

JOB SPECIAL PROVISION

A. REMOVE & RESET EXISTING OPERATION GREEN LIGHT EQUIPMENT

1.0 Description.

The work under this Contract consists of required removal, testing, installation, and/or reinstallation of all Intelligent Transportation System (ITS) equipment and materials necessary for the Mid-America Regional Council (MARC) Operation Green Light (OGL) system to maintain operation as long as possible during the proposed construction period and reestablish communications as quickly as possible after the proposed construction period. This work includes, but is not limited to, the removal, testing, installation, and/or reinstallation of wireless signal communication equipment, incident management cameras, and fiber communication equipment, where applicable.

Coordination of the inspection and testing throughout the construction period is to be completed by calling the Mid-America Region Council at (816) 701-8300 and requesting the Operation Green Light staff.

1.1 Standard Details.

The Contractor shall follow OGL standard details and the owning agency standard details and for equipment installation as applicable. Contact MARC [OGL Staff](#) and/or local municipality to obtain applicable standard details.

1.2 Scheduling of Work.

The Contractor shall submit a schedule to MARC OGL staff for approval at least thirty (30) days before commencing work on OGL equipment or any work which would impact communications to the signal network. Once removal and/or installation of this equipment commences, the Contractor shall complete this work following the approved schedule.

1.3 Pre-Qualifications.

The Contractor shall have experience with applicable wireless equipment, radio networks, and/or applicable fiber optic cable and networking equipment. All work to be performed on new and existing OGL equipment shall be completed by an OGL approved Contractor or submit paperwork to be reviewed and approved by MARC staff. A contractor shall be certified to work on Radwin or Ceragon or similar wireless radios are required when working with the associated wireless radios in the field. The Contractor must submit vendor certifications, an experience summary from similar projects completed, and all applicable references and trainings to MARC OGL Staff within 7 days from the notice to proceed. Additionally, the Contractor must provide a manufacturer certification for each manufacturer of wireless equipment included with this project. These submittals must be approved by MARC OGL staff prior to any work being performed.

2.0 Construction.

To assure full and complete utilization and compliance of all equipment, the Contractor shall provide support services and materials at various points in the construction, including:

- Testing as specified in **Section 3** of this Technical Special Provision.

Final acceptance of the Project will be made after satisfactory completion of the testing of applicable installed and/or reinstalled communications system equipment, camera system software and equipment, signal vehicle and pedestrian detection, and on the basis of a comprehensive final field inspection. The Contractor shall be fully responsible for safe return of all equipment removed to OGL Staff until the equipment is ready for reinstallation (if applicable). The Contractor shall coordinate with OGL Staff on proper location for storage of equipment removed.

The equipment and materials for installation shall conform to the Plans and this Technical Special Provision; relevant local agency specifications, latest edition; and the National Electric Code, latest edition. In case of a conflict the documents shall govern in the order established.

The Contractor shall be responsible for contacting MARC OGL staff and obtaining asset tags which are to be applied to each equipment item if necessary. The Contractor is responsible for contacting MARC OGL staff to obtain IP addresses and security key info for equipment if necessary.

The intent of this Job Special Provision is that the work to be completed under this Contract shall be neat, finished, full, and complete in every detail and ready for use and operation for the purpose for which it is intended. The Contractor shall furnish all labor, tools, materials, machinery, test equipment, and equipment necessary to complete the removal, testing, installation and/or reinstallation of the system. The cost of all incidentals, minor and miscellaneous items, work, and materials for which no payment is specifically provided, and any items, work, and materials not specified or shown which are necessary to complete and maintain the work shall be included in the price bid for other items in the Contract, and no other compensation will be allowed. The Contractor shall pay all shipping costs for the equipment furnished and installed under this Contract.

2.1 Removal (and Reinstallation) of Existing Equipment.

If wireless equipment is proposed to be removed with this project it shall be returned to MARC OGL staff unless it is to be reinstalled on the project. The Contractor shall remove the specified equipment at designated locations. Equipment removal shall be conducted in a manner in which to preserve the existing condition of the equipment. The Contractor shall plug any holes in mast arms or poles when wireless equipment is removed. When equipment has a corresponding cable the Contractor shall remove the cabling from the existing conduit and pull box system and disconnect any existing terminations in the cabinet for that device. Cable associated with existing wireless communications equipment should be completely removed from the signal system (conduit, pull boxes, and pole), coiled, and disposed of in an acceptable manner. All equipment, with the exception of cabling, is to be returned to MARC OGL staff.

The Contractor shall perform all cable and cable hardware removal in a manner that ensures that no damage is caused to any conduit, pole, or other facility. In case of damage to cables, equipment or property, the Contractor shall immediately notify the Engineer. The Contractor shall repair all damage caused by performing the required tasks at the Contractors sole expense and to the satisfaction of the Engineer.

If removed equipment is to be reinstalled at any point in the project, the Contractor shall schedule work with OGL Staff per **Section 1.2** and adhere to a strict schedule to minimize downtime of equipment.

(Modify the next paragraph as required)

Upon removal of existing equipment, the Contractor shall complete all work necessary to reinstalled removed equipment, or install new equipment, per plans to keep downtime to a maximum continuous 24-hour time window. Contractor shall install temporary communications or confirm project schedule if downtime is anticipated to be greater than a continuous 24-hours.

New cable shall be supplied and installed by the Contractor for reconnection to reinstalled equipment upon completion of construction. New cable to devices shall meet manufacturer specifications for said device and approved by OGL Staff during the equipment submittal process. All new equipment shall conform to OGL standards and specifications in addition or as a supplement to local or state jurisdictional requirements.

3.0 Acceptance and Testing Procedures.

The Contractor shall notify OGL Staff in advance of the times and places which the tests will take place to enable the Engineer and/or OGL Staff to witness them. The Contractor shall perform the tests and document the test results. The testing of equipment's functionality shall involve evaluating its capability to transmit and receive information reliably and efficiently. This encompasses assessing wireless performance, including transmit power and receive sensitivity, as well as verifying compliance with relevant communication protocols. Functional testing must encompass all intended features and functions. When the tests are completed, whether successful or not, electronic copies of the test results shall be furnished to OGL Staff for evaluation. The documented test results shall be self-explanatory, clearly stating how the results were obtained along with an explanation where the test results deviated from the expected results. OGL Staff will notify the Contractor whether the test was successfully completed.

3.1 Inspection.

All equipment and material furnished, and all work performed in connection with the project shall be subject to inspection by OGL Staff. OGL Staff, or their authorized representative, shall have free access during normal working hours to any local facility or area in which work associated with the project is occurring. The Contractor shall ensure that full and sufficient information concerning the character of materials and workmanship is made available to OGL Staff or the Engineer.

Inspection by OGL Staff or the Engineer shall not relieve the Contractor of his obligation to comply with the requirements of the Plans and this Technical Special Provision. Any equipment or labor, which is found by OGL Staff to be defective or unsuitable prior to Final Acceptance, shall be replaced or corrected at the Contractor's expense.

4.0 Traffic Control. (ADD/DELETE this section as needed)

The Contractor shall be responsible for traffic control for this project. Traffic control shall follow all Manual on Uniform Traffic Control Devices (MUTCD) requirements and local jurisdiction traffic control specifications. During construction the Contractor shall avoid disruption to public streets if at all possible, which includes lane closures. Lane closures

should be used only if absolutely needed and should occur only during non-peak or nighttime hours of traffic, as approved by the governing jurisdiction. In general peak periods where lane/road closures should not occur include weekdays from 7-9am and 4-6pm, refer to local agency requirements for additional restrictions. The contractor shall submit a traffic control plan for approval by MARC OGL Staff and the local jurisdiction. The Contractor shall be responsible for coordinating with the local jurisdiction about lane closures or work interrupting traffic flow a minimum of 24 hours prior to work beginning, refer to local agency requirements for additional notification requirements. The Contractor shall obtain traffic control permits as required by the local jurisdiction.

5.0 Basis of Payment.

The removal and resetting/reinstallation of existing OGL equipment will be paid for under the lump sum bid item for "Remove & Reset Existing OGL Equipment" for all devices installed or relocated on the project. No direct payment will be made for any incidental items necessary to complete the work unless specifically provided as a pay item in the contract. The Lump Sum bid item shall include all necessary equipment described in the plans and all incidental components, including mounting brackets, antennas, surge suppression and cabling.

<u>Item No.</u>	<u>Type</u>	<u>Item Description</u>
XXX	LS	Remove & Reset Existing OGL Equipment