Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

May 8, 2015

DCE MEMORANDUM NO. 11-15
(FHWA Approved: 5/06/2015)

TO: **DISTRICT CONSTRUCTION ENGINEERS**

FROM: David A. Sadler, P.E., Director, Office of Construction

COPIES: Tom Byron, Bob Burleson, Nick Finch, Rafiq Darji

SUBJECT: **PILE INSTALLATION PLAN – TEST PILE PROGRAM AND PRODUCTION PILE SCHEDULE**

Subarticle 455-10.1 (Pile Installation Plan- General) of the Standard Specifications and the Design Build (DB) 455 Special Provision was revised to delete the proposed schedule for test pile program and production pile driving as a required item of the Pile Installation Plan. Instead, a sentence was added requiring the Contractor to notify the Engineer of any test pile and production pile driving with at least one week notice. This revision will be effective with the July 2015 lettings.

This memorandum serves as blanket approval to process a no-cost specification change to incorporate the July 2015 revision of Subarticle 455-10.1 into contracts let prior to July 2015. Attach a copy of this memorandum with a copy of either the July 2015 Subarticle 455-10.1 (for conventional projects) or the July 2015 SP 455-10.1 (for DB projects) to the Work Order or Supplemental Agreement.

This memorandum will expire on June 30, 2016. If you have any questions, please call Juan Castellanos at (850) 414-4276.

DAS/jc

SUBARTICLE 455-10.1 FROM THE STANDARD SPECIFICATIONS SECTION 455, JULY 2015, TO BE USED IN CONVENTIONAL PROJECTS:

455-10.1 General: Complete the Pile Driving Installation Plan form provided by the Engineer. Return the Pile Driving Installation Plan information to the Engineer at the preconstruction conference or no later than 30 days before driving the first pile. 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. 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. Details of proposed features and procedures for protection of existing structures.
8. Required shop drawings for piles, cofferdams, etc.
9. Methods and equipment proposed to prevent displacement of piles during placement and compaction of fill within 15 feet of the piles.
10. 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.
11. Proposed pile splice locations and details of any proprietary splices anticipated to be used.
12. Methods and equipment proposed to prevent damage to voided or cylinder piles due to interior water pressure.

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

SUBARTICLE 455-10.1 FROM THE SPECIAL PROVISION SP4550000DB, JULY 2015, TO BE USED IN DESIGN-BUILD PROJECTS:

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. Details of proposed features and procedures for protection of existing structures.
8. Required shop drawings for piles, cofferdams, etc.
9. Methods and equipment proposed to prevent displacement of piles during placement and compaction of fill within 15 feet of the piles.
10. 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.
11. Proposed pile splice locations and details of any proprietary splices anticipated to be used.
12. Methods and equipment proposed to prevent damage to voided or cylinder piles due to interior water pressure.
13. 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.
14. The names of the CTQP qualified inspectors assigned to inspect the pile installation.

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.).

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).

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.