

**TECHNICAL SPECIAL PROVISIONS
FOR MOVABLE BRIDGE OPERATION**

Financial Project ID(S): 439269-1-52-01

Bridge No. 790172

The official record of this Technical Special Provision is the electronic file, digitally signed and sealed under Rule 61G15-23.004, F.A.C.



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T465 – Movable Bridge Operation

T465-1 Description:

Execute movable bridge work in accordance with the details shown in the Contract Documents and in conformance with American Association of State Highway and Transportation Officials (AASHTO) LRFD Movable Highway Bridge Design Specifications, 2nd Edition with interims.

T465-2 Qualifications:

Supervisory personnel must meet the requirements of the FDOT Standard Specifications Section 105-8.7. Provide a qualified bridge operator for operation, testing, and adjusting of the bridge from the first chargeable workday through Final Acceptance. Provide a foreman, who is competent to operate the bridge, to supervise its operation, and to make any minor adjustments that may be required to the mechanical equipment.

T465-3 Bridge Operator, Preventative Maintenance and Routine Repair, and Equipment Failures

Assume responsibility for the operation and all maintenance on the movable bridge from the first chargeable workday through Final Acceptance. Responsibility of repair of equipment and a Response Plan must be coordinated with the Department and Asset Management contractor. The Response Plan must include method of rapid response to any electrical or mechanical failure. Meet with the Department and Asset Management contractor after award. This includes a field meeting with all parties to review and identify the condition of excluded equipment and allow the Asset Management contractor to provide up-to-date information on operational and maintenance issues. Submit the response plan to the Department no later than the Preconstruction Meeting for approval by the Department. For maintenance requirements refer to the Asset Management contractor's established maintenance procedures.

Document any failure by describing the event and logging a "Preliminary Cause of Failure Report." Submit this report to the Engineer within ten days of the event. If repair is not possible within a time acceptable to the Department, document temporary resolutions for review and approval by the Engineer.

T465-4 Coordination

Conduct meetings among subcontractors and others concerned with the Contract, to establish and maintain coordination and schedules, and to resolve coordination matters in dispute. Progress meetings shall contain a report on progress of the Contract to be adjusted under coordination requirements, and any required changes in schedules. Transmit minutes of meetings and reports to concerned parties. Meetings shall occur at a rate of once per month at a minimum or at an increased frequency if necessary.

T465-4.1 Coordination documents: Prepare a master schedule to identify responsibilities under each section of the Technical Special Provisions for activities that directly relate to this work. Maintain Record Documents for the duration of the Contract, recording changes due to site instructions, modifications, or adjustments.

T465-4.2 Coordination of substitutions and modifications: Review all proposals and requests from subcontractors and verify compliance with Contract Documents for compatibility

with Work of Contract Documents.

T465-5 Documentation of Tests

Observe and maintain a record of tests. For each test record:

1. Specification section number, product, and name of subcontractor.
2. Name of testing agency and name of inspector.
3. Date, time, and duration of test.
4. Type of test and results.
5. Any retesting required.

Assemble background documentation for dispute and claim settlement by the Engineer. Submit copies of all documentation to the Engineer upon request.

T465-6 Instruction and Testing Books

All required booklets shall be bound between rigid plastic binding covers. Utilize 9x12 inch books, of sufficient size to contain the drawings without excessive folding so that they may be easily opened. Neatly label the books with a descriptive title, including the name of the project, location, year of project, Owner, Contractor, and Engineer. Drawings should be in black ink on white background and easily legible. Four bound copies of all books shall be submitted to the Engineer for review.

T465-6.1 Maintenance Instruction Books: Integrate and assemble information required for maintenance into instruction books. The first maintenance instruction book shall contain:

1. Table of contents.
2. Operator's instructions, covering the full step-by-step sequence of operation of the equipment, noting all precautions required for correct operation. Include complete instructions for emergency operation of span locks by use of the emergency procedures. Include the method of transfer, the arrangement of machinery, the necessary controls, and a step-by-step sequence of operation.
3. Detailed maintenance instructions for adjusting, calibrating, and operating all electrical, hydraulic, and instrumentation equipment, including the Asset Management contractor's recommended preventative maintenance lubrication schedule.

The second maintenance instruction book shall contain:

1. The complete spare parts list.
2. The control panel layouts and wiring diagrams for all equipment.
3. The schedule of electrical and mechanical apparatus.
4. All piping layout diagrams.
5. Lubrication charts.

T465-6.2 Functional Acceptance Test Books: Functional Acceptance test (Functional Checkout) books shall contain full documentation of the test requirements.

T465-7 Bridge Operation handoff

Design a bridge handoff procedure in conjunction with the Engineer and Asset Management contractor. Document all readings of equipment as directed by the Asset Management contractor prior to bridge handoff. All bridge handoff values will be used to establish all equipment is in working order during final acceptance.

Include tests to verify all functions related to leaf operation, maintenance, and safety

whether specifically defined herein or required of the contract. At a minimum, bridge handoff and final acceptance will require a test to ensure the bridge is balanced.

T465-8 Final Acceptance

After all work has been completed, complete tests of the bridge to ensure all systems are in working order. Develop and submit a final acceptance procedure to be approved by the Engineer.

Final acceptance criteria must be presented in a manner that is concise and void of ambiguities. Include all normal and emergency operating conditions as defined in the Contract Documents and all maintenance modes of operation.

Provide adequate notice (10 working days minimum) prior to all tests so the Engineer and Asset Management contractor can witness and accept the method and result of each test.

Any equipment or system the Engineer or Asset Management contractor deem as not performing at the level it was before work started shall be repaired or replaced to the satisfaction of the Department.

T465-9 Measurement

The quantity to be paid for operating the bridge will be the lump sum quantity for bridge operation and maintenance for the duration of the project.

T465-10 Basis of Payment

Price and payment will be full compensation for all work specified in this Technical Special Provision. Payment will be made under:

Item No. 999-2 Lump Sum Contract, Alternative Bidding