

ORIGINATION FORM

Date: **10/09/2014**

Originator: **Juan Castellanos**

Contact Information: **Juan Castellanos 850-414-4276**

Specification Title: **Structures Foundations**

Specification Section, Article, or Subarticle Number: **455-10**

Why does the existing language need to be changed? **To remove a requirement from the Pile Installation Plan (PIP), that is creating unnecessary rejections and re-submittals.**

Summary of the changes: **Delete the requirement of including the pile schedule from the PIP. Request a 1 week advance notice of any pile driving activity.**

Are these changes applicable to all Department jobs? **Yes**

If not, what are the restrictions?

Will these changes result in an increase or decrease in project costs? **No**

If yes, what is the estimated change in costs?

With who have you discussed these changes? **Construction, District Geotechnical Engineers**

What other offices will be impacted by these changes? **None**

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? **No**

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? **No**

Contact the State Specifications Office for assistance in completing this form.

Daniel Scheer 850-414-4130 daniel.scheer@dot.state.fl.us

Frances Thomas 850-414-4101 frances.thomas@dot.state.fl.us

Debbie Toole 850-414-4114 deborah.toole@dot.state.fl.us

Andy Harper 850-414-4127 clifton.harper@dot.state.fl.us

Ray Haverty 850-414-4129 ray.haverty@dot.state.fl.us



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

MEMORANDUM

DATE: October 20, 2014

TO: Specification Review Distribution List

FROM: Daniel Scheer, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **SP4551000DB Structures Foundations (Design Build).**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Juan Castellanos of the State Construction Office to remove a requirement from the Pile Installation Plan (PIP) that is creating unnecessary rejections and re-submittals.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <http://www2.dot.state.fl.us/SpecificationsEstimates/Development/IndustryReview.aspx> . Comments received after **November 17, 2014**, may not be considered. Your input is encouraged.

DS/ot
Attachment

Use when Geotechnical Services are required for the project.

STRUCTURES FOUNDATIONS (DESIGN BUILD).

(REV 10-9-14)

ARTICLE 455-10 is deleted and the following substituted:

455-10 Pile Installation Plan (PIP).

455-10.1 General: At the preconstruction conference or at least 15 days prior to driving the first pile, submit a Pile Installation Plan for review by the Engineer. The PIP shall be used to govern all pile installation activities. In the event that deviations from the PIP are observed, the Engineer may perform Independent Verification Testing/Review of the Contractor's equipment, procedures, personnel and PIP at any time during production pile driving. If, as determined by the Engineer, pile driving equipment, procedures and/or personnel for the PIP is deemed inadequate to consistently provide undamaged driven piling meeting the contract requirements, the Contractor's PIP acceptance may be withdrawn pending corrective actions. Production driving shall then cease and not restart until corrective actions have been taken and the PIP re-accepted.

Ensure the Pile Driving Installation Plan information includes the following:

1. List and size of proposed equipment including cranes, barges, driving equipment, jetting equipment, compressors, and preformed pile hole equipment on the Department's Pile Driving Installation Plan Form. Include manufacturer's data sheets on hammers.
2. Methods to determine hammer energy in the field for determination of pile capacity. Include in the submittal necessary charts and recent calibrations for any pressure measuring equipment.
3. Detailed drawings of any proposed followers.
4. Detailed drawings of templates.
5. Details of proposed load test equipment and procedures, including recent calibrations of jacks and required load cells.
6. Sequence of driving of piles for each different configuration of pile layout.
- ~~7. Proposed schedule for test pile program and production pile driving.~~
87. Details of proposed features and procedures for protection of existing structures.
98. Required shop drawings for piles, cofferdams, etc.
109. Methods and equipment proposed to prevent displacement of piles during placement and compaction of fill within 15 feet of the piles.
110. Methods to prevent deflection of battered piles due to their own weight and to maintain their as-driven position until casting of the pile cap is complete.
1211. Proposed pile splice locations and details of any proprietary splices anticipated to be used.
1312. Methods and equipment proposed to prevent damage to voided or cylinder piles due to interior water pressure.
1413. Name and experience record of pile driving superintendent or foreman in responsible charge of pile driving operations. Ensure the pile driving superintendent or foreman in responsible charge of the pile driving operations has the experience requirements of 105-8.13 installing driven piles of the size and depth shown in the Plans.

Use when Geotechnical Services are required for the project.

~~15~~14. The names of the CTQP qualified inspectors assigned to inspect the pile installation.

~~16~~15. The quality control processes to ensure the required capacity is achieved in all piles. Include in the PIP the steps and analyses that would be performed when driving conditions change (such as unanticipated tip elevations, hammer modifications, presence of temporary piles and structures, preforming, changes, etc.).

~~17~~16. The name and contact information for the single representative of the Contractor, independent of field operations personnel, to resolve to the Engineer's satisfaction conflicts in the driving procedures or interpretations of the driving criteria. This person shall be available within two hours notice, and shall have the authority to refer issues to higher levels (corporate, if needed).

~~18~~17. A letter from the GFDEOR certifying concurrence with the PIP.

Notify the Engineer of any test pile driving and production pile driving at least 1 week prior to beginning the installation operations of any pile.

455-10.2 Acceptance of the Pile Installation Plan: The Engineer will evaluate the PIP for conformance with the Contract Documents. Within five working days, excluding weekends and Department observed holidays, after receipt of the plan, the Engineer will notify the Contractor of any comments and additional information required and/or changes that may be necessary to satisfy the Contract Documents. Submit changes and respond to the Engineer's comments and allow at least two working days, excluding weekends and Department observed holidays, for the Engineer to review the revised PIP.

All equipment and procedures are subject to satisfactory field performance. Make any required changes that may result from unsatisfactory field performance. The Engineer will give final acceptance after the Contractor makes necessary modifications. Do not make any changes in the driving system after acceptance without a revised PIP with concurrence of the GFDEOR and acceptance by the Engineer. A hammer repaired on site or removed from the site and returned is considered to have its performance altered (efficiency increased or decreased), which is considered a change in the driving system. Perform a dynamic load test in accordance with 455-5.13 on the first pile driven with this hammer to confirm the driving criteria is still appropriate at no additional compensation.

Acceptance of the PIP by the Engineer does not relieve the Contractor of the responsibility to perform the work in accordance with the Contract Documents. The Engineer's acceptance is not a guarantee that the chosen methods and equipment are capable of obtaining the required results; this responsibility lies with the Contractor.