Codes, Specifications and Guidelines pertinent to Dynamic Load Testing and Wave Equation Analysis

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USA:

1) American Society for Testing and Materials ASTM D6760-14 "Standard Test Method for High-Strain Testing of Deep Foundations"
Describes a proper dynamic load test in a similar way that ASTM 1143 describes a proper static load test.
Follow the link from www.pile.com/specifications to the ASTM bookstore.

2) American Society of Civil Engineers "Standard Guidelines for the Design and Installation of Pile Foundations", ASCE 20-96. (1997)
Based on published model building codes and general standards of practice. Mentions Dynamic Testing and Wave Equation Analysis.
For information contact ASCE at 1-800-548-2723 or 703-295-6300 or email pubsful@asce.org

3) US Army Corps of Engineers "Design of Pile Foundations", Engineering Manual (EM 110-2-2906). (1993)
Represents current recommended practice for the US Army Corps of Engineers and prominently features dynamic testing and analysis.
Available from http://140.194.76.129/publications/eng-manuals/

4) U.S. Department of Transportation, Federal Highway Administration "Design and Construction of Driven Pile Foundations." FHWA-NHI-132021, two volumes, (2006).
Volume I covers design. Volume II, covering installation and inspection, reflects FHWA recommendations and devotes over 120 pages to wave equation analysis and dynamic pile testing. This publication is used for workshops presented through FHWA to State Departments of Transportation. Numerous State departments of transportation have adopted these provisions in their State codes.
Copies are available from the National Highway Institute website as Publication Numbers FHWA-NHI-05-042 and 043 or from the Pile Driving Contractors Association, www.piledrivers.org

5) American Association of State Highway and Transportation Officials - AASHTO, "Standard Method of Test for High-Strain Dynamic Testing of Piles." AASHTO Designation T 298-99
A consensus standard developed by several State highway engineers that reflects the acceptance of dynamic testing. Numerous states have their own codes specifying wave equation and dynamic pile testing. (DFI has compiled all State specifications into a two volume reference).
Available from: https://bookstore.transportation.org/

6) American Association of State Highway and Transportation Officials- "AASHTO", " LRFD Bridge Design Specifications", 5th edition, 2010.
Contains provisions for dynamic testing and wave equation analysis. Allows increased resistance factors (equivalent to reduced safety factors) when both wave equation and dynamic measurements are performed in conjunction with static tests.
Available from: https://bookstore.transportation.org/

7) Deep Foundations Institute "Inspector's Manual for Driven Pile Foundations." 2nd Edition, 1997
Presents current practice and recognizes the dynamic testing and analysis.
Available from DFI at www.dfi.org

8) Pile Driving Contractor's Association (PDCA) "Installation Specification for Driven Piles." PDCA Specification 103-07 (August 2007)
Reflects the use and acceptance (including economic incentive and lowered safety factors) of wave equation and dynamic pile testing.
Available from www.piledrivers.org

9) "International Building Code", 2009.
Combines three regional national building codes (SBC, BOCA, and UBC) into a single nationwide code for the United States. References ASTM D4945 in the Foundations Sections (1808 to 1812).
Available from bookstores or online.

10) "Standard Handbook for Civil Engineers", fourth edition, by Frederick Merritt et al, Copyright 1996.
Pile section includes dynamic monitoring and wave equation analysis.
Available from bookstores or online.

We also suggest consulting Beim, G and Likins, G. E., September, 2008. Worldwide Dynamic Foundation Testing Codes and Standards. Proceedings of the Eighth International Conference on the Application of Stress Wave Theory to Piles 2008: Lisbon, Portugal; 689-697.