



## Florida Department of Transportation

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### **ESTIMATES BULLETIN 15-06**

### **STRUCTURES DESIGN BULLETIN 15-08**

*(FHWA Approved: August 28, 2015)*

DATE: August 28, 2015

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Consultant Project Management Engineers, District Construction Engineers, District Maintenance Engineers, District Geotechnical Engineers, District Structures Design Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Specifications Engineers, District Estimates Engineers, Program Management Engineers

FROM: Phillip “Greg” Davis, P.E., State Estimates Engineer  
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COPIES: Brian Blanchard, Tom Byron, David Sadler, Tim Lattner, Trey Tillander, Mark Wilson, Bruce Dana, John Krause, Michael Shepard, Bob Crim, Amy Tootle, Rudy Powell, Daniel Scheer, Greg Schiess, Nicholas Finch (FHWA), Jeffrey Ger (FHWA), Chad Thompson (FHWA), Phillip Bello (FHWA)

SUBJECT: Concrete Piling - 100% Dynamic Testing

This bulletin is intended to address pay item changes related to 100% dynamic testing of all prestressed concrete piles.

### **REQUIREMENTS**

Concrete piling projects identified in the list below shall require 100% Dynamic Testing of production piles utilizing either internal or external instrumentation:

District	Project Number	Letting Date
3	220442-7-52-01	9/30/2015
2	428865-1-52-01	9/30/2015
2	210712-4-52-01	10/28/2015
2	211663-1-52-01	10/28/2015
2	415251-1-52-01	12/2/2015
3	222476-2-52-01	12/2/2015
6	249615-5-52-01	12/2/2015
5	240196-1-52-01	12/2/2015
4	230338-4-52-01	2/24/2016
6	412479-3-52-01	2/24/2016

The following pay items will not be valid for projects listed in this bulletin:

**Pay items 455- 34- AA Prestressed Concrete Piling, LF**

**Pay items 455-143- AA Test Piles- Prestressed Concrete, LF**

The following pay items must be used for projects identified in this bulletin:

**Pay items 455- 34-ABB Prestressed Concrete Piling, LF**

A = Installation Type

1 (Includes 100% Dynamic Testing with Internal Gauges)

2 (Includes 100% Dynamic Testing with External Gauges)

BB= Size

01 (12" Sq.) \*

02 (14" Sq.) \*

03 (18" Sq.)

04 (20" Sq.)

05 (24" Sq.)

06 (30" Sq.)

\*exempt from 100% Dynamic Testing

The following pay items may be required. Please consult the District Geotechnical Engineer for your specific project.

**Pay items 455-143-ABB Test Piles- Prestressed Concrete, LF**

A = Installation Type

1 (Includes 100% Dynamic Testing with Internal Gauges)

2 (Includes 100% Dynamic Testing with External Gauges)

BB= Size

01 (12" Sq.) \*

02 (14" Sq.) \*

03 (18" Sq.)

04 (20" Sq.)

05 (24" Sq.)

06 (30" Sq.)

\*exempt from 100% Dynamic Testing

To provide the contractor with the option of using either internal or external gauges, BOTH pay items must be provided in the contract documents, in the form of pay item alternates. The quantities for both alternates will be the same.

When loading the alternates, include the pay items for 100% Dynamic Testing with Internal Gauges and 100% Dynamic Testing with External Gauges, for both production piles and test piles (when test piles are required on the project). Only one type of testing gauge will be used per contract.

Example Alternates for piling:

AA1	455- 34-1xx	Prestressed Concrete Piling, Includes 100% Dynamic Testing with Internal Gauges, LF
AA1	455-143-1xx	Test Piling, Includes 100% Dynamic Testing with Internal Gauges, LF
AA2	455- 34-2xx	Prestressed Concrete Piling, Includes 100% Dynamic Testing with External Gauges, LF
AA2	455-143-2xx	Test Piling, Includes 100% Dynamic Testing with External Gauges, LF

To facilitate data entry and bidding for multiple bridges on a project, keep alternate AA1 with Internal Gauges and AA2 with External Gauges. Additional guidance for pay item alternates is available in the Basis of Estimates, Section 9-3.4.

Contact your District Estimates Office for assistance with loading the alternates through the Designer Interface.

## **IMPLEMENTATION**

These requirements are to be implemented immediately on the list of projects above. Update the Pile Data Table, Summary of Structures Quantities (summary box) and the Summary of Pay Items (TRNS\*PORT/Project Preconstruction report) in the plans.

For projects let through December 2015, a Mandatory Specification Revision was issued to address the changes to Section 455 of the specifications. It is available at:

<http://www.dot.state.fl.us/programmanagement/Implemented/Workbooks/Revisions/Jul15/Specrev4.pdf>

For projects let January through June 2016, the updated specification will be included in the January 2016 Standard Specifications eBook.

Update the piling quantities to reflect 100% dynamic testing. The piling quantities for both alternates must be the same.

Update the Pile Data Table to require 100% dynamic testing, with or without test piles as follows:

- Show  $\phi_{\text{Compression}} = 0.75$
- Revise the Nominal Bearing Resistance based on  $\phi_{\text{Compression}} = 0.75$
- Revise the Test Pile Lengths using lengths provided by the Geotechnical Engineer
- If omitting test piles, change the Pile Data Table column heading "TEST PILE LENGTH (ft.)" to "PILE ORDER LENGTH (ft.)" and include the appropriate pile order lengths provided by the Geotechnical Engineer
- Add the following Pile Installation Note:  
Dynamic testing is required for all piles.

Provide the following data to the Structures Design Office via email (see contact below) for each project:

Estimated pile and test pile quantities without 100% dynamic testing and resistance factor = 0.65

Estimated pile and test pile quantities with 100% dynamic testing and resistance factor = 0.75

## **CONTACTS**

### **Structures**

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