

## Section 10.8

### AUGER CAST PILES

#### 10.8.1 Purpose

To establish a procedure for the approval of the Contractor's Auger Cast Pile Installation Plan, inspection and approval of mixing, pumping and demonstration of cement grout, and inspection and approval of piles installed in accordance with **Section 455, Structures Foundations, Standard Specifications** and any supplements thereto. This chapter also provides the procedure for the documentation of pile installation. This procedure applies to conventional projects; for Design Build projects refer to **Section 10.12**.

#### 10.8.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

#### 10.8.3 References

Section 455, Standard Specifications for Road and Bridge Construction and Supplements thereto.

#### 10.8.4 Definitions

**District Construction Engineer (DCE):** The authority for the entire construction activity in the District.

**Construction Engineering and Inspection (CEI):** In this procedure, it refers to the Consultant personnel performing CEI services or the Department's personnel group performing CEI services.

**Geotechnical Engineer:** In this procedure, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned to the project by the DGE, the Consultant Geotechnical Engineer working directly for the DGE, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and DGE.

**Resident Engineer (RE):** The Engineer supervising the Project Administrator and is responsible for the construction activity in the residency.

**Project Administrator (PA):** The employee responsible for the everyday construction activity at the project under the direction of the Resident Engineer/Senior Project Engineer.

**Demonstration Pile:** The pile which the Contractor is asked to construct to demonstrate the dependability of the equipment, techniques, and source material prior to the start of production pile installation to the satisfaction of the Engineer (**Section 455-39.1**).

### **10.8.5 Approval of Pile Installation System**

#### **(A) Resident Level Responsibilities**

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least 30 days prior to the construction of a demonstration pile a completed **Auger Cast Pile Installation Plan (ACPIP)**. Within one (1) working day, the RE (or PA) shall forward the ACPIP to the Geotechnical Engineer for review and recommendations. The RE (or PA) shall perform a concurrent separate review of the ACPIP and incorporate their own comments to the ones received from the Geotechnical Engineer. The ACPIP shall be evaluated and approved separately from other Quality Control Plans submitted by the Contractor. If the Contractor includes the ACPIP in the Quality Control Plan submittal, the PA shall detach the ACPIP from the Quality Control Plan submittal and notify the Contractor in writing of such action.

The RE (or PA), within one (1) working day of receipt of the Geotechnical Engineer's comments and/or recommendations shall notify the Contractor of acceptance/ rejection or request additional information and/or changes that may be necessary for pile construction in accordance with the contract documents. The letter of rejection shall contain the reason(s) for rejection of the ACPIP.

#### **(B) District Materials and Research Office (DMRO) Level Responsibilities**

The Geotechnical Engineer shall make comments and/or recommendations to the RE of the acceptance or rejection of the proposed pile installation equipment and techniques within five (5) working days of receiving the ACPIP.

## 10.8.6 Demonstration Pile Installation

### (A) Resident Level Responsibilities

Demonstration pile installation shall be documented by the inspectors on the ***Auger Cast-in-Place Pile Installation Record, Form Number 700-011-03***. As soon as the Contractor's schedule for installation of the demonstration pile is known, the PA shall notify the Geotechnical Engineer of the schedule so the Geotechnical Engineer may observe the installation of the demonstration pile and approve the suitability of equipment, techniques, and source of materials.

The comments section of ***Form Number 700-011-03*** shall describe any occurrences during the installation of the pile or any information the recorder feels may be beneficial to the Geotechnical Engineer or the PA.

During the demonstration pile installation, the inspector and the PA must verify the equipment and techniques described in the approved ACPIP were used to install the demonstration pile and sign the form in the appropriate place documenting this. The original is retained in the project files. A completed form is to be sent to the Geotechnical Engineer within 24 hours of completion for review and approval.

Upon receipt of the letter from the Geotechnical Engineer recommending approval of the Contractor's means and methods of installation, the RE shall approve the recommendation and send it to the Contractor within one (1) working day.

### (B) DMRO Level Responsibilities

Within two (2) working days of the receipt of the demonstration pile data, the Geotechnical Engineer shall review the demonstration pile data and give recommendations for the production pile installation. A letter, electronically signed, shall be sent to the RE with the recommendations. Refer to ***Guidance Documents 10-8-A, 10-8-B*** for ***Sample Letters***.

### 10.8.7 Production Pile Installation

Production pile installation shall be documented in the ***Auger Cast-in-Place Pile Installation Record, Form Number 700-011-03***. Inspectors monitoring and documenting auger cast piles installation, including demonstration and production piles, shall have taken and passed the Department's Computer Based Training (CBT) ***Auger Cast Pile Inspector's Qualification Course***, before the beginning of the pile installation. The course is available at the following webpage:

<http://wbt.dot.state.fl.us/ois/AugerCastPileCBT/index.shtm>

**Guidance Document 10-8-A**

**SAMPLE LETTER NO. 1  
PRODUCTION AUGER CAST PILE INSTALLATION**

(ADDRESSEE)

(DATE)

Financial Project ID:

FAP No.:

Contract No.:

County:

Dear (\_\_\_\_\_):

The District (put in which District, 1-7, Turnpike Enterprise) Geotechnical Office has completed its review of the demonstration pile data of the Auger Cast Piles and recommends acceptance of the installation of Production Piles with the equipment, techniques, and source of materials utilized during installation of the Demonstration Pile.

If you have any questions or require further information, please let us know.

Recommended for acceptance by:

\_\_\_\_\_  
District Geotechnical Engineer/Geotechnical Engineer

Authorized for contract administration purpose by:

\_\_\_\_\_  
Resident Engineer

**Guidance Document 10-8-B**

**SAMPLE LETTER No. 2  
PRODUCTION AUGER CAST PILE INSTALLATION**

(ADDRESSEE)

(DATE)

Re: Financial Project ID:  
FAP No.:  
Contract No.:  
County:

Dear (\_\_\_\_\_):

The District (put in which District, 1-7, Turnpike Enterprise) Geotechnical Office has completed its review of the demonstration pile data of the Auger Cast Piles and recommends acceptance of the installation of Production Piles with the equipment, techniques, and source of materials utilized during installation of the Demonstration Pile.

If you have any questions or require further information, please let us know.

Recommended for acceptance by:

\_\_\_\_\_  
Consultant Geotechnical Engineer

Concurrence by: \_\_\_\_\_  
District Geotechnical Engineer (if required by District)

Authorized for contract administration purpose by:

\_\_\_\_\_  
Resident Engineer