

# **SUPPLEMENTAL SPECIFICATIONS**

(Date of Last Revision: 08/12/2025)

These Supplemental Specifications amend Division I and Division II of the FY 2025-26 edition of the Florida Department of Transportation *Standard Specifications for Road and Bridge Construction*. All provisions of the *Standard Specifications for Road and Bridge Construction* that are not amended or supplemented remain in full force and effect. The *Standard Specifications for Road and Bridge Construction* are available as an eBook from the Florida Department of Transportation website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm>.

**The City modifies Division I and Division II of the *Standard Specifications for Road and Bridge Construction* in the following manner:**

## **DIVISION I – GENERAL REQUIREMENTS AND COVENANTS**

### **SECTION 1 – DEFINITIONS AND TERMS**

Delete and substitute the following definitions in Article 1-3 Definitions:

#### **Contract Documents.**

The term “Contract Documents” includes: Notices/Instructions to Bidders, General Provisions, Special Provisions, Supplemental Specifications, Supplemental Information, Standard Specifications, Plans, Water and Sewer Specifications, Addenda or other information issued to prospective bidders prior to the receipt of bids, the Contractor’s Bid Proposal, MBE Utilization Summary, Bid Security Bond, Contract, Contract Bond, Contract Certification Form, Insurance Certifications, Field Orders, Construction Change Directives, and Change Orders, all of which are to be treated as one instrument whether or not set forth at length in the form of a contract.

#### **Contractor’s Engineer of Record.**

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or their subcontracted consultant, who undertakes the design and drawing of components of the permanent work as part of a redesign or Cost Savings Initiative Proposal, or for repair designs and details of the permanent work. The Contractor’s Engineer of Record may also serve as the Specialty Engineer.

Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

#### **Department.**

When this term is used it is synonymous with the City of Tallahassee, Florida.

#### **Engineer.**

The City Engineer of the City of Tallahassee, Florida, a City departmental engineer, or a City departmental project manager acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.

Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where “acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established, given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory,” it shall be understood as if the expression were followed by the words “by the Engineer,” “to the Engineer,” or “of the Engineer.”

#### **Holidays.**

Days designated as holidays include, but are not limited to, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

#### **Plans.**

The plans, including reproductions thereof, issued by the Department showing the location, character, dimensions, and details of the work.

**Proposal Form.**

The official form or bid item sheets on which the Department requires formal bids to be prepared and submitted for the work.

**Right-of-Way.**

The land the Department has title to or right of use.

**Special Event.**

Any event, including but not limited to, a home football game of Florida State University or Florida A&M University, a festival, fair, run or race, motorcade, parade, civic activity, cultural activity, charity or fund drive, sporting event, or similar activity designated in the Contract Documents.

**Specialty Engineer.**

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or their subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the plans and required to be furnished by the Contractor. The Specialty Engineer may be an employee or officer of the Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator, or an independent consultant.

A Specialty Engineer is qualified if they have the following qualifications:

- (1) Registration as a Professional Engineer in the State of Florida.
- (2) The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

**Specifications.**

The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

A. Standard Specifications: the Florida Department of Transportation *Standard Specifications for Road and Bridge Construction*; an electronic book, containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.

B. Supplemental Specifications: Approved additions and revisions to the Standard Specifications.

C. Special Provisions: Specific clauses that add to or revise the Standard Specifications or Supplemental Specifications, setting forth conditions varying from or additional to the Standard Specifications or Supplemental Specifications applicable to a specific project.

**Work Order.**

A written agreement between the Contractor and the Department modifying the Contract within the limitations set forth in these Specifications.

Add the following definitions in Article 1-3 Definitions:

**Approved Products List (Department's Approved Products List, Department's APL).**

A list of products that have been approved by the Florida Department of Transportation for use on State and Federal Highways.

**Bid Security.**

The security furnished by the bidder as guaranty that the bidder will enter into the Contract for the work if the Department accepts the proposal.

**Construction Training Qualification Program (CTQP).**

A Florida Department of Transportation program through which Construction technicians and contractors can receive training and become qualified to test materials to improve the quality of Florida's roads.

**Department's List of Producers with Accepted Quality Control Programs (Producers with Accepted Quality Control Programs).**

A listing of participating material producers with Quality Control (QC) Programs that have been reviewed and approved by the State Materials Office of the Florida Department of Transportation.

**Department's Materials Manual**

A publication of the Florida Department of Transportation's State Materials Office that contains the instructions needed to complete Quality Assurance and Materials Acceptance for Florida Department of Transportation contracts.

**Department's Nonstructural Concrete Production Facility Listing**

A listing by the Florida Department of Transportation of production facilities with Quality Control (QC) Programs that have been reviewed and approved by the State Materials Office of the Florida Department of Transportation.

**Department's Production Facility Listing**

A listing by the Florida Department of Transportation of production facilities with Quality Control (QC) Programs that have been reviewed and approved by the State Materials Office of the Florida Department of Transportation.

**Department's Website**

The Florida Department of Transportation's website.

**Design Standards (Department Design Standards).**

The Florida Department of Transportation's "Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System".

**District Materials Office.**

One of the six district offices of the Florida Department of Transportation's State Materials Office.

**Materials Manual (Department's Materials Manual).**

A publication of the State Materials Office of the Florida Department of Transportation standardizing the use and acceptance of materials and sampling and testing procedures.

**Materials Office (State Materials Office).**

The Florida Department of Transportation State Materials Office (SMO), located in Gainesville, Florida, which sets the policies and procedures for the materials program that are carried out at the district level by six district materials offices that are located throughout the state.

**Notices/Instructions to Bidders.**

A document provided to prospective bidders that sets forth the requirements and procedures to be followed for the preparation and submittal of proposals for a competitive bid.

**Structures Design Bulletins.**

Publications by the Structures Design Office that provide information on changes in design policies or procedures.

**Structures Design Guidelines (Department's Structures Design Guidelines).**

A publication by the Structures Design Office that sets forth the basic Florida Department of Transportation design criteria that are exceptions to those included in the AASHTO/LRFD Bridge Design Specifications published by AASHTO for Load and Resistance Factor Design

**Structures Design Office (SDO).**

The Florida Department of Transportation Structures Design Office, located in Tallahassee, Florida, which provides design guidance and technical assistance for structural, geotechnical, mechanical and electrical issues related to structural design and construction

**Qualified Products List (Department's Qualified Products List, Departments QPL).**

A list published and maintained by the State Specifications Office of the Florida Department of Transportation of specific products and materials approved for use on Florida Department of Transportation facilities.

Delete the following definitions in Article 1-3 Definitions:

Contract Claim.

Contract Letting.

Developmental Specification.

Proposal Guaranty.

Secretary.

Supplemental Agreement.

Technical Special Provisions.

Unilateral Payment.

## **SECTION 2 – PROPOSAL REQUIREMENTS AND CONDITIONS**

Delete Article 2-1 Prequalification of Bidders and substitute the following:

Bidders must be prequalified in accordance with established policies and procedures of the City of Tallahassee. Requirements and instructions for pre-qualification may vary from project to project. Bidders will be advised of specific prequalification requirements in the Advertisement for each project.

Delete Article 2-2 Proposals.

Delete Article 2-4 Examination of Plans, Specifications, Special Provisions and Site of Work.

Delete Article 2-5 Preparation of Proposals.

Delete Article 2-6 Rejection of Irregular Proposals.

Delete Article 2-7 Guaranty to Accompany Proposals.

Delete Article 2-8 Delivery of Proposals.

Delete Article 2-9 Withdrawal or Revision of Proposals.

Delete Article 2-10 Opening of Proposals.

Delete Article 2-11 Disqualification of Bidders.

## **SECTION 3 – AWARD AND EXECUTION OF CONTRACT**

Delete Section 3 in its entirety.

## **SECTION 4 – SCOPE OF THE WORK**

Delete the second and third paragraphs of Article 4-1 Intent of Contract.

Delete the text of Article 4-2 Work not covered by Standard Specifications and substitute the following:

Construction of the work described in the Contract and any contractual requirements not covered by the Standard Specifications may be covered by Plan notes or by the Notices/Instructions to Bidders,

General Provisions, Supplemental Specifications, or Special Provisions for the Contract, and all requirements of such Plan notes, Notices/Instructions to Bidders, General Provisions, Supplemental Specifications, and Special Provisions shall be considered as a part of these Specifications.

Delete Subarticle 4-3.1 General.

Delete Subarticle 4-3.2 Increase, Decrease or Alteration in the Work.

Delete Subarticle 4-3.4 Conditions Requiring a Supplemental Agreement or Unilateral Payment.

Delete Subarticle 4-3.5 Extra Work.

Delete Subarticle 4-3.9 Cost Savings Initiative Proposal and substitute the following:

**4-3.9 Cost Savings Initiative Proposal:**

**4-3.9.1 Intent and Objective:**

(1) This Subarticle applies to any cost reduction proposal (hereinafter referred to as a Proposal) that the Contractor initiates and develops for the purpose of refining the Contract to increase cost effectiveness or significantly improve the quality of the end result. This Subarticle does not, however, apply to any such Proposal unless the Contractor identifies it at the time of its submission to the Department as a Proposal submitted pursuant to this Subarticle.

(2) The Department will consider Proposals that would result in net savings to the Department by providing a decrease in the cost of the Contract. Proposals must result in savings without impairing essential functions and characteristics such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features. The Department will not recognize the Contractor's correction of plan errors that result in a cost reduction, as a Proposal. Deletions of work, approved by the Engineer, that are the sole objective of the Proposal will include a cost sharing percentage with the Contractor as defined in Subarticle 4-3.9.7.

(3) The Department shall have the right to reject, at its discretion, and for any reason any Proposal submitted. The Department will not allow the substitution of another design alternate that is detailed in the plans, on which the Contractor could have bid, for the one on which the Contractor has bid, as a Proposal under this Subarticle. Pending the Department's execution of a formal change order implementing an approved Proposal, the Contractor shall remain obligated to perform the work in accordance with the terms of the existing Contract. The Department may grant time extensions to allow for the time required to develop and review a Proposal.

**4-3.9.2 Subcontractors:** The Department encourages the Contractor to include the provisions of this Subarticle in Contracts with subcontractors and to encourage submission of Proposals from subcontractors. However, it is not mandatory to submit Proposals to the Department or to accept or transmit subcontractor proposed Proposals to the Department.

**4-3.9.3 Data Requirements:** As a minimum, submit the following information with each Proposal:

(1) a description of the difference between the existing Contract requirement, including any time extension request, and the proposed change, and the comparative advantages and disadvantages.

(2) separate detailed cost estimates for both the existing Contract requirement and the proposed change. Break down the cost estimates by pay item numbers indicating quantity increases or decreases and deleted pay items. Identify additional proposed work not covered by pay items within the Contract by using new pay item numbers. In preparing the estimates, include overhead, profit, and bond within pay items in the Contract. Separate pay item(s) for the cost of overhead, profit, and bond will not be allowed.

(3) an itemization of the changes, deletions or additions to plan details, plan sheets, design standards and specifications that are required to implement the Proposal if the Department adopts it. Provide preliminary plan drawings sufficient to describe the proposed changes.

(4) engineering or other analysis in sufficient detail to identify and describe specific features of the Contract that must be changed if the Department accepts the Proposal with a proposal as to how these changes can be accomplished and an assessment of their effect on other project elements. The Department may require that engineering analyses be performed by a qualified consultant in the

applicable class of work. Support all design changes that result from the Proposal with prints of drawings and computations signed and sealed by the Contractor's Engineer of Record. Written documentation or drawings will be provided clearly delineating the responsibility of the Contractor's Engineer of Record.

(5) the date by which the Department must approve the Proposal to obtain the total estimated cost reduction during the remainder of the Contract, noting any effect on the Contract completion time or delivery schedule.

(6) a revised project schedule that would be followed upon approval of the Proposal. This schedule would include submittal dates and time for Department reviews.

**4-3.9.4 Processing Procedures:** Submit two copies of each Proposal to the Engineer or their duly authorized representative. The Department will process Proposals expeditiously; however, the Department is not liable for any delay in acting upon a Proposal submitted pursuant to this Subarticle. The Contractor may withdraw, in whole or in part, a Proposal not accepted by the Department within the period specified in the Proposal. The Department is not liable for any Proposal development cost in the case where the Department rejects, or the Contractor withdraws a Proposal.

The Engineer is the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the Department reserves the right to disregard the Contract bid prices if, in the judgment of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

Prior to approval, the Engineer may modify a Proposal, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the Proposal, the Department will determine the Contractor's fair share upon the basis of the Proposal as modified and upon the final quantities. The Department will compute the net savings by subtracting the revised total cost of all bid items affected by the Proposal from the total cost of the same bid items as represented in the original Contract.

Prior to approval of the Proposal that initiates the change order, provide acceptable Contract-quality plan sheets revised to show all details consistent with the Proposal design.

**4-3.9.5 Computations for Change in Contract Cost of Performance:** If the Proposal is adopted, the Contractor's share of the net savings as defined hereinafter represents full compensation to the Contractor for the Proposal.

The Department will not include its costs to process and implement a Proposal in the estimate. However, the Department reserves the right; where it deems such action appropriate, to require the Contractor to pay the Department's cost of investigating and implementing a Proposal as a condition of considering such proposal. When the Department imposes such a condition, the Contractor shall accept this condition in writing, authorizing the Department to deduct amounts payable to the Department from any monies due or that may become due to the Contractor under the Contract.

**4-3.9.6 Conditions of Acceptance for Major Design Modifications of Category 2 Bridges:** A Proposal that proposes major design modifications of a category 2 bridge, as determined by the Engineer, shall have the following conditions of acceptance:

All bridge plans relating to the Proposal shall undergo an independent peer review conducted by a single independent engineering firm referred to for the purposes of this article as the Independent Review Engineer who is not the originator of the Proposal design. The independent peer review is intended to be a comprehensive, thorough verification of the original work, giving assurance that the design is in compliance with all Department requirements. The Independent Review Engineer's comments, along with the resolution of each comment, shall be submitted to the Department. The Independent Review Engineer shall sign and seal the submittal cover letter stating that all comments have been adequately addressed and the design is in compliance with the Department requirements. If there are any unresolved comments the Independent Review Engineer shall specifically list all unresolved issues in the signed and sealed cover letter.

The Contractor shall designate a primary engineer responsible for the Proposal design and as such will be designated as the Contractors Engineer of Record for the Proposal design. The Department

reserves the right to require the Contractor's Engineer of Record to assume responsibility for design of the entire structure.

New designs and independent peer reviews shall be in compliance with all applicable Department, FHWA and AASHTO criteria requirements including bridge load ratings.

**4-3.9.7 Sharing Arrangements:** If the Department approves a Proposal, the Contractor shall receive up to 50% of the net reduction in the cost of the performance of the Contract. The net reduction in the cost of the performance of the Contract will be determined by subtracting the reasonable documented engineering costs, incurred by the Contractor to design and develop a Proposal, from the gross reduction in the cost of the performance of the Contract, based on a certified invoice from the Contractor's Engineer of Record. The total engineering costs will be limited to 25% of the gross reduction in the cost of the performance of the Contract and shall not include any markup by the Contractor or any costs for engineering services performed by the Contractor.

If the Department determines that the parties identified in 337.11(17) Florida Statutes have contributed to the reduction in the cost of the performance of the Contract, the Contractor's share may be 45% of the net reduction.

If the Department approves a Proposal where deletions of work are the sole objective of the Proposal, the Contractor shall receive 14.5% of the net reduction in the cost of the performance of the Contract.

**4-3.9.8 Notice of Intellectual Property Interests and Department's Future Rights to a Proposal:**

**4-3.9.8.1 Notice of Intellectual Property Interests:** The Contractor's Proposal submittal shall identify with specificity any and all forms of intellectual property rights that either the Contractor or any officer, shareholder, employee, consultant, or affiliate, of the Contractor, or any other entity who contributed in any measure to the substance of the Contractor's Proposal development, have or may have that are in whole or in part implicated in the Proposal. Such required intellectual property rights notice includes, but is not limited to, disclosure of any: issued patents, copyrights, or licenses; pending patent, copyright or license applications; and any intellectual property rights that though not yet issued, applied for or intended to be pursued, could nevertheless otherwise be subsequently the subject of patent, copyright or license protection by the Contractor or others in the future. This notice requirement does not extend to intellectual property rights as to stand-alone or integral components of the Proposal that are already on the Florida Department of Transportation's Approved Products List or Standard Plans, or are otherwise generally known in the industry as being subject to patent or copyright protection.

**4-3.9.8.2 Department's Future Rights to a Proposal:** Notwithstanding 7-3 nor any other provision of the Standard Specifications, upon acceptance of a Proposal, the Contractor hereby grants to the Department and its contractors (such grant being expressly limited solely to any and all existing or future Department construction projects and any other Department projects that are partially or wholly funded by or for the Department) a royalty-free and perpetual license under all forms of intellectual property rights to manufacture, to use, to design, to construct, to disclose, to reproduce, to prepare and fully utilize derivative works, to distribute, display and publish, in whole or in part, and to permit others to do any of the above, and to otherwise in any manner and for any purpose whatsoever do anything reasonably necessary to fully utilize any and all aspects of such Proposal on any and all existing and future construction projects and any other Department projects.

The Contractor shall hold harmless, indemnify and defend the Department and its contractors and others in privity therewith from and against any and all claims, liabilities, other obligations or losses, and reasonable expenses related thereto (including reasonable attorneys' fees), which are incurred or are suffered by any breach of the foregoing grants, and regardless of whether such intellectual property rights were or were not disclosed by the Contractor pursuant to 4-3.9.8.1, unless the Department has by express written exception in the Proposal acceptance process specifically released the Contractor from such obligation to hold harmless, indemnify and defend as to one or more disclosed intellectual property rights.

Delete Article 4-4 Unforeseeable Work.

Expand Article 4-6 Final Cleaning Up of Right-of-Way by the following:

Depositing rubbish, construction debris, or spoils onto public or private property without the written approval of the Engineer is prohibited. For each occurrence the cost of clean up by City personnel and equipment will be deducted from the Contract Price. Materials not being used for current work tasks shall be stored or stockpiled in approved areas.

## **SECTION 5 – CONTROL OF THE WORK**

Delete Subarticle 5-1.1 Contract Documents

Delete Definition 5-1.4.1.9 QA/QC Shop Drawing Check Prints

Delete Subarticle 5-1.4.2 Shop Drawing Submittal and Review Requirements and replace with the following:

5-1.4.2 Shop Drawing Submittal and Review Requirements: The Engineer will determine the appropriate level of review of each submittal and coordinate as needed.

Delete Subarticle 5-1.4.4 Style, Numbering, and Material of Submittals and replace with the following:

5-1.4.4 Style, Numbering, and Material of Submittals:

5-1.4.4.1 Drawings: Submit all shop drawings that are necessary to complete the structure in compliance with the design shown in the Plans. Prepare all shop drawings using the same units of measure as those used in the Plans. Consecutively number each sheet in the submittal series and indicate the total number in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12). Include on a cover sheet the following items as a minimum requirement:

1. Contractor's approval stamp with date and initials, and,
2. When applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record.

A re-submittal will be requested when any of the required information is not included. Shop drawings shall be submitted in Portable Document Format (PDF) files.

5-1.4.4.2 Other Documents: Submit PDF files of other documents such as trade literature, catalogue information, calculations, and manuals formatted on sheets no larger than 11 by 17 inches. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12). Prepare all documents using the same units of measure as the Plans and include a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record.

Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the initials of the person(s) responsible for preparing and checking the document.

Clearly label trade literature and catalogue information on the front cover with the title, date, and name of the firm and person(s) responsible for that document.

Delete Subarticle 5-1.4.5 Submittal Paths and replace with the following:

5-1.4.5 Submittal Paths: All construction shop drawings and other documents described in this section are to be submitted to the City Inspector.

Delete Article 5-2 Coordination of Contract Documents.

Delete the first paragraph of Article 5-3 Conformity of Work with Contract Documents and substitute the following:

Perform all work and furnish all materials in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, as specified in the contract documents.

Delete Article 5-5 Authority of the Engineer.

Delete Article 5-6 Authority and Duties of Engineer's Assistants.

Delete Subarticle 5-7.1 Control Points Furnished by the Department and substitute the following:

**5-7.1 Control Points Furnished by the Department:** The Engineer will provide control points (Begin Construction, End Construction, PIs, PTs, etc.) and benchmarks at appropriate intervals along the line of the project to facilitate the proper layout of the work. Preserve all reference points and bench marks that the Department furnishes.

At least three calendar days prior to the preconstruction conference, the Contractor will submit to the Engineer for approval a set of field notes signed and sealed by a Professional Surveyor and Mapper registered in the State of Florida verifying the control points and benchmarks provided by the Engineer and establishing the location, description and elevation of all additional reference points and bench marks to be used in constructing the project.

Should there be significant inconsistencies between the Contractor's field notes and the control points and benchmarks provided by the Engineer, no shop drawings will be approved and no construction will begin until the inconsistencies have been satisfactorily resolved.

Expand Subarticle 5-7.5 Personnel, Equipment, and Record Requirements by the following:

All layout work shall be performed under the direct supervision of a State of Florida registered Professional Surveyor and Mapper (PSM).

Delete Subarticle 5-8.3 Supervision for Emergencies and substitute the following:

**5-8.3 Supervision for Emergencies:** Provide a responsible person, who speaks and understands English, and who is available at or reasonably near the worksite on a 24-hour basis, seven days a week. Designate this person as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise. Submit to all local law enforcement agencies the names and phone numbers of all personnel designated to be contacted in cases of emergencies along with a description of the project and its location.

Delete the last sentence of Subarticle 5-9.1 Cooperation by Contractor and substitute the following:

However, if the Engineer determines that the work thus exposed or examined is acceptable, the Department will pay by Change Order for the uncovering or removing, and the replacing of the covering or making good of the parts removed.

Delete Article 5-10 Final Inspection and substitute the following:

**5-10 Final Inspection.**

**5-10.1 Maintenance until Acceptance:** Maintain all Work until the Engineer has given final acceptance in accordance with 5-11.

**5-10.2 Inspection for Acceptance:** Upon notification that all Contract Work has been completed, the Engineer will make an inspection for acceptance and will perform such tests as the Engineer may deem necessary of the Work. The inspection will be made within seven days of the notification. If the Engineer finds that all work has been satisfactorily completed, the Department will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, the Engineer will detail the remedial work required to achieve acceptance. Immediately perform such remedial work. Subsequent inspections and tests will be made on the remedial work until the Engineer accepts all Work.

Until final acceptance in accordance with 5-11, replace or repair any damage to the accepted Work. Payment of such work will be as provided in 7-14.

**5-10.3 Partial or Conditional Acceptance:** The Engineer will not make, or consider requests for partial or conditional acceptance of any portion of the Work.

Delete the text of Article 5-11 Final Acceptance and substitute the following:

When, upon completion of the final inspection of the entire project, the Engineer determines the Contractor has satisfactorily completed the Work, all required testing has been successfully passed, and the Contractor has submitted acceptable as-built record drawings and all other records as required by the Specifications, the Engineer will give the Contractor written notice of final acceptance.

Delete the third paragraph of Subarticle 5-12.2.2 Claims For Delay and substitute the following:

There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not to a controlling work item, and then as to any such delay to a controlling work item, entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 4-3 or 5-12, except that in the instance of delay to a non-controlling item of work the Contractor may be compensated for the direct costs of idle labor or equipment only, and then only to the extent the Contractor could not reasonably mitigate such idleness.

Delete Subarticle 5-12.6.1 Compensation for Extra Work and substitute the following:

**5-12.6.1 Compensation for Extra Work:** Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond the actual costs of direct labor and burden for personnel actually engaged in the work, materials and supplies accepted by the Engineer and incorporated into the work, the rental costs of machinery or special equipment (other than small tools), including fuel and lubricant, for the actual time the equipment is in operation on the work or is directed to standby on the project site, and a reasonable allowance for indirect costs, expenses, and profit.

Delete Subarticle 5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay and substitute the following:

**5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay:** For any delay claim, the Contractor shall only be entitled to monetary compensation for the actual idle labor (including supervisory personnel) and equipment, and indirect costs, expenses, and profit thereon, and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

## **SECTION 6 – CONTROL OF MATERIALS**

Delete the first sentence of Subarticle 6-1.2 Sampling and Testing and substitute the following:

Use a sample identification and tracking system to provide related information and attach such information to each sample.

Delete Subarticle 6-1.3.1 Manufacturer Material Certification and substitute the following:

**6-1.3.1 Manufacturer Material Certification:** Submit material certifications for all materials to the Engineer for approval when required by the Specifications. Materials will not be considered for payment when not accompanied by a material certification.

Delete the second, third, and fourth paragraphs of Subarticle 6-1.3.1.1 Approved Product List.

Delete Item 5 of Subarticle 6-4.1 Engineering Analysis and substitute the following:

5. Proposed qualified testing laboratories.

Delete Subarticle 6-5.1 Source of Supply–Convict Labor (Federal-Aid Contracts Only).

Delete Subarticle 6-5.2.1 Steel and Iron.

## **SECTION 7 – LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC**

Delete the last paragraph of Subarticle 7-1.1 General and substitute the following:

If the Department's website cannot be accessed, contact the Florida Department of Transportation's Specifications Office Web Coordinator at (850) 414-4101.

Delete the second paragraph of Subarticle 7-1.4 Compliance with Federal Endangered Species Act and other Wildlife Regulations and substitute the following:

In addition, in cases where certain protected, threatened or endangered species may unexpectedly be found or appear within close proximity to the project boundaries, the Florida Department of Transportation has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.

Delete Subarticle 7-1.9 Florida Minority Business Loan Mobilization Program.

Expand Subarticle 7-2.1 General by the following:

On projects where the approximate total area of land disturbance equals or exceeds one acre, the Contractor shall complete and file with the Florida Department of Environmental Protection a *Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities*, and shall pay the appropriate permit fee. The Contractor shall be responsible for meeting all regulatory requirements of the NPDES permit for the entire project. Information about Florida's NPDES program, Generic Permit, and forms may be obtained from the following FDEP website: <http://www.dep.state.fl.us/water/stormwater/npdes>.

Delete Subarticle 7-2.3 As-Built Drawings and Certified Surveys and substitute the following:

### **7-2.3 As-Built Record Drawings.**

**7-2.3.1 General:** Prior to final inspection, the Contractor shall submit to the Engineer complete as-built record drawings as specified herein.

**7-2.3.2 Depiction of Completed Work:** The Contractor shall employ a Florida licensed Professional Surveyor and Mapper (PSM) who shall obtain field measurements during and after construction of the actual locations, dimensions, and elevations of all constructed work; including those items of work that will become concealed or inaccessible. The survey shall be based on the horizontal control and vertical datum used to prepare the Plans, as verified by the preconstruction survey. The vertical datum and all benchmarks shall be shown on the as-built record drawings, including new benchmarks that were established for collecting as-built information.

The as-built record drawings shall be prepared by the PSM who obtained the field measurements, and shall meet the applicable minimum technical standards for a general survey per subsection 5J-17.051, F.A.C. The as-built record drawings must describe and show the locations, dimensions, and alignments of all constructed work located both inside and outside public rights-of-way, property boundaries, and easements. Water and sanitary sewer construction is not required to be shown when that work is depicted on separate as-built record drawings. The as-built record drawings shall be prepared for plotting on 22" x 34" sheets.

In addition to displaying the constructed work, the as-built record drawings shall show all rights-of-way, property boundaries, and easements; and all significant natural and manmade features within a minimum distance of 25 feet beyond the limits of the constructed work or beyond the rights-of-way, property boundaries, and easements, whichever is the most distant. The PSM may use the preconstruction survey drawing files that were used to produce the Plans to display such information, but all existing features within the limits of the constructed work that have been removed or altered by construction, including contour lines representing conditions that existed prior to construction, shall be deleted from the drawing files.

At a minimum, the information listed below must be included in the as-built record drawings. The Engineer may require additional information based on project specific conditions or other requirements of the Contract Documents.

**Stormwater:** All major components of stormwater systems shall be located and described. Each drainage structure shall be located and described in a table placed on the drawings in near proximity to the structure that includes type, size (including structure bottom), and elevations, including invert elevations of all connecting pipes and culverts. Pipes and culverts shall be located and identified by size, shape, material type, elevations, and lengths. Ditches shall be located and described by top and bottom widths and elevations, side slopes, and lengths. Cross sections and details may be required to properly depict the work. Ditch armoring shall be located and described by material type. The limits of the top and bottom of each stormwater pond shall be described by locations and elevations. Pond and site grading shall be depicted by contour lines. Cross sections may be required to define side slopes. Contours lines used to show site grading and grading of ditches and stormwater ponds shall be provided at the same vertical intervals as the Plans.

**Roadway:** Describe all constructed roadways, sidewalks, curb ramps, driveways, and other hardscape features by location, material, type, elevations, etc. Roadways shall be located by back of curb and/or edge of pavement, including medians and islands, at intervals required to describe horizontal geometry. The spacing of points must not exceed 25 feet. Elevations shall be shown along the centerlines, backs of curbs, and edges of pavement at intervals required to describe vertical geometry. Profiles, cross sections, and details may be included as required to properly depict the work. Identify by location, size, and type, all pavement markings and roadway signage. Describe by location, type, and length, all handrail, guardrail, fence, etc.

**Landscape / Irrigation / Lighting:** At a minimum, each installed tree shall be described by location, botanical name, common name, and caliper. All landscaped areas shall be located and described. The installed locations of irrigation systems must be shown. All automatic and manual valves, hose bibs or quick couplers, wire splices, and pressurized mainline locations shall be shown with actual field dimensions and referenced for easy location in the field. Installed locations of roadway lighting systems must be shown, including all street and trail light poles, street lighting conduit (including all sleeves under the roadway), pull or junction boxes, power distribution or load centers, and landscape lighting components. Information, at a minimum, must include the location, size, and type of appurtenance.

**7-2.3.3 Certification Requirements:** Each as-built record drawing shall display the survey date; the name, certificate of authorization number, street and mailing address, and phone number of the business entity; and the name and license number of the PSM. If the PSM is practicing independently, each as-built record drawing shall display the survey date, and the name, license number, street and mailing address, and phone number of the PSM. Each as-built record drawings shall be signed, dated, and sealed by the PSM in accordance with subsection 5J-17.062, F.A.C. The following certification shall appear on each sheet of the drawings:

*I hereby certify that the as-built survey shown hereon meets the Standards of Practice for Land Surveying in the State of Florida (F.A.C. 5J-17.051), pursuant to Section 472.027, F.S., and that all improvements shown hereon have been constructed at the horizontal and vertical locations shown. The undersigned surveyor has not been provided current title opinions or abstracts of matters affecting titles or boundaries of the properties shown hereon. It is possible there are deeds of record, unrecorded deeds, easements, or other instruments that could affect the boundaries. The mapped features of this survey may have been integrated with mapped features surveyed by others. The undersigned surveyor is responsible only for the mapped features of the constructed improvements.*

**7-2.3.4 Submittal Requirements:** The Contractor shall submit one electronic copy of the as-built record drawings certified by the PSM. The Contractor must also provide AutoCAD® drawings of all as-built information required herein, including the plot configuration and pen table files required to produce printed copies, and one copy of the as-built drawings in Adobe® Acrobat® PDF format. Drawings submitted for review purposes shall be in Adobe® Acrobat® PDF format.

**7-2.3.5 Basis of Payment:** When direct payment for work under this Section is not provided for in the proposal, all work specified in this Section shall be considered incidental to and included in the other items of the Contract. When direct payment for work under this Section is provided, the Contract price shall be full compensation for all work specified in this Section.

Partial payment will be allowed for field measurements obtained during construction prior to submittal of the as-built record drawings. The Contractor shall submit to the Engineer copies of invoices from the PSM to document the value of the work performed.

Payment for the work under this Section, when provided for directly, shall be made under:

Item No. 101-2- As-Built Record Drawings – lump sum

Delete the last sentence of Subarticle 7-5 Restoration of Surfaces Opened by Permit and substitute the following:

The Department will pay the Contractor for such work either under applicable Contract items or by Change Order when Contract items are not applicable.

Delete the first sentence of Subarticle 7-7.5 Contractor's Equipment on on Bridge Structures and substitute the following:

The Contractor's Engineer of Record shall analyze the effect of imposed loads on bridge structures, including Florida Department of Transportation owned temporary bridges, within the limits of the construction contract, resulting from the following operations:

Delete Section 4.b of Subarticle 7-7.5 Contractor's Equipment on on Bridge Structures and substitute the following:

Less than 90,000 lbs crossing bridge structures listed on the overweight routing map CRN-2 located on the Florida Department of Transportation Office of Maintenance Over-Weight Dimension Permits website at <https://www.fdot.gov/maintenance/owod-permit-documents#BlanketAttachments>.

Expand Subarticle 7-11.1 General by the following:

The Contractor will put forth every reasonable effort to minimize disruption and disturbance of adjacent properties. All trees, landscaping, etc., within permanent easements and temporary construction easements are to remain, unless noted otherwise on the drawings or by the Engineer, and are to be protected to the maximum extent practicable. The Contractor will be solely liable for damage within permanent easements and temporary construction easements and on properties adjacent to work zones.

The Contractor will exercise due care in the removal of existing fences to maintain security at the effected properties and to ensure the safety of pets, animals and children. If, in the opinion of the Engineer, removal of a fence will result in a reduction in security or safety, a temporary fence will be installed as directed by the Engineer prior to the removal. The temporary fence will remain in place until permanent fencing is installed.

Delete the last paragraph of Subarticle 7-11.1 General.

Delete Subarticle 7-11.3.2 On the State Highway System and substitute the following:

**7-11.3.2 On the State Highway System:** The Contractor is responsible for the repair of any damage that hauling materials to the site causes to roads outside the limits of the project, that are on the State highway system caused by the Contractor's failure to comply with 7-7.2.

Expand Subarticle 7-11.5.1 Arrangements for Protection or Adjustment by the following:

Utilities in the Tallahassee area have adopted the following uniform color code to indicate the locations and route of utility lines:

Color	Utility
Red	Electric Power Lines, Cables, Conduit and Lighting Cables
Yellow	Gas, Oil, Steam, Petroleum or Gaseous Materials
Orange	Communication, Alarm or Signal Lines, Cables or Conduits

Blue	Potable Water
Purple	Reclaimed Water, Irrigation and Slurry Lines
Green	Sanitary Sewer, Storm Sewer or Other Drain Lines

The Contractor shall verify location and status and coordinate with the applicable utility owner(s) before commencing work where construction operations are adjacent to utility facilities.

Add the following new Subarticle:

**7-11.5.5 Tree Removal or Trimming Near Power Lines:** Where trees overhang or are within ten feet of overhead power lines, exercise due care when pruning or removing limbs and trees so as to not damage any poles, wires, or other facilities. In the event of damage to the City's electric facilities during tree clearing operations, it shall be the responsibility of the Contractor to pay for the repair of any damage. Payment shall be made to the City Electric Department prior to disbursement of any subsequent payments to the Contractor.

Prior to beginning any work near energized overhead electric lines, notify the City Electric Utility Forester at (850) 891-5181 for approval of those persons that will be trimming, pruning, cutting, removing, or topping trees near City electric power lines.

Persons topping, pruning, trimming or cutting trees within ten feet of energized power lines must be "Line Clearance Tree Trimmers" certified in accordance with OSHA 29 CFR part 1910.269, as published in the following URL website:

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9868](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9868).

Delete Article 7-13 Insurance.

Delete the third and fourth paragraphs of Article 7-14 Contractor's Responsibility for Work.

Delete the fifth paragraph of Article 7-14 and substitute the following:

Theft and vandalism are considered damage caused by an unknown third party.

Delete Article 7-16 Wage Rates for Federal-Aid Projects.

Delete Article 7-17 Supplemental Agreements.

Delete Article 7-22 Available Funds.

Delete Article 7-23 Contractor's Motor Vehicle Registration.

Delete Article 7-24 Disadvantaged Business Enterprise Program.

Delete Article 7-25 On-The-Job Training Requirements.

## **SECTION 8 – PROSECUTION AND PROGRESS**

Delete Article 8-2 Work Performed by Equipment-Rental Agreement.

Delete the first paragraph of Subarticle 8-3.2 Submission of Contract Schedule and substitute the following:

No later than three calendar days prior to the preconstruction conference, submit to the Engineer a Contract Schedule for the project. The Engineer will provide comments to the Contractor within seven calendar days following the preconstruction conference.

Expand Subarticle 8-3.2 Submission of Contract Schedule by the following:

The schedule will be updated on a monthly basis and submitted to the Engineer a minimum of three calendar days prior to each scheduled monthly progress meeting.

Delete the last sentence of Subarticle 8-3.3 Beginning Work.

Expand Subarticle 8-3.4 Provisions for Convenience of Public by the following.

Unless otherwise stated in the contract documents, all construction operations shall be scheduled to begin no earlier than sunrise and to end no later than sunset. No construction operations shall be scheduled on Saturdays or Sundays if construction would cause a disturbance to water, sewer, gas, or electric services.

The City reserves the right to limit the Contractor's work and/or lane closure hours at any time during the project duration from those hours identified within the contract documents. The Contractor agrees to make no claim for additional compensation as a result of such acts by the City. However, the Contractor may be entitled to an extension of contract time, but only for the number of days which the City determines to be due to such acts.

Delete the third paragraph of Subarticle 8-4.1 Night Work and substitute the following:

Submit a lighting plan at the Preconstruction conference for review and acceptance by the Engineer. Submit the plan as a PDF file or on plan sheets at the same scale and sheet size as the Contract Plans. Do not start night work prior to the Engineer's acceptance of the lighting plan.

Delete the fourth paragraph of Subarticle 8-4.9 Contaminated Materials and substitute the following:

Dispose of the contaminated material in accordance with the requirements and regulations of any Local, State, or Federal agency having jurisdiction. Where the Contractor performs work necessary to dispose of contaminated material, and the Contract does not include pay items for disposal, the Department will pay for this work by Change Order.

Delete the first paragraph of Subarticle 8-6.4 Suspension of Contractor's Operations - Holidays and Special Events and substitute the following:

The Contractor shall not work on Holidays or Special Events unless the Contractor submits a written request to work during a Holiday or Special Event at least ten calendar days in advance of the beginning date of the Holiday or Special Event and receives written approval from the Engineer. Contract Time will be charged during Holiday and Special Event periods. No adjustment to Contract Time will be made unless in the Engineer's sole judgement a Holiday or Special Event could not have been reasonably anticipated or foreseeable at the time of bid. The Contractor is not entitled to any additional compensation for suspension of operations during such Holiday and Special Event periods.

Delete Subarticle 8-7.2 Date of Beginning of Contract Time and substitute the following:

**8-7.2 Date of Beginning of Contract Time:** The date on which Contract Time begins is the date stated in the Notice to Proceed Letter.

Delete Article 8-8 Failure of Contractor to Maintain Satisfactory Progress.

Delete Subarticle 8-9.1 Determination of Default.

Delete Subarticle 8-9.2 Termination of Contract for Convenience.

Delete Article 8-10 Liquidated Damages for Failure to Complete the Work.

Delete the text of Article 8-12 Recovery of Damages Suffered by Third Parties and substitute the following:

In addition to liquidated damages, when the Contractor fails to complete the work within the Contract Time or within such additional time that the Department may grant, the Department may recover from the Contractor amounts that the Department pays for damages suffered by third parties unless the failure to timely complete the work was caused by the Department's act or omission.

## **SECTION 9 – MEASUREMENT AND PAYMENT**

Delete Subarticle 9-2.1.1 Fuels.

Delete Subarticle 9-2.1.2 Bituminous Material.

Delete the last paragraph of Subarticle 9-3.1 General and substitute the following:

Compensation for alterations in plans or quantities of work requiring supplemental agreements shall be stipulated in such agreement, except when the Contractor proceeds with the work without change of price being agreed upon, the Contractor shall be paid for such increased or decreased quantities at the Contract unit prices bid in the Proposal for the items of work. If no Contract unit price is provided in the Contract, and the parties cannot agree as to a price for the work, the Contractor agrees to do the work for the actual costs of direct labor and burden for personnel actually engaged in the work, materials and supplies accepted by the Engineer and incorporated into the work, the rental costs of machinery or special equipment (other than small tools), including fuel and lubricant, for the actual time the equipment is in operation on the work, and a reasonable allowance for indirect costs, expenses, and profit.

Delete Subarticle 9-3.3.2 Authorized Changes in Work and substitute the following:

**9-3.3.2 Authorized Changes in Work:** Where the Department designates the pay quantity for an item to be a lump sum and the plans show an estimated quantity, the Department will adjust compensation for that item proportionately when an authorized plan change is made which results in an increase or decrease in the quantity of that item. When the plans do not show an estimated plan quantity or the applicable specifications do not provide adjustments for contingencies, the Department will compensate for any authorized plan change resulting in an increase or decrease in the cost of acceptably completing the item by establishing a new unit price through a Change Order.

Delete Article 9-5 Partial Payments.

Delete the last sentence of Article 9-7 Disputed Amounts Due the Contractor.

Delete Article 9-8 Acceptance and Final Payment.

Delete Article 9-9 Interest Due on Delayed Payments.

Delete Article 9-10 Offsetting Payments.

## **DIVISION II – CONSTRUCTION DETAILS**

### **SECTION 101 – MOBILIZATION**

Add the following new Subarticle:

**101-1.1 Project Signs:** Furnish and install project signs as shown on the plans or at locations to be determined by the Engineer. Two signs are to be furnished unless otherwise shown on the construction plans or stated in the contract documents. Each sign will be a double column ground sign of durable material approximately 48 by 54 inches in size, and will contain the project name, construction cost, and the name and telephone numbers of the Owner. The Engineer will approve the contents of the signs prior to placement. Remove the signs upon completion of the work. All costs for furnishing, placing, maintaining, and removing the signs will be included in the costs for mobilization. Except as otherwise specifically approved by the Engineer, advertising or other signs are not permitted on the job.

Expand Subarticle 101-2.1 When a Separate Item is Included in the Proposal by the following:

Partial payment of the lump sum bid price for Mobilization in the Proposal shall be limited to a maximum of 6% of the total Contract Price. Mobilization costs that are estimated by the Contractor to exceed 6% may be proportioned among and included within other pay item unit prices of the Contract. If the Contractor's lump sum bid price for Mobilization exceeds the 6% limit, the amount exceeding this limit will be paid in accordance with 101-2.2.

Delete Subarticle 101-2.2 Partial Payments and substitute the following:

**101-2.2 Partial Payments:** When the proposal includes a separate pay item for Mobilization and work has commenced and satisfactory progress is maintained pursuant to the accepted project schedule, partial payments will be made therefore in accordance with the following:

For contracts of 120 contract days duration or less, partial payment will be made at 50% of the bid price per month for the first two months. For contracts in excess of 120 contract days duration, partial payment will be made at 25% of the bid price per month for the first four months.

Total partial payment for Mobilization is limited to a maximum of 6% of the total Contract Price. The amount of the bid price for Mobilization exceeding this limit will be included in the Contractor's final request for payment.

Retainage will be applied to all partial payments. As an exception to partial payments, the Department will pay the Contractor the invoice price of the Contract Bond when the Engineer has been furnished a certified copy of the invoice from the Bonding Company. No other work will be required to receive payment for the Contract Bond included in the bid price for Mobilization.

Partial payments made on this item will in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

## **SECTION 102 – MAINTENANCE OF TRAFFIC**

Delete the third sentence of the first paragraph of Subarticle 102-3.2 Worksite Traffic Supervisor (WTS).

Delete the second paragraph of Subarticle 102-3.2 Worksite Traffic Supervisor (WTS) and substitute the following:

The WTS must obtain training and certification in accordance with the Florida Department of Transportation's Temporary Traffic Control (Maintenance of Traffic) Training Handbook located at the following URL address: <https://www.fdot.gov/roadway/ttc/default.shtm>.

Delete the second sentence of Item 2 of the third paragraph of Subarticle 102-3.2 Worksite Traffic Supervisor (WTS).

Delete the second sentence of the first paragraph of Subarticle 102-3.3 Lane Closures.

Delete the second, third, and fourth paragraphs of Subarticle 102-3.3 Lane Closures.

Delete the text of Article 102-4 Alternative Temporary Traffic Control Plan and substitute the following:

At least three days prior to the Preconstruction Conference, the Contractor will deliver a Temporary Traffic Control Plan (TTCP) to the Engineer for approval. The TTCP will describe how traffic is to be controlled during each construction phase as determined by the accepted project schedule. Details will be provided for access to the work zones by construction vehicles and personnel and for routing trucks during earthwork operations.

In no case will the Contractor begin work using the TTCP until the Engineer has approved such plan in writing.

Modifications to the TTCP that become necessary must also be approved in writing. Except in an emergency, no changes to the approved TTCP will be allowed until approval to change the plan has been received.

Expand Subarticle 102-5.3 Maintenance of Roadway Surfaces by the following:

Pavement cuts that are made in work zones where maintenance of traffic is required shall be paved with a minimum of 1.50 inch of fine Type SP Asphaltic Concrete for use as temporary pavement. The asphaltic concrete shall be placed immediately upon achieving all required soil densities or upon placement of temporary fill or base material. The asphaltic concrete shall be placed in such a manner that it will not distort, compress, or sink, creating a hazard to the motoring public. All costs are to be included in Maintenance of Traffic, Lump Sum.

Expand Subarticle 102-5.8 Flagger by the following:

All flaggers must obtain training in accordance with the Florida Department of Transportation's Temporary Traffic Control (Maintenance of Traffic) Training Handbook located at the following URL address: <https://www.fdot.gov/roadway/ttc/default.shtm>.

Delete Subarticle 102-6.2 Construction and substitute the following:

**102-6.2 Construction:** Plan, construct, and maintain detours for the safe passage of traffic in all conditions of weather. Provide the detour with all facilities necessary to meet this requirement. Where pedestrian facilities are detoured, blocked or closed during the work, provide safe alternate accessible routes through or around the work zone meeting the requirements of the ADA Standards for Transportation Facilities.

Delete Subarticle 102-6.4 Removal of Detours and substitute the following:

**102-6.4 Removal of Detours:** Remove detours when they are no longer needed and before the Contract is completed. Take ownership of all materials from the detour and dispose of them.

Delete Subarticle 102-6.5 Detours Over Existing Roads and Streets.

Delete Subarticle 102-6.6 Operation of Existing Movable Bridges.

Delete the third sentence of the sixth paragraph of Subarticle 102-9.1 General and substitute the following:

Temporary concrete barriers must meet the classification category of Acceptable defined in the Florida Department of Transportation's Temporary Concrete Barrier Evaluation Guide, which may be viewed at the following URL:

[https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/docs/default-source/content-docs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97\\_10](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/docs/default-source/content-docs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97_10)

Delete the first two sentences of the last paragraph of Subarticle 102-9.1 General and substitute the following:

The CDS shall not be affiliated with the Contractor and must be approved by the Engineer.

Delete Subarticle 102-9.1.1 Approved Independent Channelizing Device Supplier (CDS) Requirements.

Delete the second sentence of the third paragraph of Subarticle 102-9.16 Automated Flagger Assistance Devices (AFAD) and substitute the following:

Use only flaggers trained in the operation of the AFAD.

Delete Article 102-12 Submittals.

## **SECTION 104 – PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**

Expand Article 104-3 Control of Contractor's Operations Which May Result in Water Pollution by the following:

The Contractor shall be liable for any and all penalties, fines, damages, and restitution payments levied against the Department by federal, state, or local environmental agencies and judicial courts of proper jurisdiction which result from failure to control erosion, water pollution, and stormwater across or from the Project site. Further, the Contractor shall indemnify, defend, save, and hold harmless the Department and its authorized representatives from claims, demands, liabilities, and suits whatsoever arising out of, or due to the breach of the Contractor's, its subcontractors', agents' or employees' responsibilities described in this Section.

Expand Article 104-5 Preconstruction Requirements by the following:

The *State of Florida Erosion and Sediment Control Designer and Reviewer Manual* and the *Florida Stormwater, Erosion, and Sediment Control Inspector's Manual* provide guidance in the planning, design, construction, and maintenance of erosion and sediment control systems.

An electronic version of the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual* can be found at the University of Central Florida's Stormwater Management Academy website at the following URL: <http://stormwater.ucf.edu/fileRepository/docs/2013RevisedDesignerManual.pdf>. An electronic version of the *Florida Stormwater, Erosion, and Sediment Control Inspector's Manual* is available from the Florida Department of Environmental Protection's website the following URL: <http://www.dep.state.fl.us/water/nonpoint/docs/erosion/erosion-inspectors-manual.pdf>.

Expand the first paragraph of Subarticle 104-6.1 Limitation of Exposure of Erodible Earth by the following:

Limit the number of construction accesses and locations for nonessential activities that result in soil disturbance.

Expand Article 104-7 Maintenance of Erosion Control Features by the following Subarticles:

**104-7.2 Cleanup by Contractor and Penalties:** Remove soil and construction debris deposited on paved areas subject to traffic at the beginning and end of each workday and prior to and following rainfall events. More frequent schedules may be necessary to prevent runoff pollution and provide traffic safety. The Contractor shall determine the schedule for cleaning paved areas closed to all traffic (including local traffic); however, cleaning shall be scheduled, or erosion control devices shall be provided to prevent water pollution.

If the Contractor fails to remove soil and debris on paved areas, the Engineer may perform such removal with City forces and charge the cost thereof to the Contractor. Such cost shall be deducted from the Contract Price.

**104-7.3 Monitoring by Contractor's Representative.** During rainfalls, between rainfalls when normal work has been suspended due to rain, and at any other times when normal Work has been suspended including weekends and holidays, and rainfall is occurring or has occurred, employ a responsible, knowledgeable representative (this representative and the Contractor's after-hours emergency representative may be the same person) to monitor the Project's erosion control measures a minimum of three times during daylight hours, once during night hours, and immediately following rainstorm events to ensure erosion counter-measures remain in place and are functioning properly. Adequate Contractor resources shall be available to the representative within two (2) hours, when necessary, to repair, replace, or construct erosion control facilities and to repair or cleanup erosion damages. The representative shall be capable of being reached by phone 24 hours each day, seven days each week. While in route to and while on the Work site, the Contractor's representative shall be accessible by phone. Contact phone numbers shall be furnished to the Engineer and shall be updated during the period of the Contract.

## **SECTION 105 – CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS**

Delete Section 105 in its entirety and substitute the following new section:

## **SECTION 105 – TESTING**

### **105-1 General**

The City of Tallahassee shall arrange for, provide, , and pay for the acceptance tests called for in these Specifications. The Contractor is responsible for designing mixes (asphalt, concrete, soil cement, etc.) and all related scheduling, sampling, and testing. Such design mixes with the related sampling and testing shall be performed by a certified, licensed laboratory.

The design mixes shall be submitted for review and approval by the Engineer. The Contractor shall submit its proposed design mixes at least five working days prior to the anticipated start of the Work associated with that design mix.

The type, number and frequency of acceptance tests set forth herein are minimums only. The Engineer may increase the number and frequency of acceptance tests, if deemed necessary.

The Contractor has the right to have its laboratory, at its expense, run any tests for informational purposes only. The Engineer will evaluate such test data and be guided accordingly. When acceptance test results indicate non-compliance with the specification requirements, the Engineer will order additional tests after the Contractor has taken corrective action, to determine that the deficiencies have been corrected. The Contractor shall pay for these additional tests.

## 105-2 Schedule of Tests

<b>Work Item</b>	<b>Method of Test</b>	<b>Frequency &amp; Number of Tests</b>
<b>Embankment and Fill</b>		
Laboratory Density	AASHTO T99 Method C	1 for each type of soil used on the Project.
Density (In-place)	AASHTO T191, T204, T238 with T217	For A-1 & A-2-4 with fines >15%, 1 for each 6" compacted layer per 500 LF or less of roadway. (Minimum of 3)
		For A-1 & A-2-4 with fines <15%, 1 for each 12" compacted layer per 500 LF or less of roadway. (Minimum of 3)
<b>Trench Backfill</b>		
Density (In-place)	AASHTO T191 or T204, T238 with T217	1 for each 6-in lift between structures in the Pipe Envelope; 1 for each 12-in lift between structures in the Top Zone; 1 for each 12-in lift at each structure
<b>Stabilized Subgrade (Type B)</b>		
LBR (After mixing)	FDOT Standard	1 for 500-ft or less as a unit or when soil type changes
Laboratory Testing	AASHTO T180	1 for each type of soil used in the Subgrade
Density (In-place)	AASHTO T191 or T238 with T217	1 for 500-ft or less of roadway. (Minimum of 3)
Thickness	By Excavation	1 for 500-ft or less of roadway. (Minimum of 3)
<b>Limerock Base (LBR-100)</b>		
Laboratory Testing	AASHTO T180	1 per source per Project
Density (In-place)	AASHTO T191 or T238 with T217	1 for 500-ft or less of roadway. (Minimum of 3)
Thickness	By Excavation	1 for 500-ft or less of roadway. (Minimum of 3)
<b>Superpave Asphalt Concrete</b>		
Extraction Gradation Analysis	FM1-168, FM1-T030, FM5-563, AASHTO, TP4-00, FM1-T-209	1 for each day's production.
Density (in-place)	AASHTO T166	5 cores for each sublot Initial Production: 1 Lot = 2,000 Tons = 4 sublots of 500 Tons After Initial Acceptance: 1 Lot = 4,000 Tons = 4 sublots of 1,000 Tons. For Small Projects: Every 200-ft, Minimum of 3 per Project

Thickness	By Coring	5 cores for each subplot For Small Projects: Every 200-ft, Minimum of 3 per Project
<b>Concrete</b>		
Slump, Air Content	ASTM C 143, ASTM C 231	50 CY, or one day's production, whichever is less.
Compressive Strength	ASTM C 39	50 CY, or one day's production, whichever is less.

### Asphaltic Friction Course

The testing requirements are the same as for asphaltic concrete structural course with the exception that no density test is required for FC-2.

\*FM designation in test methods means "Florida Method" as used by FDOT.

Note: Sampling to obtain test samples for extraction gradation analysis and Marshall Stability shall be in accordance with FM 1-T168 with the following modification: The test samples shall be obtained at the asphalt plant or at the laydown site. When sampled on the Project, the sample shall be taken from three separate locations in the load prior to discharging the mix into the paver.

### **105-3 Basis of Payment**

The costs of acceptance tests will be paid for by the City of Tallahassee with the exception of the costs of retesting (failure) and additional tests to delineate the limits of failures, costs for standby time, and costs for cancelled tests, which will be borne by the Contractor. These costs will be deducted from the Contract price. Design mixes with related sampling and testing and additional tests accomplished for the Contractor's information shall be paid for by the Contractor.

## **SECTION 110 – CLEARING AND GRUBBING**

Delete the third paragraph of Subarticle 110-6.5 Asbestos Containing Materials (ACM) Not Identified Prior to the Work and substitute the following:

The Engineer will coordinate selecting and tasking an Asbestos Contractor or Contamination Assessment / Remediation Contractor (CAR). Provide access to the potential contamination area. Preliminary investigation by the Asbestos/CAR Contractor will determine the course of action necessary for site security and the steps necessary to resolve the contamination issue.

Delete the third sentence of Subarticle 110-11.2 Selective Clearing and Grubbing and substitute the following:

When separate payment is provided, Tree Root, Branch Purining, and Tree Removal will be paid per each tree.

Delete the final payment item of Subarticle 110-12.8 Payment Items and substitute the following:

Item No. 110-86-                   Delivery of Salvageable Material to Department – lump sum.

## **SECTION 120 – EXCAVATION AND EMBANKMENT**

Delete the third paragraph of Subarticle 120-1.2 Unidentified Areas of Contamination and substitute the following:

The Engineer will coordinate selecting and tasking a Contamination Assessment / Remediation Contractor (CAR). Provide access to any potential contamination area. Preliminary investigation by the CAR Contractor will determine the course of action necessary for site security and the steps necessary under applicable laws, rules, and regulations for additional assessment and/or remediation work to resolve the contamination issue.

Delete the second sentence of the first paragraph of Subarticle 120-2.3 Subsoil Excavation and substitute the following:

For ponds and ditches that identify the placement of blanket material, the existing surface is the bottom of the blanket material.

Delete the second paragraph of Subarticle 120-2.3 Subsoil Excavation.

Delete paragraph 3.b. of Subarticle 120-8.2.3 Thick Lift Requirements.

Delete the second and third sentences of Subarticle 120-10.2.5 Test Selection and Reporting and substitute the following:

Do not use notepads or worksheets to record data for later transfer to the Density Log Book.

Delete the third sentence of the first paragraph of Subarticle 120-10.6.1 Standard Proctor Maximum Density Determination and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will perform the Resolution testing.

Delete the last paragraph of Subarticle 120-10.6.2 Density Testing and substitute the following:

Record QC test results in the density logbook on approved Department forms provided by the Engineer. Submit the original, completed density logbook to the Engineer at final acceptance.

Delete the third sentence of the first paragraph of Subarticle 120-10.6.3 Soil Classification and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will perform the Resolution testing.

Delete the third sentence of Subarticle 120-10.6.4 Organic Content and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will perform the Resolution testing.

Delete the last paragraph of Subarticle 120-12.6 Subsoil Excavation and substitute the following:

When no item for Subsoil Excavation is shown in the Contract but Subsoil Excavation is subsequently determined to be necessary, such unanticipated Subsoil Excavation will be paid for by Change Order.

## **SECTION 125 – EXCAVATION AND EMBANKMENT FOR STRUCTURES AND PIPE**

Delete the last sentence of Subarticle 125-4.2.3 Removal of Obstructions and substitute the following:

Compensation, if warranted, will be by Change Order.

Expand Article 125-6 Disposal of Surplus by the following:

Unless noted otherwise in the plans, take ownership of all excavated materials not suitable for backfilling and of all excavated suitable materials that are not required for backfilling or for other use on site and dispose of them outside the Project limits at no additional cost to the Department.

Delete Subarticle 125-8.3.1 General and substitute the following:

**125-8.3.1 General:** Trenches for pipe may have up to four zones that must be backfilled.

Lowest Zone: The lowest zone is backfilled for deep undercuts up to within 4 to 6 inches of the bottom of the pipe.

Bedding Zone: The zone above the Lowest Zone is the Bedding Zone. It will be a minimum of 4 inches of select material below the bottom of the pipe. When rock or other hard material has been removed to place the pipe, the Bedding Zone will be the 12 inches of soil below the bottom of the pipe.

Cover Zone: The Cover Zone is select material that is placed above the Bedding Zone after the pipe has been laid, as defined and shown on the pipe installation detail. The Bedding Zone and Cover Zone are considered the Soil Envelope for the pipe.

Top Zone: The Top Zone extends from the top of the Cover Zone to the top of embankment.

Delete Subarticle 125-9.2.1 Density and substitute the following:

**125-9.2.1 Density:** Place and ensure backfill materials achieve an equal or higher degree of compaction than undisturbed materials adjacent to the work. Compaction percentages are percentages of maximum dry density as determined by indicated ASTM standards. Unless noted otherwise on the plans or more stringently by other sections of these specifications, place and ensure the degree of compaction of trench backfill does not fall below the following percentages of the maximum density at optimum moisture content.

Minimum Compaction Requirements

Location	Limits	Density
Beneath and within 5 feet of buildings	All Zones	100% Standard Proctor <sup>(1)</sup>
Paved areas (inside 1V:2H control line of roadway)	Top 15 inches of Top Zone	100% Standard Proctor <sup>(1)</sup>
	Bedding Zone, Cover Zone and remaining portion of Top Zone	95% Standard Proctor <sup>(1)(2)</sup>
	Lowest Zone	85% Standard Proctor <sup>(1)(2)</sup>
Non-paved areas (outside 1V:2H control line of roadway)	Bedding Zone and Cover Zone	95% Standard Proctor <sup>(1)(2)</sup>
	Lowest Zone and Top Zone	85% Standard Proctor <sup>(1)(2)</sup>
Around drainage structures	One pipe diameter but not less than 3 feet from the outside face of the structure	100% Standard Proctor <sup>(1)</sup>

Notes:

- (1) Obtain a minimum Quality Control (QC) density in any LOT with this specified percentage of the Standard Proctor maximum density as determined by FM 1-T 099, Method C.
- (2) When using an optional pipe material, use the manufacturer's minimum compaction requirement if greater than this specification.

Expand Subarticle 125-13 Basis of Payment by the following:

**125-13.1 Strengthening Foundations:** The work of strengthening foundations (as provided in 125-4.2) shall be paid for by Change Order unless such work is covered by a bid item.

**125-13.2 Backfilling for Additional Support:** The work of providing additional support by backfilling with sand or other satisfactory material, where called for by the Engineer (as specified in 125-8), shall be paid for by Change Order.

**125-13.3 Removal and Replacement of Material Unsuitable for Backfill:** When material excavated for storm sewers, sanitary sewers, water mains, or other conduits and related structures is determined to be unsuitable for use as backfill, it shall be removed and disposed of away from the site at no additional cost to the Department and replaced with an approved granular material. This granular backfill material shall be obtained, to the extent possible, from the normal grading operations within the Project limits. If an insufficient quantity of suitable material is available from within the Project limits, the Contractor shall be responsible for securing, furnishing, and placing acceptable backfill materials from sources outside the Project limits at no additional cost to the Department.

Where select bedding material is specified for the installation of pipe and direct payment is provided, the quantity of such select material obtained either as commercial material or from the normal grading operations within the Project limits other than in the immediate vicinity of the pipe to be bedded, will be

paid for at the Contract price per cubic yard for Select Bedding Material, as authorized by the Engineer. No payment for this material will be made for material available from the excavation for the pipe culvert or from other material available from the grading operations at a location not sufficiently remote as to require loading on trucks.

## **SECTION 145 – GEOSYNTHETIC REINFORCEMENT**

Delete the second sentence of the first paragraph of Article 145-2 Responsibility and substitute the following:

Submit shop drawings showing the details and distribution of the selected geosynthetics that meet the design shown in the Plans.

Delete the first sentence of Subarticle 145-4.2.3 Backfill Placement and substitute the following:

Perform work in accordance with an approved QC Plan.

Delete the first and second paragraphs of Subarticle 145-5 Certification and substitute the following:

For geosynthetic materials, submit to the Engineer, at least ten days prior to placement, a certification from the manufacturer confirming the material is appropriate for the intended use. The manufacturer's certification shall be attested to within the past one year by a person having legal authority to bind the manufacturing company, and must include the project number, LOT number, and product name.

Acceptance of furnished materials will be based on the manufacturer's certification and visual inspection by the Engineer.

Delete the third sentence of Subarticle 145-7.1.3 Soil Classification, Organic Content, and pH Testing and substitute the following:

An AASHTO accredited laboratory will perform resolution testing.

## **SECTION 160 – STABILIZING**

Delete the third sentence of Subarticle 160-2.2.1 Local Stabilizing Material and substitute the following:

If the QC and Verification results do not compare, the Engineer will take one additional sample of material from the source in question and an AASHTO accredited laboratory will perform resolution testing.

Delete the third sentence of Subarticle 160-4.8.1.2 Resolution Procedure and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will perform Resolution testing on the additional sample.

## **SECTION 200 – ROCK BASE**

Delete Item 3 of Subarticle 200-2.2 Existing Rock and substitute the following:

3. The Engineer will coordinate review of the "Plan" with an AASHTO accredited laboratory.

Delete the last sentence of Item 5 of Subarticle 200-2.2 Existing Rock and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will sample and test the preliminary stockpile to verify its compliance with this Section.

Delete Item 6 of Subarticle 200-2.2 Existing Rock and substitute the following:

6. If all test results meet the requirements of this Section, the Engineer will notify the Contractor in writing of the approved status of the preliminary stockpile based on the analysis of the test data performed by the AASHTO accredited laboratory.

Delete the fourth sentence of Item 7 of Subarticle 200-2.2 Existing Rock and substitute the following:

An AASHTO accredited laboratory designated by the Engineer may also perform sampling and testing.

Delete Subarticle 200-7.2.3 Pit Proctor.

Delete the first paragraph of Subarticle 200-7.3.1.2 Thickness and Surface Testing Requirements and substitute the following:

Notify the Engineer a minimum of 24 hours before checking base depths and surface checking. Determine test locations including Stations and Offsets, using a Random Number generator. Do not perform depth and surface checks until the Engineer is present to witness. Perform thickness check on the finished base or granular subbase component of a composite base. Provide traffic control, coring/boring equipment, and an operator for the coring/boring equipment. Traffic control is to be provided in accordance with the standard maintenance of traffic requirements of the Contract.

Delete the fourth sentence of Subarticle 200-7.4.1 Modified Proctor Maximum Density and substitute the following:

An AASHTO accredited laboratory designated by the Engineer will perform Resolution testing.

Delete Subarticle 200-7.4.2 Pit Proctor.

## **SECTION 234 – SUPERPAVE ASPHALT BASE**

Delete Article 234-1 Description and substitute the following:

### **234-1 Description.**

Construct a Superpave asphalt concrete base course as defined in these Specifications based on the design traffic level(s) of the project. Base course mixes are designated as Type B-12.5. The Contractor may use a Type SP-12.5 mixture, (Traffic Level B or C) in lieu of a Type B-12.5 at no additional cost to the Department. The five traffic levels are shown in the table below.

Superpave Traffic Levels	
Traffic Level	Traffic Level ( $1 \times 10^6$ ESAL's)
A	<0.3
B	0.3 to <3
C	3 to <10
D	10 to <30
E	$\geq 30$

On projects with only Traffic Level A and/or B asphalt mixtures, select Option 1 or Option 2 Mixture Acceptance as specified in 234-5. The selection shall apply to all mixes, including base, structural and friction course mixes, on the entire project. If a contract contains Traffic Level A and/or B asphalt mixes and also contains Traffic Level C, D, and/or E asphalt mixes, accept the asphalt mixes only under Option 1 Material Acceptance.

When Option 2 Mixture Acceptance is selected, the requirements of 330-2 will not apply, with the exception of the roadway requirements as defined in 330-2.2.

Obtain Superpave asphalt base from a plant that is currently on the Department's Production Facility Listing.

Delete Article 234-9 Method of Measurement and substitute the following:

The quantity to be paid for will be the plan quantity. The pay area will be adjusted based upon the following formula:

Pay Area = Surface Area (Project Average Spread Rate/Specified Spread rate for the Total Thickness).

Where: The project average spread rate is calculated by totaling the arithmetic mean of the average daily spread rate values for each layer, and the specified spread rate for the total thickness is based upon the plan thickness converted to spread rate as defined in 234-8.1.

The pay area shall not exceed 110% of the designed surface area.

Prepare and submit a Certification of Quantities to the Engineer.

## **SECTION 285 – OPTIONAL BASE COURSE**

Delete the third paragraph of Article 285-9 Basis of Payment.

## **SECTION 286 – DRIVEWAY BASE**

Delete the first sentence of Article 286-2 Materials and substitute the following:

For driveway base material, use any material meeting the minimum requirements provided in Standard Plans, Index 330-001 and currently specified by the Florida Department of Transportation for base or surface construction, except do not use hot bituminous mixtures intended for use as open-graded friction course.

## **SECTION 320 – HOT MIX ASPHALT – PLANT METHODS AND EQUIPMENT**

Delete Subarticle 320-2.3 Personnel Qualifications and substitute the following:

**320-2.3 Personnel Qualifications:** Provide qualified QC Technicians.

Delete the second sentence of Subarticle 320-2.4 Hot Mix Asphalt Testing Laboratory Requirements and substitute the following:

The laboratory must be qualified under the Florida Department of Transportation's Laboratory Qualification Program.

Delete the last sentence of Item 5. Equipment and Supplies of Subarticle 320-2.4 Hot Mix Asphalt Testing Laboratory Requirements and substitute the following:

In the event testing equipment goes out of service during production, the Contractor may elect to use replacement equipment at another qualified laboratory for up to 72 hours upon notification of the Engineer.

## **SECTION 330 – HOT MIX ASPHALT – GENERAL CONSTRUCTION REQUIREMENTS**

Delete Subarticle 330-2.2 Personnel Qualifications and substitute the following:

**330-2.2 Personnel Qualifications:** Provide qualified QC Technicians.

Delete Subarticle 330-9.4.6.2 Laser Acceptance.

Expand Subarticle 330-9.5.2 Reduction in Pay Item Quantity by the following:

When the pay quantity is in square yards, the Department will base the reduction on the area within the defective area (the length by the lane width) multiplied by the ratio of the layer thickness to the total thickness of the type of mix specified.

Add the following new Articles:

### **330-11 Correcting Deficient Thickness.**

**330-11.1 Allowable Deficiencies:** When the Department pays for the pavement on a square yard basis, the Engineer will determine the thickness from the length of the core borings as specified in 330-15.1. The Engineer will allow a maximum deficiency from the specified thickness as follows:

1. For pavement of a specified thickness of 2½ inches or more: ½ inch.
2. For pavement of a specified thickness of less than 2½ inches: ¼ inch.

### **330-11.2 Pavement Exceeding Allowable Deficiency in Thickness:**

**330-11.2.1 When Deficiency is Seriously in Excess:** Where the deficiency in thickness is: (1) in excess of  $\frac{3}{8}$  inch for pavement of less than  $2\frac{1}{2}$  inches in specified thickness, or (2) in excess of  $\frac{3}{4}$  inch for pavement of specified thickness of  $2\frac{1}{2}$  inches or more, correct the deficiency either by replacing the full thickness for a length extending at least 50 feet from each end of the deficient area, or, when the Engineer allows, by overlaying as specified in 330-11.2.3.

As an exception to the above, the Contractor may leave pavement outside the main roadway in place without compensation when the Engineer allows, even though the deficiency exceeds the tolerance as specified above.

The Department will not compensate the Contractor for any pavement removed or for the work of removing such pavement.

**330-11.2.2 When Deficiency is Not Seriously in Excess:** When the deficiency in the thickness of the pavement is over  $\frac{1}{4}$  inch but not more than  $\frac{3}{8}$  inch for pavement of specified thickness less than  $2\frac{1}{2}$  inches, or when the deficiency in thickness is over  $\frac{1}{2}$  inch but not more than  $\frac{3}{4}$  inch for pavement of specified thickness of  $2\frac{1}{2}$  inches or greater, the Engineer will allow the Contractor to leave such pavement in place, but without compensation. The Department will determine the square yard area, for which it will make no payment, by multiplying the product of the total distance between acceptable cores by the lane width which the Contractor laid at the particular pass in which deficient thickness was indicated. Perform all overlaying and compacting at no expense to the Department.

**330-11.2.3 Correcting Deficiency by Adding New Surface Material:** For any case of excess deficiency of the pavement, if approved by the Engineer for each particular location, correct the deficient thickness by adding new surface material, and compact it to the same density as the adjacent surface. The Engineer will determine the area to be corrected and the thickness of new material added as specified in 330-9.4.5. Perform all overlaying and compacting at no expense to the Department.

## **330-12 Calculations for Thickness of Pavement to be Paid for (Applicable Only Where the Pavement Is to be Paid for by the Square Yard).**

**330-12.1 Core Borings:** When the Department is ready to core the finished asphalt construction for thickness, provide traffic control, coring equipment, and an operator to obtain the cores. Provide traffic control in accordance with the standard maintenance of traffic requirements as specified in this Contract. The Department will make no additional payment for traffic control or coring. The Engineer will select the coring locations and make the acceptance measurements.

Provide a representative to be present during the entire coring operations for acceptance purposes.

The Engineer will determine the thickness of the pavement from the length of cores, at least 2 inches in diameter, taken at random points on the cross-section and along the roadway. The Engineer will locate each core to represent a section of roadway no longer than 200 feet, regardless of the number of lanes. The Engineer will determine the thickness for paved shoulders and widening separate from the mainline roadway and will locate each core to represent a section no longer than 400 feet for each shoulder or widening. The Engineer will determine the average thickness from the measured thicknesses, in accordance with the procedure and criteria as specified herein.

If the Contractor believes that the number of cores taken is insufficient to properly indicate the thickness of the pavement, he may request that the Engineer select additional boring locations. The Department will deduct the cost of selecting additional boring locations and measuring the cores from any sums due the Contractor unless such borings indicate that the pavement within the questioned area is of specified thickness.

### **330-12.2 Criteria for Calculations:**

a. The Engineer will calculate average thickness for the total length of project.  
b. The volume of pavement represented by the difference between the average thickness and the specified thickness shall be converted into equivalent square yards of pavement of specified thickness, and the quantity thereby obtained shall be added to or deducted from the pay areas, as appropriate. The maximum average thickness of pavement upon which payment will be made shall be limited as follows:

(1) For pavement of a specified thickness less than  $2\frac{1}{2}$  inches: the specified thickness plus  $\frac{1}{4}$  inch.

(2) For pavement of 2½ inches up to 5 inches in specified thickness: the specified thickness plus ¾ inch.

(3) For pavement of 5 inches or more in specified thickness: the specified thickness plus ½ inch.

c. The Engineer will not take into account in the calculations areas of deficient-thickness pavement that the Contractor left in place for no compensation as specified in 330-11.2.

d. Where the Contractor corrects areas of defective surface or deficient thickness by overlaying with additional material, the Engineer will use the specified thickness for such areas in the calculations.

## **SECTION 334 – SUPERPAVE ASPHALT CONCRETE**

Delete the second sentence of the second paragraph of Subarticle 334-1.1 General.

Delete Item 3 of Subarticle 334-2.3.1 General Requirements and substitute the following:

3. Use RAP from a Florida Department of Transportation approved stockpile or millings from a Florida Department of Transportation project.

Delete the fourth sentence of the first paragraph of Subarticle 334-3.2.1 General.

Delete Item 6 of Subarticle 334-3.2.7 Additional Information and substitute the following:

6. The bulk specific gravity ( $G_{sb}$ ) value for each individual aggregate and RAP component, as identified in the Florida Department of Transportation's aggregate control program.

Delete the third sentence of the first paragraph of Article 334-4 Producer Process Control (PC).

Delete the first sentence of the second paragraph of Item 3 of Subarticle 334-5.4.4 Individual Test Tolerances for QC Testing and substitute the following:

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in the asphalt producer's Quality Control Plan.

Delete the text of Article 334-7 Method of Measurement and substitute the following:

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the area of the pavement in square yards.

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent and the tack coat application as directed in 300-8. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

Prepare a Certification of Quantities for the quantity of Superpave asphalt concrete produced and accepted and submit this certification to the Engineer.

Delete the last sentence of the second paragraph of Subarticle 334-8.1 General and substitute the following:

The pay adjustment will be computed by multiplying a Composite Pay Factor for the LOT by the bid price per square yard.

Delete the last paragraph of Subarticle 334-8.3 Composite Pay Factor (CPF) and substitute the following:

The pay adjustment shall be computed by multiplying the Composite Pay Factor for the LOT by the bid price per square yard.

Delete Subarticle 334-8.4 Payment and substitute the following:

**334-8.4 Payment:** Payment will be made under:

Item No. 334- 1- Superpave Asphaltic Concrete - per square yard.

## **SECTION 337 – ASPHALT CONCRETE FRICTION COURSES**

Delete the second sentence of the second paragraph of Article 337-1 Description.

Delete Subarticle 337-4.1 FC-5 and substitute the following:

**337-4.1 FC-5:** Provide a mix design that was recently provided by the Florida Department of Transportation.

Delete the first sentence of the second paragraph of Subarticle 337-6.2.1 Individual Test Tolerances for FC-5 Production and substitute the following:

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Managers and/or Asphalt Plant Level II technicians responsible for the decision to resume production after a quality control failure, as identified in the asphalt producer's Quality Control Plan.

Delete the first paragraph of Article 337-11 Method of Measurement and substitute the following:

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the area of the pavement in square yards.

Delete the last paragraph of Article 337-11 Method of Measurement and substitute the following:

Prepare a Certification of Quantities for the quantity of asphalt concrete friction course produced and accepted and submit this certification to the Engineer.

Delete the last paragraph of Subarticle 337-12.1 General and substitute the following:

Based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for individual quality characteristics. The pay adjustment will be computed by multiplying a Composite Pay Factor for the LOT by the bid price per square yard.

Delete Subarticle 337-12.4 Payment and substitute the following:

**337-12.4 Payment:** Payment will be made under:

Item No. 337- 7- Asphaltic Concrete Friction Course - per square yard.

## **SECTION 338 – VALUE ADDED ASPHALT PAVEMENT**

Delete Section 338 in its entirety.

## **SECTION 339 – MISCELLANEOUS ASPHALT PAVEMENT**

Delete Article 339-7 Method of Measurement and substitute the following:

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the area of the pavement in square yards. Prepare a Certification of Quantities for the quantity of miscellaneous asphalt pavement produced and accepted and submit this certification to the Engineer.

Delete the last paragraph of Article 339-8 Basis of Payment and substitute the following:

Payment will be made under:

Item No. 339- 1- Miscellaneous Asphalt Pavement – per square yard.

## **SECTION 341 – ASPHALT MEMBRANE INTERLAYER**

Delete the last sentence of Article 341-1 Description.

Delete Subarticle 341-8.3 Submittal of Certification of Quantities for Bituminous Material and substitute the following:

**341-8.3 Submittal of Certification of Quantities for Bituminous Material:** Prepare a Certification of Quantities for the quantity of bituminous material placed and accepted and submit this certification to the Engineer.

## **SECTION 346 – STRUCTURAL PORTLAND CEMENT CONCRETE**

Delete the first sentence of the first paragraph of Article 346-1 Description and substitute the following:

Use a concrete mix design comprised of a mixture of Portland cement, aggregate, water, admixtures, and supplementary cementitious materials.

Delete the second sentence of the second paragraph of Article 346-1 Description.

Delete Subarticle 346-2.5 Admixtures and substitute the following:

**346-2.5 Admixtures:** Ensure admixtures are used in accordance with the manufacturer's recommendations and meeting the requirements of Section 9.2, Volume II of the Florida Department of Transportation Materials Manual.

Delete the second paragraph of Article 346-8 Plastic Concrete Sampling and Testing and substitute the following:

Ensure that each truck has a valid inspection card issued by the Florida Department of Transportation, the revolution counter on the mixer is working properly, and calibration of the water dispenser has been performed within the last twelve months and verify batch weights within required limits of the mix design. Reject any concrete batches that are delivered in trucks that do not have mixer identification cards. The Contractor may remove the mixer identification card when a truck mixer is discovered to be in noncompliance. When the mixer identification card is removed for noncompliance, forward the card to the Florida Department of Transportation's District Materials Engineer in the District where the plant is located.

Delete the second sentence of the third paragraph Article 346-8 Plastic Concrete Sampling and Testing and substitute the following:

Ensure qualified QC technicians are present and performing tests throughout the placement operation.

Delete the third paragraph of Subarticle 346-9.1 General and substitute the following:

Test the QC samples for compressive strength at the age of 28 days in a qualified laboratory.

Delete the fourth paragraph of Subarticle 346-9.2.1 Reduced Frequency for Acceptance Tests and substitute the following:

The average of the consecutive compressive strength test results, based on the class of concrete, can be established using historical data from a previous Florida Department of Transportation project. The tests from the previous Florida Department of Transportation project must be within the last 60 calendar days or may also be established by a succession of samples on the current project. Only one sample can be taken from each LOT. Test data must be from a qualified laboratory. Obtain Department approval before beginning reduced frequency LOT's.

Delete the third sentence of Subarticle 346-9.4.1 Small Quantities of Concrete and substitute the following:

Prepare a quality control plan for the concrete placement operation.

## **SECTION 347 – PORTLAND CEMENT CONCRETE – CLASS NS**

Delete the second sentence of the first paragraph of Subarticle 347-3.1 Concrete Production Requirements.

## **SECTION 353 – CONCRETE PAVEMENT SLAB REPLACEMENT**

Delete the last sentence of the second paragraph of Subarticle 353-3.1 Mixture Proportions.

## **SECTION 355 – VALUE ADDED PORTLAND CEMENT CONCRETE PAVEMENT**

Delete Section 355 in its entirety.

## **SECTION 400 – CONCRETE STRUCTURES**

Delete the last sentence of the last paragraph of Article 400-1 Description.

## **SECTION 407 – THREE-SIDED PRECAST CONCRETE CULVERT**

Delete the last paragraph of Subarticle 407-4.1 General and substitute the following:

Test all QC samples for compressive strength in a qualified laboratory.

Delete the third sentence of Article 407-5 Design Requirements and substitute the following:

Submit design calculations, shop drawings and load rating for approval.

Delete the first sentence of the second paragraph of Subarticle 407-5 Design Requirements and substitute the following:

Line the channel between footings with either a 6 inch minimum thick cast-in-place reinforced concrete slab with a 30 inch minimum depth toe wall at the inlet and outlet end of the structure, or a blanket of revetment designed in accordance with the Florida Department of Transportation's Drainage Manual.

## **SECTION 410 – PRECAST CONCRETE BOX CULVERT**

Delete the first sentence of Article 410-1 Description and substitute the following:

Provide precast four-sided concrete box culverts as specified in the Contract Documents or as an alternative to cast-in-place concrete box culverts.

Delete the last paragraph of Subarticle 410-3.1 General and substitute the following:

Test all QC samples for compressive strength in a qualified laboratory.

Delete the first sentence of Subarticle 410-4.1.1 Equivalent to Cast-In-Place Designs and substitute the following:

Provide precast box segments identical to the plan details, including reinforcing steel grade, sizes and spacings, concrete cover, concrete class, and slab and wall dimensions.

Delete the first sentence of Subarticle 410-4.1.3 Modified or Special Designs and substitute the following:

Submit Modified Designs which differ from the standard precast designs in 410-4.1.2 with modifications to the wall and slab thickness, or haunch dimensions.

Delete the second sentence of the first paragraph of Subarticle 410-4.2 Design Submittals and substitute the following:

Submit design calculations, revised plans, and load rating for Modified or Special Designs.

Delete the first sentence of Article 410-12 Shop Drawings and substitute the following:

Submit details of all precast box culvert elements to the Engineer prior to manufacturing.

Delete the last paragraph of Article 410-14 Basis of Payment and substitute the following:

When precast concrete box culvert is substituted for cast-in-place concrete box culvert, payment will be made at the Contract unit prices for concrete (culverts) and reinforcing steel (roadway). The quantities to be paid for will be those quantities for which payment would be made if cast-in-place construction was utilized.

Cast-in-place transitions, wingwalls, cut-off walls, endwalls, and headwalls will be paid for under the pay items for concrete (culverts) and reinforcing steel (roadway).

Payment will be made under:

Item No. 410- 70-      Precast Concrete Box Culvert - per foot.

## SECTION 413 – SEALING CRACKS AND CONCRETE STRUCTURE SURFACES

Delete the text of Article 413-1 Description and substitute the following:

Seal concrete surfaces and cracks in concrete using materials, surface preparation, and application of penetrant sealers and high molecular weight methacrylates (HMWM) as specified in this Section and in accordance with the manufacturer recommendations. Consult with the Engineer in the event of conflict between the manufacturer's recommendations and this specification. Perform surface preparation and application to all areas as shown in the plans or as directed by the Engineer.

Delete the second paragraph of Subarticle 413-3.1 General and substitute the following:

The rate of application (gl/ft<sup>2</sup> of concrete) and the application method and equipment must be approved by the Engineer prior to commencement of work based on the size, depth and the internal condition of cracks. Submit a written sealer application plan based on the above described crack characteristics for approval by the Engineer. In addition, provide a minimum of 14 days advanced notice so that Department personnel may be present at the beginning of work to evaluate the cracks and provide final approval of the application rate. Make arrangements with the material manufacturer to provide on-site technical assistance for the initial application and certify that the mixing ratio, application methods, and sand broadcasting are correct and in accordance with their recommendations.

Delete Subarticle 413-3.2 Materials and substitute the following (retain Subarticle 413-3.2.1 Properties, Subarticle 413.3.2.2 Sand, and Subarticle 413.3.2.3 Identifier):

**413-3.2 Materials:** The methacrylate system must be a three component system consisting of: a) methacrylate monomer, b) cumene hydroperoxide (CHP) initiator, and c) cobalt promoter. The methacrylate system cannot contain wax. Use a HMWM system that is approved by the Florida Department of Transportation and included on the Department's Approved Products List. Use initiator and promoter approved by the monomer manufacturer.

Delete the last paragraph of Subarticle 413-3.4.3 Polymer Application (Mobile Distribution) and substitute the following:

The typical application rate of the material is approximately 100 square feet per gallon. Prior to application of the monomer, the Engineer will determine the final production application rate based on the internal characteristics of the cracks as determined from Contractor supplied cores that the Engineer approves as being representative of the overall cracking conditions.

## SECTION 415 – REINFORCING FOR CONCRETE

Delete the last sentence of the fifth paragraph of Subarticle 415-5.13.3 Plastic Bar Supports and Spacers.

## SECTION 425 – INLETS, MANHOLES, AND JUNCTION BOXES

Delete the last sentence of the first paragraph of Subarticle 425-2.2 Mortar and substitute the following:

Submit documentation from a Florida Department of Transportation approved mine or concrete plant confirming the sand or sand substitute meets the requirements of 902-3.2.

Delete the second paragraph of Subarticle 425-3.2 Gratings, Covers, and Frames and substitute the following:

Use cast iron frames and covers of either 24 inches or 36 inches or optional three-piece cast iron adjustable frames and covers as indicated in Standard Plans, Index 425-001. A frame with a 36 inch opening and a two-piece cover shall be used on each inlet, manhole, and junction box where the depth of the structure exceeds 5 feet, unless otherwise noted or unfeasible.

Delete Subarticle 425-7.7 Adjusting Structures and substitute the following:

**425-7.7 Adjusting Structures:** Adjust existing manholes, catch basins, inlets, valve boxes, etc., within the limits of the proposed work, to meet the finished grade of the proposed pavement, or if outside of the proposed pavement area, to the finished grade designated on the plans for such structures. Adjust structures prior to placement of final asphalt pavement surface layer.

Manholes and valve boxes located in pavement areas shall be adjusted to match the final profile grade and cross slope of the pavement. Manholes and valve boxes shall be adjusted to within 1/4 inch of the proposed profile grade of the finished pavement and to within 1/8 inch of the plane and cross slope of the roadway.

Adjustments to manholes shall be made with bricks and mortar, grade rings and mortar, or ductile iron extension rings of the type that do not require removal of the existing manhole frame.

For adjustments to manholes requiring removal of the manhole frame, all materials surrounding the structure shall be excavated to the depth required to make the adjustment, and all excessive and loose mortar and debris shall be removed. Structural steel plate (minimum 1/2-inch-thick) shall be used to cover cavities that are hazardous to traffic. After adjustment, joints shall be completely filled with cement mortar and troweled smooth on the inside and outside to seal the manhole.

If extension rings are used, they shall be produced by the manufacturer of the existing frame and cover. Extension rings shall be secured in place by an epoxy adhesive designed especially for this purpose and used in accordance with the manufacturer's instructions.

Where a manhole is within pavement, a minimum of 8 inches of backfill consisting of a mixture of 8:1 sand-cement shall be placed around the manhole to 8 inches beneath the bottom of the first pavement layer. The final 8 inches shall be filled with 3,000 psi concrete to a width of 2 feet around the frame and shall be troweled smooth to match the grade at the bottom of the first pavement layer.

Where a valve box is within pavement, 12 inches of 3,000 psi concrete shall be placed around the valve box to a width of 12 inches and shall be troweled smooth to match the grade at the bottom of the first pavement layer.

## **SECTION 430 – PIPE CULVERTS**

Delete the last sentence of the second paragraph of Article 430-1 Description.

Delete the first sentence of the fourth paragraph of Article 430-1 Description and substitute the following:

If the plant's Producer Quality Control Plan is suspended by the Florida Department of Transportation, accept responsibility of either obtaining products from a plant with an approved Quality Control Plan, or await re-approval of the plant.

Delete Subarticle 430-3.1 General and substitute the following:

**430-3.1 Storm Drains:** If the Plans do not designate a type of pipe, either steel reinforced concrete pipe (minimum Class III) or Florida Department of Transportation approved polypropylene pipe may be used. Non-reinforced concrete pipe may not be used. When the plans designate a type of pipe, use only the type designated. A type of pipe other than the type designated may not be used without written approval from the Engineer.

Polypropylene pipe may not be used for open-ended pipe runs, such as pipes connecting to ditches or ponds. On open-ended pipe runs, steel reinforced concrete pipe shall be used for the entire run of pipe from the open end to the nearest drainage structure.

Delete Subarticle 430-3.2 Side Drain and substitute the following:

**430-3.2 Side Drains and Cross Drains:** If the Plans do not designate a type of pipe, steel reinforced concrete pipe (minimum Class III) is to be used. If the Plans do not designate a type of pipe for the extension of an existing side drain or cross drain, the pipe extension is to be of the same size and type as the existing pipe. Non-reinforced concrete pipe may not be used. Extensions of existing pipes of materials that are no longer produced shall be extended with the most similar pipe material available. Polypropylene pipe may not to be used for open-ended pipes such as side drains or cross drains where end treatment would normally be installed.

Expand Subarticle 430-4.4 Backfilling by the following:

Backfill around polypropylene pipe shall be in accordance with the manufacturer's specifications.

Delete the last paragraph of Subarticle 430-4.6 End Treatment and substitute the following:

Polypropylene pipe may not to be used for open-ended pipes where end treatment would normally be installed.

Delete the second sentence of Subarticle 430-4.6.3 Mitered End Sections and substitute the following:

Mitered end sections are not to be constructed of polypropylene. Use only concrete or metal mitered end sections as detailed in the Standard Plans.

Expand Subarticle 430-4.8 Pipe Inspection by the following:

Each drainage structure and pipe must be identified in the Pipe Observation Summary Report and in the pipe inspection video by the Facility Identification (FID) number as provided by the Engineer. The file naming convention of each pipe inspection video must contain the FID of the pipe associated with the video. All Pipe Observation Summary Reports must be compatible with Pipeline Observation System Management (POSM) software.

Delete the last paragraph of Subarticle 430-12.4 Plugging Pipes and substitute the following:

When the project includes no quantities for new pipe culverts, and temporary plugs are required for existing pipe culverts, the cost will be considered as extra work.

## **SECTION 435 – STRUCTURAL PLATE PIPE AND PIPE ARCH CULVERTS**

Delete the last sentence of the second paragraph of Article 435-1 Description.

## **SECTION 449 – PRECAST CONCRETE DRAINAGE PRODUCTS**

Delete the last sentence of the third paragraph of Article 449-1 Description.

Delete the first sentence of the last paragraph of Article 449-1 Description and substitute the following:

If the plant's Producer Quality Control Plan is suspended by the Florida Department of Transportation, accept responsibility of either obtaining products from a plant with an approved Quality Control Plan, or await re-approval of the plant.

## **SECTION 450 – PRECAST PRESTRESSED CONCRETE CONSTRUCTION**

Delete the last sentence of the third paragraph of Article 450-1 Description.

Delete the first paragraph of Subarticle 450-2.1 General and substitute the following:

Develop a Quality Control Plan to assure the specified quality of all applicable materials and related production.

Delete Subarticle 450-2.2 Plant and substitute the following:

**450-2.2 Plant:** Ensure each plant has an onsite QC Manager or designee at all times during fabrication.

Delete the fifth paragraph of Subarticle 450-8.2.1 Operations and substitute the following:

Production personnel will perform testing operations under the supervision of a qualified QC Inspector/Technician, or certified personnel may perform tensioning operations directly.

## **SECTION 452 – PRECAST SEGMENTAL BRIDGE CONSTRUCTION**

Delete the first paragraph of Article 452-2 Qualification of Contractor's Personnel.

Delete the last sentence of the first paragraph of Subarticle 452-5.5 Epoxy Bonding Systems.

## **SECTION 455 – STRUCTURES FOUNDATIONS**

Delete the first paragraph of Article 455-1 General Requirement and substitute the following:

If available, the Contractor may examine soil samples and/or rock cores obtained during soil boring operations at the office of the engineer that performed the geotechnical investigation.

## **SECTION 458 – BRIDGE DECK JOINTS**

Delete the second sentence of Subarticle 458-2.4 Strip Seal Joint System.

Delete the first sentence of Subarticle 458-3.1 All Joint Types (with the exception of Poured Joints) and substitute the following:

Submit shop drawings for any applicable joint system supplied.

## **SECTION 460 – STRUCTURAL STEEL AND MISCELLANEOUS METALS**

Delete the last sentence of the second paragraph of Subarticle 460-1.1 General.

Delete the first two paragraphs of Subarticle 460-1.2 Fabrication Categories and substitute the following:

Fabricators must currently be accredited in accordance with one of the programs in Table 460-1, by fabrication category/categories of the products that they are producing.

Delete the first sentence of Article 460-2 Materials and substitute the following:

Provide the materials specified in the Contract Documents in accordance with Section 6, ASTM A6, and AASHTO/AWS D1.5, Bridge Welding Code.

Delete the first sentence of Subarticle 460-3.1 Shop Drawings and substitute the following:

Shop drawings are required for items of work not fully detailed in the plans which require additional drawings and coordination prior to constructing the items.

Delete the text of Subarticle 460-7.1.2 Submittals and substitute the following:

Provide submittals to the Engineer for review in accordance with the Contract Documents.

## **SECTION 461 – MULTIROTATIONAL BEARINGS**

Delete the first sentence of Subarticle 461-4 Shop Drawings and substitute the following:

Submit shop drawings in accordance with this Section and the Contract Documents.

## **SECTION 462 – POST-TENSIONING**

Delete paragraph 10 of Article 462-1 Description and substitute the following:

10. Submit all required documents in accordance with this Section and the Contract Documents to the Engineer for review and written approval.

Delete the text of Article 462-4 Qualifications and substitute the following:

Provide qualified personnel in accordance with the requirements of the Florida Department of Transportation for the type of work to be performed.

Delete the first sentence of paragraph 1 of Subarticle 462-5 Submittals and substitute the following:

Submit to the Engineer all necessary information, Plans, shop and working drawings, and manuals in accordance with this Section and the Contract Documents.

## **SECTION 471 – FIBER REINFORCED POLYMER FENDER SYSTEMS**

Delete the last sentence of the first paragraph of Subarticle 471-3 Product Acceptance.

Delete the first sentence of Subarticle 471-4.1 Shop Drawings and substitute the following:

Submit shop drawings in accordance with this Section and the Contract Documents.

## **SECTION 515 – METAL PEDESTRIAN/BICYCLE RAILINGS, GUIDERAILS, AND HANDRAILS**

Delete the first sentence of Article 515-4 Shop Drawings and substitute the following:

Submit shop drawings in accordance with this Section and the Contract Documents.

## **SECTION 519 – GROUTING**

Add the following new section:

### **SECTION 519 GROUTING**

#### **519-1 Description.**

Furnish and place Class NS concrete grout through an injection process or by pour, as designated on the plans, in conformity with the lines, grades, dimensions and notes shown on the plans.

#### **519-2 Materials.**

Meet the following requirements:

Concrete ..... Section 347

#### **519-3 Construction Methods.**

**519-3.1 General Requirements:** No grout will be placed when the atmospheric temperature is below 40° F or when the temperature of the grout is below 45° F or above 90° F. Prevent water and moisture from entering the area until the grout has thoroughly cured. Do not damage walls, footers, gabions, gabion mats, sandbags, riprap, or filter fabric.

**519-3.2 Surface Preparation:** Prior to grouting, flush the area with water to remove any loose debris. Pumps shall be capable of delivering one to five gallons per minute at 75 pounds per square inch maximum. Surplus water shall be removed with compressed air.

**519-3.3 Injection Grouting:** Insert the injection tube a minimum of six (6) inches. Begin grouting at a low pressure and gradually increase to at least 50psi. Remove the injection tube slowly to allow grout to seep into all voids. Continue this process along the entire length of the grout line or face of the structure. Maximum distance for grout injection points along the grout line will not exceed eight (8) inches.

**519-3.4 Poured Grout:** Place the grout over the area to be grouted and tamp and spade to prevent honeycombing. The top surface shall be floated smooth.

#### **519-4 Method of Measurement:**

The quantities to be paid for will be the plan quantity for the following items meeting the requirements of this Section, completed and accepted:

- (1) The volume, in cubic feet, of Injection Grouting.
- (2) The area, in square yards, of Poured Grout.

#### **519-5 Basis of Payment:**

Price and payment will constitute full compensation for all work, including all materials, equipment, labor, and incidentals necessary to complete the work.

Payment will be made under:

- Item No. 519-1 – Injection Grouting - per cubic foot.
- Item No. 519-2 – Poured Grout - per square yard.

### **SECTION 522 – CONCRETE SIDEWALKS AND DRIVEWAYS**

Add the following to Subarticle 522-2 Materials:

**Fiber Reinforcement:** All concrete for sidewalks and driveways shall include FORTA MIGHTY-MONO brand homopolymer polypropylene monofilament fibrous reinforcement or approved equal. Installation of the fiber reinforcement shall be in accordance with the manufacturers recommendations.

### **SECTION 523 – PATTERNED PAVEMENT**

Delete Article 523-2 Materials and substitute the following:

#### **523-2 Materials:**

Use only patterned pavement products approved for use in vehicular and non-vehicular areas, as appropriate.

Prior to installing, submit pattern and color samples to the Engineer for confirmation that the product meets the pattern and color specified in the plans. Do not begin installation until acceptance by the engineer.

### **SECTION 527 – DETECTABLE WARNINGS**

Delete the third paragraph of Article 527-2 Materials and substitute the following:

Use detectable warnings meeting the requirements if Section 974. Methods used to form detectable warnings in wet concrete will not be permitted.

### **SECTION 530 – REVETMENT SYSTEMS**

Delete the second sentence of the third paragraph of Subarticle 530-1.2 Articulating Concrete Block (ACB) Revetment Systems.

Delete Subarticle 530-1.3 Gabions.

Delete the last two sentences of the last paragraph of Subarticle 530-2.1.2 Prepackaged Sand-Cement Bags.

Delete Subarticle 530-2.3 Gabions.

Delete Subarticle 530-3.6 Gabions.

Delete Subarticle 530-4.4 Gabions.

Delete Subarticle 530-5.6 Gabions.

Delete Item No. 530-5 from Subarticle 530-5.7 Payment Items.

### **SECTION 531 – GABIONS, GABION MATS, AND MSE GABION WALLS**

Add the following new section:

## SECTION 531

### GABIONS, GABION MATS, AND MSE GABION WALLS

#### **531-1 Description.**

**531-1.1 General:** Furnish, assemble, fill, and tie wire mesh baskets to form gabions, gabion mats, and MSE gabion walls in conformity with the lines, grades, dimensions and notes shown on the plans.

#### **531-1.2 Definitions.**

##### **Connecting Wire.**

Internal wire used to prevent gabion baskets and gabion mats from bulging.

##### **Diaphragm.**

Internal wire mesh partition that divides a gabion basket or gabion mat into cells.

##### **Gabion and Gabion Mat.**

Double-twisted wire mesh container of variable sizes, uniformly partitioned into internal cells by diaphragms, interconnected to other similar units, and filled with stones to form flexible, permeable, monolithic structures such as retaining walls, channel linings, and weirs.

##### **Lacing Wire.**

Wire used to assemble and join gabion basket and gabion mat units.

##### **Mechanical Fastener.**

ASTM approved overlapping stainless steel "C" shaped fastener used to assemble and join gabion basket and gabion mat units.

##### **MSE Gabion Wall.**

Rock-faced mechanically stabilized earth wall assembled from a continuous piece of double-twisted wire mesh to form a box-shaped gabion basket and a reinforcement panel.

##### **Reinforcement Panel.**

Double-twisted wire mesh panel extending behind a gabion basket upon which compacted earth fill is placed.

##### **Selvedge Wire.**

Perimeter and Edge Wire to which the wire mesh is securely tied to withstand sudden or gradual stresses from any direction. Perimeter Wire runs perpendicular to the twist, and Edge Wire runs parallel to the twist.

#### **531-2 Materials.**

##### **531-2.1 Baskets:**

**531-2.1.1 Wire Mesh:** All wire mesh for gabion baskets, gabion mats, and MSE gabion walls shall be manufactured by Maccaferri Gabions, Inc., Terra Aqua Gabions, Inc., or approved equal, and shall be manufactured from hexagonal double-twisted PVC or polymer coated steel wire in accordance with the requirements of ASTM A975. The mesh type shall be hexagonal 8x10 with a nominal mesh opening size of 3.25" for gabion baskets and MSE gabion walls, and hexagonal 6x8 with a nominal mesh opening size of 2.50" for gabion mats. The mesh shall have the ability to resist pulling apart at the twists or connections forming the mesh when a single wire in a mesh section is cut.

**531-2.1.2 Wire:** Wire used in the fabrication of gabion baskets, gabion mats, and MSE gabion walls shall comply with the requirements of ASTM A975 galvanized and PVC or polymer coated steel wire, with diameters in accordance with the following table.

Application	Internal Diameter	External Diameter
Mesh Wire	0.106 inches	0.146 inches
Selvedge Wire	0.134 inches	0.174 inches
Lacing Wire	0.087 inches	0.127 inches
Connecting Wire	0.087 inches	0.127 inches
Preformed Stiffener	0.134 inches	0.174 inches

**531-2.1.3 Mechanical Fasteners:** Mechanical fasteners may be used in lieu of or to complement lacing wire for basket assembly and installation. Spacing of the fasteners during all phases of assembly and installation shall be based on 1,200 lbs/ft pull apart resistance for gabions and 700 lbs/ft pull apart resistance for gabion mats when tested in accordance with ASTM A975, and a nominal spacing of 4

inches and not to exceed 6 inches for gabions, and 6 inches and not to exceed 8 inches for gabion mats. Stainless steel wire used in the manufacture of the fasteners shall have a diameter of 0.120 inches and shall conform to ASTM A975-97, Section 6.3, with a tensile strength of 222,000 to 253,000 psi.

Mechanical fasteners shall be installed using a pneumatic power tool with an air pressure of 105 psi measured at the tool by a gauge placed on the air supply line. Non-pneumatic manual tools shall not be used to apply mechanical fasteners. A properly installed mechanical fastener shall have a nominal overlap of one inch after closure.

**531-2.1.4 Tolerances:** Tolerances on nominal wire diameters shall be 0.004 inches in accordance with ASTM A641. Tolerances on zinc coating shall be in accordance with ASTM A641/A641M-03, Class III soft temper coating. Dimensional tolerances for heights, lengths, and widths shall be in accordance with ASTM A975.

**531-2.1.5 Fabrication:**

**531-2.1.5.1 Gabion Baskets:** Gabion baskets shall be manufactured and shipped with all components mechanically connected at the production factory. The baskets shall be of single unit construction; i.e., the front, base, back, and lid shall be a single unit, or one edge of these members shall be connected to the base section of the basket in such a manner that strength and flexibility are in accordance with ASTM A975. Ends and diaphragms shall be factory connected to the base. All perimeter edges of the mesh forming the basket and top, or lid, shall be selvedged with wire having a larger diameter.

Where the length of the basket exceeds 1.5 times its horizontal width, it shall be equally divided by diaphragms made of the same type mesh as the body into cells in which the length does not exceed the horizontal width. The diaphragms shall be secured in position to the base so that no additional lacing is necessary at the jobsite.

**531-2.1.5.1 Gabion Mats:** Gabion mats shall be manufactured and shipped with all components mechanically connected at the production factory with the exception of the lid. The ends and diaphragm(s) shall be formed in conjunction with the base. The lid shall be a separate piece made of the same type mesh as the basket. All perimeter edges of the mesh forming the basket and top, or lid, shall be selvedged with wire having a larger diameter. The diaphragms shall be secured in position to the base so that no additional lacing is necessary at the jobsite.

**531-2.1.6 Standard Dimensions:**

**531-2.1.6.1 Gabion Baskets:**

Nominal Width = 3 feet, 4.5 feet, 6 feet, or 7.5 feet

Nominal Height = 1 foot, 1.5 feet, 2 feet, or 3 feet

Nominal Length = 3 feet, or field determined

**531-2.1.6.2 Gabion Mats:**

Nominal Width = 6 feet

Nominal Height = 6 inches, 9 inches, or 12 inches

Nominal Length = 6 feet or 12 feet

**531-2.2 Stone Fill:**

**531-2.2.1 General:** Stone fill shall consist of broken stone or broken concrete of a quality and durability sufficient to ensure permanency in the structure and climate in which it is to be used. Individual stones shall be free of open or incipient cracks, soft seams, sharp edges or other structural defects that can promote deterioration from natural causes, cause damage to the steel wire or coating, or which might reduce the stones to sizes that could not be retained in the baskets. Stone fill shall be uniform in material type, color and appearance throughout the project. Stone material shall be subject to approval by the Engineer.

**531-2.2.2 Approval of Source of Supply:** The sources from which the Contractor proposes to obtain the material shall be selected well in advance of the time that the material will be required in the work. Unless otherwise specified, samples of stone fill material and copies of test reports on advance samples taken and submitted by the producer shall be submitted to the Engineer at least 30 days prior to the time placement of the stone is expected to begin. The samples and test reports will be used to determine the acceptability of the stone. In the event test reports are not available, the material shall be

subject to such tests by the Engineer by means of samples and after delivery as necessary to determine acceptability. The Contractor shall furnish and deliver to the Engineer at no cost the required material necessary to take test samples.

### **531-2.2.3 Specific Requirements:**

**Gradation:** Stone fill for gabion baskets shall be a well-graded mixture with sizes ranging between 4 and 8 inches in diameter, based on U.S. Standard square-mesh sieves. No stone shall have a minimum dimension of less than 3 1/2 inches. Stone fill for gabion mats shall be a well-graded mixture with sizes ranging between 3 and 6 inches in diameter, based on U.S. Standard square-mesh sieves, with no stone having a minimum dimension of less than 2 1/2 inches.

**Bulk Specific Gravity:** ..... Minimum 2.40

**Absorption:** ..... Maximum 5%

**Los Angeles Abrasion:** ..... Maximum loss of 45% [FM 1-T096]

**Soundness (Sodium Sulfate):** ..... Maximum loss of 12% [FM 1-T104]

**Flat & Elongated Pieces:** Materials with least dimension less than one third of greatest dimension shall not exceed 10% by weight.

**Dirt and Fines:** The inclusion of objectionable quantities of dirt, sand, clay, and rock fines will not be permitted. Materials less than 1/2 inch in maximum dimension shall not exceed 5% by weight.

**531-2.3 Filter Fabric:** Type D-2 filter fabric shall be in compliance with Section 985.

**531-2.4 Select Backfill:** Granular material meeting the AASHTO classification for A-2-4, A-3, or A-2-6 with a Plasticity Index not exceeding 20 percent. Contractor is responsible for providing geotechnical test results confirming the select backfill meets the above criteria.

## **531-3 Construction Requirements.**

**531-3.1 General:** During the initial installation of gabion baskets, gabion mats, and MSE gabion walls, the Contractor shall have on-site a representative of the manufacturer of the gabion baskets who is skilled in the assembly and installation of gabions to assist the Contractor for a minimum of two (2) days.

**531-3.2 Assembling:** The basket units shall be opened and unfolded one by one on a flat, hard surface, and any shipping folds shall be removed. The sides, ends, and diaphragms shall be lifted into a vertical position to form an open box shape. The Contractor shall ensure that all panels are in the correct position and that the tops of all sides are aligned. The back and front panels shall be connected to the end panels and center diaphragms. The four corners of the unit shall be connected first, followed by connecting the internal diaphragms to the outside walls. All connections shall be accomplished using lacing wire or mechanical fasteners.

The procedure for using lacing wire shall consist of cutting a length of wire approximately 1.5 times the length of the edge to be laced. The mesh panels shall be pulled tightly together during the tying operation. For vertical joints, starting at the bottom of the panel, lacing wire shall be twisted and wrapped two times around the bottom edge and then lacing shall proceed with alternating double and single loops through every mesh opening. Each loop shall be pulled tight. The end of the lacing wire shall be secured to the wire mesh by looping and/or twisting the wire onto the mesh to prevent loosening.

If mechanical fasteners are used, they shall be applied at intervals not to exceed 6 inches, with no less than three fasteners per foot on any given vertical or horizontal seam. When closed, the free ends of the fastener shall overlap a minimum of 1 inch.

**531-3.3 Foundation Preparation:** After excavation or stripping to the extent indicated on the Plans, remaining loose or otherwise unsuitable materials shall be removed, and all depressions shall be carefully backfilled using suitable materials and shall be compacted as specified in Section 120-9.2. Any buried debris protruding from the foundation that will impede the proper installation and final appearance of the gabion baskets or gabion mats shall also be removed and the voids carefully backfilled and compacted. Filter fabric shall be placed on the prepared foundation immediately prior to placing basket units.

**531-3.4 Filter Fabric Placement:** Filter fabric shall be placed uniformly on the prepared foundation to completely cover all surfaces where gabion baskets will be in contact with soil. Edges of the filter fabric shall overlap a minimum of 24 inches, and folds and excessive wrinkles shall be eliminated. Sufficient filter fabric shall be provided for extending the fabric along the back and side surfaces of baskets where

backfill is to be placed and for covering the first 24 inches of compacted backfill under the reinforcement panels on MSE gabion walls.

**531-3.5 Installation:** The initial layer of basket units shall be placed on the filter fabric on the prepared foundation to the lines and grades shown on the Plans. All adjoining empty baskets must be securely joined together along the vertical and top edges of their contact surfaces using the same connecting procedure described in Section 531-3.2. After the adjoining empty basket units are set to line and grade and common sides with adjacent units are thoroughly fastened together, they may be placed in tension and stretched to remove any kinks from the mesh and to obtain a uniform alignment. The stretching of empty basket units shall be accomplished in such a manner as to prevent any possible unraveling.

On MSE gabion walls, 24 inches of filter fabric shall be folded onto the top of the compacted backfill behind the gabion baskets. The reinforcement panels attached to the gabion baskets shall then be placed on the filter fabric and compacted backfill. It is not necessary to attach the reinforcement panels to each other with lacing wire or fasteners except at one point approximately three feet behind the back panel for alignment purposes.

Each upper layer of gabion baskets shall be securely joined together when empty along the vertical and top edges of their contact surfaces and shall be connected to the top of the lower layer of filled baskets along the front and back edges of the contact surface using the same connecting procedures described in Section 531-3.2.

**531-3.6 Filling:** Stone filling operations shall carefully proceed, with placement by hand or machine so as not to damage the wire coating, to assure a minimum of voids between the stones, to give a neat, smooth and compact appearance, and to maintain alignment throughout the filling process. Cells shall be filled in stages consisting of courses of a maximum thickness of 12 inches so that local deformation or bulging may be avoided. At no time shall any cell be filled to a depth exceeding 12 inches above the depth of an adjoining cell. Baskets shall be uniformly overfilled by 1 to 2 inches to allow for settlement of the stone fill.

All 2-foot and 3-foot high baskets shall have cross ties (connecting wires or preformed stiffeners) installed after the placement of each 12-inch deep layer of stone fill. Connecting wires are to be fabricated using lacing wire to connect the exposed face of each cell to the opposite side or to an adjacent cell. An exposed face is any side of a basket unit that will be exposed or unsupported after the installation is completed. Connecting wires shall be looped around three mesh openings at each basket face. Each connecting wire terminal shall be double looped around the mesh and securely tied to itself to prevent its loosening. If used, preformed stiffeners shall be installed at 45-degree angles from the exposed face to the adjacent side, extending an equal distance along each side to be braced. Refer to details on the plans for connecting wires and preformed stiffener options.

**531-3.7 Select Backfill:** Select backfill shall be placed in accordance with Section 125-8 and compacted to a density of not less than 95% of the maximum density as determined by FMI-T099, Method C. The filter fabric shall be pulled tightly against the gabion baskets. Filter fabric on adjacent baskets shall overlap a minimum of 24 inches. Simultaneously with filling the baskets, backfill material shall be placed and compacted behind the gabion baskets to the same level as the filled baskets.

**531-3.8 Closing:** After each gabion basket has been filled as described in Section 531-3.6, the lid shall be stretched tight over the stone fill using appropriate closing tools, until the lid meets the perimeter edges of the front and end panels. The lid shall then be tightly fastened along all edges, ends, and internal cell diaphragms with lacing wire or with mechanical fasteners. Lids covering a single cell of gabion mat shall be fastened with lacing wire. Lids made from rolls of mesh material covering multiple cells of gabion mat may be closed using mechanical fasteners.

Mechanical fasteners shall not be used when tying across more than three selvedge wires. The spacing between mechanical fasteners shall not exceed four inches. Lacing wire must be used when tying across four or more selvedge wires. When lacing wire is used, it shall be continuously stitched and looped tightly around every other mesh opening alternating single and double loops. Special care shall be taken to see that all projections or wire ends are turned into the baskets to avoid protrusions.

**531-3.9 Cutting Baskets:** Where a complete basket unit cannot be installed because of space limitations or where modification of a basket unit is shown on the plans or directed by the Engineer, the

unit shall be cut, folded, or overlapped and securely connected. The mesh must be cleanly cut, and the surplus mesh must be folded back or overlapped so that it can be securely fastened together with lacing wire or mechanical fasteners. All reshaped baskets shall be assembled, installed, filled, and closed as specified above.

**531-3.10 Quality Control:** Horizontal deflection (bulge) shall not exceed 6% of basket height. Baskets that exceed this maximum shall be removed and replaced at the Contractor's expense.

#### **531-4 Method of Measurement.**

The quantities to be paid for under this Section shall be the volume in cubic yards of the baskets in their final position, completed and accepted. No deduction will be made for any areas occupied by pipes, manholes, inlets, or other drainage or public utility structures.

#### **531-5 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including all excavation except the volume included in the items for grading work on the project and except for such work as is specifically stipulated to be paid for separately.

Payment shall be made under:

- Item No. 531-76- Gabion Mat - per cubic yard.
- Item No. 531-77- Gabion Basket - per cubic yard.
- Item No. 531-78- MSE Gabion Wall – per cubic yard.

### **SECTION 534 – NOISE AND PERIMETER WALLS**

Delete the last sentence of the first paragraph of Subarticle 534-3.1.

Delete the first sentence of Article 534-4 Shop Drawing Submittal and substitute the following:

Submit shop drawings for precast elements, when required, showing a plan and elevation with the following project specific information provided:

### **SECTION 538 – RESETTING GUARDRAIL**

Delete the last sentence of the first paragraph of Subarticle 538-2.2 Unforeseen Non-reusable Components and substitute the following:

Unforeseen non-reusable components will be paid for by Change Order.

### **SECTION 544 CRASH CUSHIONS**

Delete Article 544-2 Approved Products List (APL) and substitute the following.

#### **544-2 Approved Products List (APL).**

Use crash cushions listed on the APL.

### **SECTION 546 – RUMBLE STRIPS**

Delete Subarticle 546-2.1.2 Asphalt and substitute the following:

**546-2.1.2 Asphalt:** Any plant-mixed hot bituminous asphalt mixture meeting the requirements of a job-mix formula issued by the Florida Department of Transportation, except open-graded friction course.

### **SECTION 548 – RETAINING WALL SYSTEMS**

Delete the last sentence of the second paragraph of Article 548-1 Description.

Delete the first sentence of Subarticle 548-2.6.2 Compacted Select Backfill and substitute the following:

Meet the requirements of Section 120 except as noted within this Section.

Delete Article 548-3 Approved Products List (APL) and substitute the following:

**548-3 Approved Products List (APL).**

All proprietary retaining wall systems shall be listed on the APL.

Delete the first sentence of Article 548-4 Shop Drawings and substitute the following:

Provide shop drawings and calculations in accordance with the Contract Documents.

Delete the fourth sentence of Article 548-5 Concrete Component Construction and substitute the following:

Perform compressive strength testing in a qualified laboratory.

Delete the second paragraph of Subarticle 548-8.3 Foundation Preparation and substitute the following:

In addition to the compaction requirements of Section 125, compact the graded area with an appropriate vibratory roller weighing a minimum of 8 tons for at least five passes or as directed by the Engineer. Remove and replace any soft or loose foundation subsoils which are incapable of sustaining the required compaction to the Engineer's satisfaction.

Delete the third sentence of the first paragraph of Subarticle 548-9.7.4 Gradation and substitute the following:

Resolution testing will be performed by an AASHTO accredited laboratory.

Delete the third sentence of the first paragraph of Subarticle 548-9.7.5 Liquid Limit and Plasticity Index (LL&PI) and substitute the following:

Resolution testing will be performed by an AASHTO accredited laboratory.

Delete the third sentence of the first paragraph of Subarticle 548-9.7.6 Corrosiveness and substitute the following:

Resolution testing will be performed by an AASHTO accredited laboratory.

Delete the last sentence of the first paragraph of Subarticle 548-9.7.7 Organic Content and substitute the following:

Resolution testing will be performed by an AASHTO accredited laboratory.

Delete the second sentence of Subarticle 548-9.7.8 Friction Angle and substitute the following:

The verification testing will be performed by a consultant qualified to perform Geotechnical Specialty Lab Testing (Type of Work 9.5), per Rule 14-75 of the Florida Administrative Code.

## **SECTION 550 – FENCING**

Expand Subarticle 550-3.5 Optional Use of Materials by the following:

When Type B Fence with Type IV vinyl coated fabric is indicated on the plans, all posts, rails, top rails, truss rods, tension wires, tie wires, stretcher bars, gates, hardware, and miscellaneous fittings will be vinyl coated or painted to match the color of the fabric.

Expand Subarticle 550-4.6 Placing Fabric by adding the following prior to the first sentence:

When Type B fence is to be installed with top rails, the top rails shall be installed through the line post loop caps after the posts have been permanently positioned and after the concrete foundations have attained adequate strength, connecting sections with sleeves to form a continuous rail between terminal posts.

## **SECTION 555 – DIRECTIONAL BORE**

Delete the last sentence of Subarticle 555-4.2 Boring Failure and substitute the following:

If, during construction, damage is observed to any facility or improvement, cease all work until resolution to minimize further damage and a plan of action for restoration is obtained and approved by the Engineer.

## **SECTION 556 – JACK AND BORE**

Delete the first sentence of the last paragraph of Subarticle 556-2.1 Steel Pipe Casing and Welds and substitute the following:

Use steel pipe casings and welds meeting or exceeding the thicknesses required to achieve the service life requirements noted in Chapter 6 of the Florida Department of Transportation's Drainage Manual.

Delete item 6 of Subarticle 556-6.1 Boring Path Report and substitute the following:

6. As-built placement plans showing roadway plan and profile, cross section, boring location and subsurface conditions as defined in Bore Path Plans below. Reference the shown plan elevations to an established bench mark.

## **SECTION 560 – COATING NEW STRUCTURAL STEEL**

Delete Subarticle 560-5.1 Shop Preparation and Application and substitute the following:

**560-5.1 Shop Preparation and Application:** Prior to applying coatings, submit a current Corporate Quality Control Plan approved by the American Institute of Steel Construction (AISC) under the Sophisticated Paint Endorsement Program or SSPC under the SSPC-QP3 certification or NACE International Institute Contractor Accreditation Program (NIICAP) AS-1S certification program to the Engineer for approval.

## **SECTION 570 – PERFORMANCE TURF**

Expand Subarticle 570-3.1 General by the following:

After firming all areas designated to be planted, prepare a finish soil layer of uniform thickness of not less than 3 inches over areas of the project that are to be seeded or sodded by mixing existing soil with organic soil or compost meeting the requirements of Section 987 as necessary to achieve the pH and organic matter levels listed in Section 987. Based on site conditions, it may be necessary to exceed this minimum requirement to achieve the performance-based criteria described in 570-4. Any irregularities in the surface shall be corrected to prevent the formation of depressions or water pockets. The finish soil layer shall not be placed while in a muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or turf installation. During periods of higher than optimal temperature for the species to be installed, and after all unevenness in the soil surface has been corrected, the soil shall be lightly moistened immediately prior to installation. Allow surface moisture to dry before turf installation to prevent a muddy soil condition. Limit preparation to those areas that can be seeded or sodded within 72 hours of preparation.

Expand Subarticle 570-3.3 Sod by the following:

Peg sod at locations where the sod may slide. Drive pegs through sod into firm earth, flush with the ground surface, at intervals approved by the Engineer. When pegging of sod is specified in the plans, all work and materials will be included in the cost of the sod. When pegging of sod is not specified in the plans, or if pegging is required beyond the limits specified in the plans, payment for the work and materials will be made as a change in the Work.

Delete the last sentence of the fourth paragraph of Subarticle 570-3.3 Sod and substitute the following:

If compensation is provided, payment will be made as a change in the Work.

Expand Article 570-4 Turf Establishment by the following:

Take responsibility for litter removal and mowing of turf (including undisturbed areas within the project limits) until final acceptance. Begin mowing new turf after the establishment of a healthy root system. Mow grassed areas when the height of the turf exceeds 6 inches.

Delete Article 570-6 Statewide Disputes Review Board.

Delete Article 570-7 Failure to Perform.

## **SECTION 603 – GENERAL REQUIREMENTS FOR TRAFFIC CONTROL SIGNALS AND DEVICES**

Delete the first paragraph of Subarticle 603-5 Submittal Data Requirements and substitute the following:

Prior to the installation of equipment and within 30 days after the preconstruction conference, submit a listing of all traffic control signals, devices, and hardware with Florida Department of Transportation APL approval numbers to the Engineer for approval. Provide a separate form for each cabinet location. For non-structural equipment or materials that do not have a Florida Department of Transportation APL approval number, submit one copy of the manufacturer's descriptive literature and technical data fully describing the equipment to the Engineer for approval.

## **SECTION 608 – MANUFACTURERS' WARRANTIES FOR TRAFFIC CONTROL SIGNALS AND DEVICES**

Delete Subarticle 608-2.1 General and substitute the following:

**608-2.1 General:** Secure all warranties provided by the equipment manufacturer for the specific equipment included in the Contract. Ensure that all warranties are fully transferable from the Contractor to the owner of the equipment within the project limits. Ensure that warranties cover defects for at least the duration specified in the Contract Documents from the date of final acceptance. Transfer warranties upon final acceptance. Document all warranties and warranty transfers and provide a copy to the Engineer.

The Contractor's responsibility for warranty repairs, warranty replacement, troubleshooting, or other costs associated with repair or replacement of traffic control signals and devices within the contract's project limits will terminate 90 days after final acceptance.

## **SECTION 611 – ACCEPTANCE PROCEDURES FOR TRAFFIC CONTROL SIGNALS AND DEVICES**

Delete Subarticle 611-2.1 Partial Acceptance.

Delete Subarticle 611-2.2 Final Acceptance and substitute the following:

**611-2.2 Final Acceptance:** The Engineer will make inspection for final acceptance of traffic control signal and device installations as part of all work under the Contract in accordance with 5-11, only after satisfactory completion of all field tests of completed installations and on the basis of a comprehensive final field inspection of all equipment installations. The Engineer will make the final inspection with a Contractor's representative and, when applicable, a representative of the agency designated to accept maintenance responsibility. Transfer warranties and guarantees on equipment to the Department in accordance with Section 608.

Delete Subarticle 611.2.3 As-Built Documentation and substitute the following:

**611-2.3 As-Built Documentation:** As a condition precedent to acceptance under 611-2.2, furnish as-built drawings of all installations in accordance with the following requirements:

Delete the first paragraph of Subarticle 611-2.3.1 Submittal Requirements and substitute the following:

Submit as-built plans for review by the Engineer. As-built plans must be PDF files formatted to be printed in the same scale and on the same size sheets as the Contract Plans. Signing and pavement marking plan sheets may be used instead of signalization plan sheets, if a substantial number of changes from the original plans must be recorded. If, in the opinion of the Engineer, the changes cannot be clearly

delineated on full size reproductions of the original plan sheets, clearly delineate all changes on detail sheets, enlarged 200% from the reproductions.

Delete Subarticle 611-2.4 Installation Inspection Requirements.

Delete the first paragraph of Subarticle 611-7.3 Equipment Failing to Pass Acceptance Tests and substitute the following:

When any unit of equipment fails to pass the acceptance tests, correct the deficiencies (by repair or replacement), at no expense (including all freight costs) to the Department, to attain compliance. If the Contract Time has expired, the Department will charge and continue to assess liquidated damages until final acceptance of the equipment. Upon compliance with such correction requirements, the Engineer will perform tests on the equipment as specified above and will determine their eligibility for payment.

## **SECTION 633 – COMMUNICATION CABLE**

Delete FDOT from the second paragraph of Subarticle 633-2.1.1.8 Outer Jacket.

Delete FDOT from the second paragraph of Subarticle 633-3.1.1 Cable Identification.

## **SECTION 635 – PULL, SPLICING, AND JUNCTION BOXES**

Delete the first paragraph of Subarticle 635-2.2.1 General and substitute the following:

Manufacturers of concrete pull and splice boxes and covers shall meet the requirements of this Section and be listed on the Department's Production Facility Listing.

Delete FDOT from all applications in Item 1 of Subarticle 635-2.2.2 Marking.

## **SECTION 641 – PRESTRESSED CONCRETE POLES**

Delete the last sentence of the second paragraph of Article 641-1 Description.

Delete the last paragraph of Article 641-1 Description and substitute the following:

Ensure that the shipment of the products to the job site meets the requirements of 450-16.3.

Delete the last sentence of Article 641-3 Concrete Pole Construction and substitute the following:

Plant certification is not required for plants that manufacture prestressed concrete poles.

## **SECTION 646 – ALUMINUM POLES, PEDESTALS, AND POSTS**

Delete the second and third paragraphs of Article 646-4 Remedial Work.

Delete Article 646-5 Statewide Disputes Review Board.

Delete the fourth sentence of the second paragraph of Subarticle 646-6.2 Foundations.

## **SECTION 649 – GALVANIZED STEEL POLES, MAST ARMS AND MONOTUBE ASSEMBLIES**

Delete the last sentence of the second paragraph of Article 649-2.2 Pole Assembly.

Delete the second and third paragraphs of Article 649-5 Remedial Work.

Delete Article 649-6 Statewide Disputes Review Board.

## **SECTION 677 – EQUIPMENT SHELTER**

Delete the fourth sentence of the second paragraph of Subarticle 677-3.1 General.

## **SECTION 695 – TRAFFIC MONITORING SITE EQUIPMENT AND MATERIALS**

Delete the second sentence of Subarticle 695-3.3.1 General and substitute the following:

Use vehicle detection systems that meet the requirements of Section 997.

## **SECTION 700 – HIGHWAY SIGNING**

Delete the second sentence of the first paragraph of Subarticle 700-2.4 Overhead Signs.

Delete the fourth sentence of Subarticle 700-3.1.1. Foundation.

## **SECTION 710 – PAINTED PAVEMENT MARKINGS**

Delete Subarticle 710-9.2 Contractor's Certification of Quantities.

## **SECTION 711 – THERMOPLASTIC PAVEMENT MARKINGS**

Expand Subarticle 711-10 Basis of Payment by the following:

Prices and payments shall also include full compensation for the application of painted pavement markings to the final pavement surface prior to applying the thermoplastic material.

## **SECTION 715 – HIGHWAY LIGHTING SYSTEM**

Delete the second and third paragraphs of Article 715-3 Remedial Work.

Delete Article 715-4 Statewide Disputes Review Board.

Delete the text of Article 715-5 Shop Drawings and Working Drawings and substitute the following:

Submit shop drawings and working drawings with descriptive specifications and engineering data for the service main, control panel enclosure, control panel main disconnect, lighting contactor, electrical panel, transformer, in-line fuse holders, surge protective devices, non-standard light poles (including brackets), luminaires, ballast, photo-electric cell, conduit and cable or any other item requested by the Engineer.

Delete the last sentence of Subarticle 715-9.1 Concrete Foundations.

## **DIVISION III - MATERIALS**

Division III of the Standard Specifications is not amended or supplemented by these Supplemental Specifications. All references within Division III to the sections, articles and subarticles of Division I and Division II of the Standard Specifications and to the Florida Department of Transportation, its offices, districts, and personnel are not amended. All references within Division III to Department are to the Florida Department of Transportation.