coated black with a black pushbutton and stainless-steel arrow on pushbutton.

Electrical Requirements. The APS shall operate with systems providing 95 to 130 VAC, 60 Hz and throughout an ambient air temperature range of -29°F to +160°F (-34°C to +70°C).

The APS shall be designed for two wire operation to allow APS stations to operate using existing 2/C pushbutton wires. The 2/C pushbutton wires shall be used to provide power and communications (placing pedestrian phase calls) from the APS station to the central control unit in the traffic signal cabinet. Wireless communications between the APS station and the central control unit shall only be used for programming, firmware updates, and APS station management, not for placing pedestrian phase calls.

The APS stations shall be equipped with a shelf mounted central control unit that is located inside the traffic signal controller cabinet and connects to each APS pushbutton station. The central control unit shall be equipped with an Ethernet port that can be used for remote system

monitoring, configuration, and administration. A total of one central control unit shall be furnished for each traffic signal cabinet.

The AC power input for the system shall be disconnected in the event that the intersection goes into flash.

The APS shall contain a power protection circuit consisting of both fuse and transient protection.

Locator Tone and Traffic Control Signal in Flashing Mode. When the traffic control signal is operating in a flashing mode, pedestrian push button locator tones shall remain active, and the pedestrian push button shall activate a speech message that communicates the operating mode of the traffic control signal.

Audible Indications. A pushbutton locator tone shall sound at each pushbutton and shall be deactivated during the associated walk indication and when associated traffic signals are in flashing mode. Pushbutton locator tones shall have a duration of 0.15 seconds or less and shall repeat at 1-second intervals. Each actuation of the pushbutton shall be accompanied by the speech message "Wait". Locator tones shall be audible 6 to 12 ft. from pushbutton.

If two accessible pedestrian pushbuttons are placed less than 10 ft. (3 m) apart or placed on the same pole, the audible walk and don't walk indication shall be a speech message. This speech message shall sound throughout the WALK interval only. Common street name shall be used and not the route number of the street unless there is no common street name. The street name used in programming shall reflect the street name mast arm mounted sign panel. Locations without street name (ex. private benefit driveways, shopping plaza entrance, etc.) shall use a general term "Commercial Driveway" as a street name for that leg. The speech message shall be modeled after: "'Street Name.' Walk Sign is on to cross "Street Name'." For signalized intersections utilizing exclusive pedestrian phasing, the verbal message shall be "Walk sign is on for all crossings". In addition, a speech pushbutton information message shall be provided by actuating the APS pushbutton when the WALK interval is not timing. This verbal message shall be modeled after: "Wait. Wait to cross 'Street Name' at 'Street Name'".

Locations with Corner Islands or Center Medians. At locations with corner islands pushbuttons shall follow the requirement of the 10 ft. as specified herein regarding the percussive tone versus a speech message. When push buttons are closer than 10 ft. apart the speech message shall follow the format specified herein for the main street crossing. The speech message shall follow the below speech models for the unusual configurations.

Method of Measurement: This work will be measured for payment as each per accessible pedestrian signal.

Basis of Payment: This work will be paid for at the contract unit prices for ACCESSIBLE PEDESTRIAN SIGNAL and will be payment in full for all labor, equipment, and materials required to provide and install the pedestrian push-button posts.

ILLUMINATED SIGN

Description: This work shall be in acceptance with Section 891 of the Standard Specifications with no exception.

Method of Measurement: This work will be measured for payment as each per illuminated sign.

Basis of Payment: This work will be paid for at the contract unit prices for ILLUMINATED SIGN (SPECIAL) and will be payment in full for all labor, equipment, and materials required to provide and install the illuminated signs.

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CONTROLLER CABINET TYPE IV

This work shall be in accordance with Sections 857, 1073, and 1074 of the Standard Specifications except as modified herein.

The Contractor shall remove existing photocell relays, DIN rail mounted communications equipment, detection equipment, emergency vehicle preemption equipment, CCTV equipment, and fiber optic enclosures from existing traffic signal controller cabinets and install the equipment in the proposed controller cabinets at each location.

The Contractor shall relocate battery backup system cabinets, electric service installations, lighting controller cabinets, and components from the existing traffic signal controller cabinets to the proposed controller cabinets.

The Contractor shall remove the existing traffic signal cabinet and components and dispose of them off site. The contractor shall allow the Department to salvage any traffic signal components from the existing cabinets prior to disposal.

The existing Econolite Cobalt or ASC/3 controller will be used with the proposed cabinet.

The cabinet shall be compliant with NEMA TS-2 standards and NTCIP standards 1201 and 1202.

The traffic signal cabinet shall have a NEMA TS-2 back panel. All flashing yellow left turn overlaps shall be configured for Mode G.

The proposed traffic signal cabinet emergency vehicle preemption functionality (if any) shall be configured to match the channels currently in use (if any).

The cabinet shall include a malfunction management unit to allow enhanced fault monitoring capabilities. The malfunction management unit shall support flashing yellow arrow operation and be a Reno A&E model MMU2-1600G equipped with a graphical display and Ethernet port.

The malfunction management unit shall be equipped with the latest software and firmware revisions. The cabinet shall be equipped with a plexi-glass shield that covers the power panel

which houses the mercury bus relay, line filter, circuit breakers, and other electrical components.

The cabinet shall be equipped with a TS-2 detector rack (rack is required only for cabinets with inductive loop detectors), load switches, flash transfer relays, bus interface units, and all other components required for operation.

**********No fiber optic telemetry components are required.**********

The cabinet shall be equipped with a plexi-glass shield that covers the thermostat and a LED lighting assembly that turns on when the door is opened. The lighting assembly shall be mounted in a location that will not interfere with cabinet maintenance.

The traffic signal cabinet shall be equipped with a sixteen-load switch back panel to accommodate future expansion.

The cabinet shall be equipped with a cabinet riser that raises the cabinet approximately twelve inches above the concrete foundation. The riser shall bolt directly to the existing foundation anchor bolts and the riser shall be attached to the cabinet using galvanized steel hardware.

The riser shall be fabricated from 0.125-inch (3 mm) sheet aluminum with flanges on the top and bottom to provide rigidity. The riser shall be equipped with mounting flanges as required to connect with the controller cabinet and foundation anchor bolts. The outside surface of the riser shall have a smooth, uniform, natural finish.

The cabinet shall be furnished with a compact heater strip to be used for moisture reduction during cold weather. The heater shall be thermostatically controlled, operate at 120 volts, have a minimum wattage of 150 watts, a maximum wattage of 250 watts, have a shield to protect service personnel and equipment from damaging heat, be separately fused, and be mounted where it does not interfere with a person working in the cabinet.

The traffic signal cabinets shall be equipped with two non GFCI duplex NEMA 5-15R receptacles to be used to provide power to auxiliary equipment.

The cabinet shall be equipped with toggle switch guards for all switches located on the door to prevent accidental switching. The cabinet shall include a re-usable deluxe filter.

The cabinet shall be equipped with additional surge protection for the controller, malfunction management unit, and detector amplifiers, and/or video detection system. The surge protector shall be a Transtector model ACP100BWN3 and shall be included in addition to an EDCO SHA1250 IRS protector. The EDCO SHA-1250 IRS surge protector is to be provided in accordance with Section 1085.47 A(4a) and shall be wired to provide surge protection for the controller, malfunction management unit, and detector amplifiers. The Transtector surge suppressor may be wired to the equipment protected power terminals of the EDCO SHA-1250 IRS unit provided that the controller, MMU, and detection system are protected.

The cabinet shall be equipped with an aluminum slide-out drawer with document storage. The slide-out drawer shall be able to support 50 lbs. when fully extended.

The Contractor shall set up each cabinet in his or her shop for inspection by the Engineer. All phases that are utilized shall be hooked up to a light board to provide observation for each signal indication. The Engineer shall be notified when the setup is complete so that all pertinent timings may be entered into each traffic signal controller. The facility shall be subject to a seven-day burn-in period before installation will be allowed.

After installing the cabinet in the field, prior to resuming normal signal operation, the Contractor shall test the cabinet by connecting a jumper to the cabinet field terminals to ensure that all conflicting signals will place the cabinet into conflict flash and to verify that the cabinet, controller, and malfunction management unit are operating correctly. The Contractor shall make arrangements with the local police agency to provide traffic control during the conflict test.

Basis of Payment: This work will be paid for at the contract unit price Each for CONTROLLER CABINET TYPE IV and shall be payment in full for all labor, materials, and equipment required to remove the existing traffic signal cabinet and furnish, install, and test the traffic signal cabinet described above, complete.

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