



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 09-12 Technical Advisory

May 7, 2009

TO: All Design, Operations, and District Personnel, and Consultants

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SUBJECT Piling

REVISES: *Indiana Design Manual Sections 66-3.02(01) and 67-1.03*

EFFECTIVE: September 10, 2009, Letting

The 2010 INDOT *Standard Specifications* Section 701 regarding piling has been rewritten. It is posted on the Department's website at

<http://www.in.gov/dot/div/contracts/standards/book/sep09/7-2010.pdf>.

INDOT *Standard Drawings* 701-BPIL-02, -04, and -06 have been revised to complement this change. They are posted on the Department's website at

<http://www.in.gov/dot/div/contracts/standards/drawings/sep09/sep.htm>.

Recurring Special Provision 701-B-182 should be called for through the August 2011 letting. It is attached.

The pay items have been extensively affected. Each structure's pile types, and the need for other piling-related work will still be specified in the geotechnical report. However, piling-related work will be specified based on the pay items shown in new Section 701. The design requirements shown in the *Indiana Design Manual* are unchanged.

A side-by-side comparison of 2008 and 2010 *Standard Specifications* pay-item names is shown in attached Figure 09-12A. The 2010 *Standard Specifications* code numbers, pay-item names, and pay units are listed in attached Figure 09-12B.

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Attachments

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2008 STANDARD SPECIFICATIONS PAY ITEM	2010 STANDARD SPECIFICATIONS PAY ITEM
Cored Hole in Rock, ____ in.	[same]
Dynamic Pile Load Test	[same]
[nonexistent]	Pile, Concrete, ____ in. x ____ in.
[nonexistent]	Pile, Prestressed Concrete, ____ in. x ____ in.
Pile, Concrete, Steel Shell Encased, _____, _____ shell thickness diameter	Pile, Steel Pipe, _____, _____ pipe-wall thickness diameter
Pile, Reinforced Concrete, Steel Shell Encased, Epoxy Coated, _____, _____ shell thickness diameter	Pile, Steel Pipe, Epoxy Coated, _____, _____ pipe-wall thickness diameter
[nonexistent]	Pile Shoe, _____ x _____ pile type size, if HP
Pile, Steel H, Epoxy Coated, HP ____ x ____ size	[same]
Pile, Steel H, HP ____ x ____ size	[same]
Pile, Steel H, Reinforced Concrete Encased, HP ____ x ____ size	[same]
Pile, Timber, Driven	Pile, Timber
Pile, Timber, Furnished	[deleted]
Pile, Timber, Treated, Driven	Pile, Timber, Treated
Pile, Timber, Treated, Furnished	[deleted]
Pile Tip, _____, _____ pile size type	Conical Pile Tip, _____ diameter
[nonexistent]	Piling, Restock
Static Pile Load Test, _____ pile size	[same]
Test Pile [pay unit: each]	Test Pile, Dynamic, _____, Non-Production [pay unit: LFT (m)] pile size
[nonexistent]	Test Pile, Indicator, _____, Non-Production

	pile size
[nonexistent]	Test Pile, Static Load, _____, Non-Production pile size
[nonexistent]	Test Pile, Dynamic, Production
[nonexistent]	Test Pile, Indicator, Production
Test Pile, Restrike, _____ pile size	Test Pile, Dynamic, Restrike
[nonexistent]	Test Pile, Indicator, Restrike

**COMPARISON OF 2008 AND 2010 STANDARD SPECIFICATIONS
PILING-RELATED PAY-ITEMS NAMES**

Figure 09-12A

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2010 STANDARD SPECIFICATIONS CODE NUMBERS, PAY-ITEM NAMES, AND PAY UNITS

Figure 09-12B

All items are *Standard Specifications* reference 701. Pay unit is LFT (m) unless indicated as EACH.

09650	Pile, Concrete, 12 in. x 12 in.	Pile, Concrete, 300 mm x 300 mm
09651	Pile, Concrete, 14 in. x 14 in.	Pile, Concrete, 350 mm x 350 mm
09652	Pile, Prestressed Concrete, 12 in. x 12 in.	Pile, Prestressed Concrete, 300 mm x 300 mm
09653	Pile, Prestressed Concrete, 14 in. x 14 in.	Pile, Prestressed Concrete, 350 mm x 350 mm
09654	Pile, Steel Pipe, 0.184 in., 12 in.	Pile, Steel Pipe, 4.67 mm, 300 mm
09655	Pile, Steel Pipe, 0.203 in., 12 in.	Pile, Steel Pipe, 5.16 mm, 300 mm
09656	Pile, Steel Pipe, 0.250 in., 12 in.	Pile, Steel Pipe, 6.35 mm, 300 mm
09657	Pile, Steel Pipe, 0.312 in., 12 in.	Pile, Steel Pipe, 7.92 mm, 300 mm
09658	Pile, Steel Pipe, 0.344 in., 12 in.	Pile, Steel Pipe, 8.74 mm, 300 mm
09659	Pile, Steel Pipe, 0.375 in., 12 in.	Pile, Steel Pipe, 9.53 mm, 300 mm
09660	Pile, Steel Pipe, 0.184 in., 14 in.	Pile, Steel Pipe, 4.67 mm, 350 mm
09661	Pile, Steel Pipe, 0.203 in., 14 in.	Pile, Steel Pipe, 5.16 mm, 350 mm
09662	Pile, Steel Pipe, 0.250 in., 14 in.	Pile, Steel Pipe, 6.35 mm, 350 mm
09663	Pile, Steel Pipe, 0.312 in., 14 in.	Pile, Steel Pipe, 7.92 mm, 350 mm
09664	Pile, Steel Pipe, 0.344 in., 14 in.	Pile, Steel Pipe, 8.74 mm, 350 mm
09665	Pile, Steel Pipe, 0.375 in., 14 in.	Pile, Steel Pipe, 9.53 mm, 350 mm
09666	Pile, Steel Pipe, Epoxy Coated, 0.184 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 4.67 mm, 300 mm
09667	Pile, Steel Pipe, Epoxy Coated, 0.203 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 5.16 mm, 300 mm
09668	Pile, Steel Pipe, Epoxy Coated, 0.250 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 6.35 mm, 300 mm

09669	Pile, Steel Pipe, Epoxy Coated, 0.312 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 7.92 mm, 300 mm
09670	Pile, Steel Pipe, Epoxy Coated, 0.344 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 8.74 mm, 300 mm
09671	Pile, Steel Pipe, Epoxy Coated, 0.375 in., 12 in.	Pile, Steel Pipe, Epoxy Coated, 9.53 mm, 300 mm
09672	Pile, Steel Pipe, Epoxy Coated, 0.184 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 4.67 mm, 350 mm
09673	Pile, Steel Pipe, Epoxy Coated, 0.203 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 5.16 mm, 350 mm
09674	Pile, Steel Pipe, Epoxy Coated, 0.250 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 6.35 mm, 350 mm
09675	Pile, Steel Pipe, Epoxy Coated, 0.312 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 7.92 mm, 350 mm
09676	Pile, Steel Pipe, Epoxy Coated, 0.344 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 8.74 mm, 350 mm
09677	Pile, Steel Pipe, Epoxy Coated, 0.375 in., 14 in.	Pile, Steel Pipe, Epoxy Coated, 9.53 mm, 350 mm

For the following, pay unit EACH

09678	Conical Pile Tip, 12 in.	Conical Pile Tip, 300 mm
09679	Conical Pile Tip, 12 in.	Conical Pile Tip, 350 mm

For the following, pay unit EACH

09680	Pile Shoe, Timber	
09681	Pile Shoe, HP 10 x 57	Pile Shoe, HP 250 x 85
09682	Pile Shoe, HP 12 x 63	Pile Shoe, HP 310 x 93
09683	Pile Shoe, HP 12 x 74	Pile Shoe, HP 310 x 110
09684	Pile Shoe, HP 14 x 89	Pile Shoe, HP 360 x 132
09685	Pile Shoe, HP 14 x 102	Pile Shoe, HP 360 x 152

Revert to pay unit LFT (m) from here out

09686	Pile, Timber
09687	Pile, Timber, Treated

09688	Piling, Restock
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09689 Test Pile, Dynamic, 12 in., Non-Production
09690 Test Pile, Dynamic, 14 in., Non-Production
09691 Test Pile, Dynamic, HP 10 x 57, Non-Production
09692 Test Pile, Dynamic, HP 12 x 63, Non-Production
09693 Test Pile, Dynamic, HP 12 x 74, Non-Production
09694 Test Pile, Dynamic, HP 14 x 89, Non-Production
09695 Test Pile, Dynamic, HP 14 x 102, Non-Production

09696 Test Pile, Indicator, 12 in., Non-Production
09697 Test Pile, Indicator, 14 in., Non-Production
09698 Test Pile, Indicator, HP 10 x 57, Non-Production
09699 Test Pile, Indicator, HP 12 x 63, Non-Production
09700 Test Pile, Indicator, HP 12 x 74, Non-Production
09701 Test Pile, Indicator, HP 14 x 89, Non-Production
09702 Test Pile, Indicator, HP 14 x 102, Non-Production

09703 Test Pile, Static Load, 12 in., Non-Production
09704 Test Pile, Static Load, 14 in., Non-Production
09705 Test Pile, Static Load, HP 10 x 57, Non-Production
09706 Test Pile, Static Load, HP 12 x 63, Non-Production
09561 Test Pile, Static Load, HP 12 x 74, Non-Production
09707 Test Pile, Static Load, HP 14 x 89, Non-Production
09708 Test Pile, Static Load, HP 14 x 102, Non-Production

09557 Test Pile, Dynamic, Production
09558 Test Pile, Indicator, Production

09559 Test Pile, Dynamic, Restrike
09560 Test Pile, Indicator, Restrike

Test Pile, Dynamic, 300 mm, Non-Production
Test Pile, Dynamic, 350 mm, Non-Production
Test Pile, Dynamic, HP 250 x 85, Non-Production
Test Pile, Dynamic, HP 310 x 93, Non-Production
Test Pile, Dynamic, HP 310 x 110, Non-Production
Test Pile, Dynamic, HP 360 x 132, Non-Production
Test Pile, Dynamic, HP 360 x 152, Non-Production

Test Pile, Indicator, 300 mm, Non-Production
Test Pile, Indicator, 350 mm, Non-Production
Test Pile, Indicator, HP 250 x 85, Non-Production
Test Pile, Indicator, HP 310 x 93, Non-Production
Test Pile, Indicator, HP 310 x 110, Non-Production
Test Pile, Indicator, HP 360 x 132, Non-Production
Test Pile, Indicator, HP 360 x 152, Non-Production

Test Pile, Static Load, 300 mm, Non-Production
Test Pile, Static Load, 350 mm, Non-Production
Test Pile, Static Load, HP 250 x 85, Non-Production
Test Pile, Static Load, HP 310 x 93, Non-Production
Test Pile, Static Load, HP 310 x 110, Non-Production
Test Pile, Static Load, HP 360 x 132, Non-Production
Test Pile, Static Load, HP 360 x 152, Non-Production

701-B-182 DRIVEN PILING

(Adopted 05-18-09)

The Standard Specifications are revised as follows:

SECTION 701, BEGIN LINE 832, DELETE AS FOLLOWS:

If the quantity of driven piling is less than the plan quantity or the quantity as ordered by the Engineer, the ~~Department will pay for the difference as piling, furnished but not used.~~ The Department will pay 50% of the cost to re-stock unused piling if the Contractor elects to re-stock piling and provides a paid invoice showing the re-stocking fee. Payment will be made for piling, restock.

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