



DIGITAL LIBRARY

This Digital Library contains links to published technical documents including Codes, Manuals, Articles, and Design Aids to serve as a resource for structural engineers.

Several resources in this library are complimentary to download. Resources that require purchase by the source of the link provided are indicated as 'Available for purchase'.

For a collection of SE University Webinars organized by topic, see [Session Archives](#).

TABLE OF CONTENTS

[BIM / Structural Software](#)

[Checklists](#)

[Codes](#)

[Cold-Formed Steel](#)

[Concrete](#)

[Masonry](#)

[Seismic](#)

[Steel](#)

[Wind](#)

[Wood](#)

Do you have additional resources you wish to see as part of this library? We welcome your feedback! Please email Cathleen Jacinto at Cathleen.Jacinto@LearnWithSEU.com.



DIGITAL LIBRARY

BIM / STRUCTURAL SOFTWARE

- [Creating Processing & Procedures to Reduce Errors While Using Structural Software](#) by SE University

CHECKLISTS

Elevator Design

- [Coordination Checklist for Elevator Design](#)
(Word)
- [Coordination Checklist for Elevator Design](#)
(PDF)

Stair Design

- [Coordination Checklist for Stair Design](#)
(Word)
 - [Coordination Checklist for Stair Design](#)
(PDF)
-



DIGITAL LIBRARY

CODES

ASCE / SEI - Minimum Design Loads for Buildings and Other Structures

- [ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures - Third Printing](#) - Third Printing incorporates Errata, Expanded Seismic Commentary, and Supplement No. 1
(Available for purchase)
 - [Do you have the first, second, or third printing of ASCE 7-10? It matters!](#)
by S.K. Ghosh
Refer to this article for links to the Erratas, Supplement No. 1, and Expanded Seismic Commentary if you have the First or Second Printing of ASCE/SEI 7-10 (PDF)
- [ASCE/SEI 7-05 Minimum Design Loads for Buildings and Other Structures](#)
(Available for purchase)

IBC - International Building Code - Available for Purchase

- [2015 International Building Code - First Printing](#) by ICC
(Available for purchase)
- [2012 International Building Code \(IBC\) Code and Commentary, Volume 1 & 2](#) by ICC
(Available for purchase)
- [2012 International Building Code \(IBC\) Handbook](#) by ICC
(Available for purchase)
- [2012 IBC Structural / Seismic Design Manuals Complete Collection with Volumes 1 through 5](#) by ICC includes:
 - Volume 1: Code Application Examples
 - Volume 2: Examples for Light-Frame, Tilt-up, and Masonry Buildings
 - Volume 3: Examples for Concrete Buildings
 - Volume 4: Examples for Steel-Framed Buildings
 - Volume 5: Examples for Seismically Isolated Buildings with Supplemental Damping
(Available for purchase)



DIGITAL LIBRARY

CODES (continued)

- [2012 IBC SEAOC Structural / Seismic Design Manual Volume 5: Examples for Seismically Isolated Buildings and Building with Supplemental Damping](#) by ICC
(Available for purchase)
- [2009 IBC Structural / Seismic Design Manual Combo \(All Three Volumes\)](#) by ICC
(Available for purchase)
- [Guide to the Design of Diaphragms, Chords, and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05](#) by ICC and NCSEA
(Available for Purchase)

IBC - International Building Code – Available for Online Viewing

- [2012 International Building Code \(IBC\) – Second Printing](#) by ICC
(Code Viewer)
 - [2009 International Building Code \(IBC\), Sixth Printing](#) by ICC
(Code Viewer)
 - ICC Code Adoptions Maps and Charts:
 - [ICC State Adoption Map](#)
 - [ICC State Adoption Chart](#)
 - [ICC State Adoption Chart for 2012 Codes Only](#)
 - [ICC Jurisdiction Adoption Chart](#)
-



DIGITAL LIBRARY

COLD-FORMED STEEL

- [Cold-Formed Steel Design Resources](#) by SE University
 - This document lists resources provided by Roger LaBoube during the June 2014 SE University session. It includes references and links to CFSEI Tech Notes and Design Guides on a variety of topics.
 - [AISI Cold-Formed Steel Design Manual, 2013 Edition](#) – Volume I and Volume II
(Available for purchase)
 - [AISI S100-07 W/S2-10: North American Specification for the Design of Cold-Formed Steel Structural Members, 2007 Edition with Supplement 2](#)
(Available for purchase)
 - [AISI S100-12: Commentary to the North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 Edition with Supplement 2](#)
(Available for purchase)
 - [AISI 2012 Framing Standards Bundle](#)
(Available for purchase)
 - [2014 Cold-Formed Steel Design Library](#)
(Available for purchase)
 - [AISI S213-07 W/S1-09: AISI North American Standard for Cold-Formed Steel Framing – Lateral Design, 2007 Edition with Supplement 1](#)
(Available for purchase)
 - [AISI Brick Veneer Cold-Formed Steel Framing Design Guide, 2013 Edition](#)
(Available for purchase)
 - [2012 IBC Structural / Seismic Design Manual Volume 2: Examples for Light-Frame, Tilt-Up, and Masonry](#) by ICC
(Available for purchase)
-



DIGITAL LIBRARY

CONCRETE

- [ACI 318-14 Building Code Requirements for Structural Concrete and Commentary](#)
(Available for purchase)
- [ACI 318-14 Resource Center](#) to aid transition to the 2014 of ACI 318; Includes transition keys, articles, papers, presentations, and videos
- [ACI 318-11 Building Code Requirements for Structural Concrete and Commentary](#)
(Available for purchase)
- [ACI 318-08 Building Code Requirements for Structural Concrete and Commentary](#)
(Available for purchase)
- [ACI 347R-14 Guide to Formwork for Concrete](#)
(Available for purchase)
- [ACI 360R-10 Guide to Design of Slabs-on-Ground](#)
(Available for purchase)
- [ACI 546R-14 Guide to Concrete Repair](#)
(Available for purchase)
- [2012 IBC Structural / Seismic Design Manual Volume 3: Examples for Concrete Buildings](#) by ICC
(Available for purchase)
- [NEHRP Seismic Design Technical Brief No. 1 – Seismic Design of Reinforced Concrete Special Moment Frames: A Guide for Practicing Engineers](#)
(PDF)
- [NEHRP Seismic Design Technical Brief No. 3 – Seismic Design of Cast-in-Place Concrete Diaphragms, Chords, and Collectors: A Guide for Practicing Engineers](#)
(PDF)
- [NEHRP Seismic Design Technical Brief No. 6 – Seismic Design of Cast-in-Place Concrete Special Structural Walls and Coupling Beams: A Guide for Practicing Engineers](#)
(PDF)



DIGITAL LIBRARY

CONCRETE (continued)

- [NEHRP Seismic Design Technical Brief No. 7 – Seismic Design of Reinforced Concrete Mat Foundations: A Guide for Practicing Engineers](#)
(PDF)
 - [P2P Initiative: Shift to Performance-Based Specifications for Concrete](#) by NRMCA
 - [Guide to Improving Specifications for Ready Mixed Concrete](#)
(PDF)
 - [Simplified Methods in Reinforced Concrete Design](#) by Jerod Johnson
 - [Significant Changes from the 2008 to the 2011 Edition of ACI 318 by S.K. Ghosh](#)
(PDF)
 - [ACI Web Sessions](#) – Complete List of Web Sessions on a variety of concrete topics
(Complimentary videos)
-



DIGITAL LIBRARY

MASONRY

- [TMS 402-13 / ACI 530/530.1-13 / ASCE 5-13: 2013 Building Code Requirements and Specification for Masonry Structures and Companion Commentaries](#)
(Available for purchase)
 - [TMS 402-11 / ACI 530/530.1-11 / ASCE 5-11: 2011 Building Code Requirements and Specification for Masonry Structures and Companion Commentaries](#)
(Available for purchase)
 - [TMS 402-08 / ACI 530/530.1-08 / ASCE 5-08: 2008 Building Code Requirements and Specification for Masonry Structures and Companion Commentaries](#)
(Available for purchase)
 - [2012 IBC Structural / Seismic Design Manual Volume 2: Examples for Light-Frame, Tilt-Up, and Masonry](#) by ICC
(Available for purchase)
 - [NEHRP Seismic Design Technical Brief No. 9 – Seismic Design of Special Reinforced Masonry Shear Walls: A Guide for Practicing Engineers](#)
(PDF)
 - [Structural Masonry Design Tips](#) blog by SE University
 - [NCMA E-Details](#) – NCMA’s online annotated design and construction details for concrete masonry. These downloadable details help reduce design and detailing time and effort. (PDF, DWG, DWF, and WMF files)
 - [NCMA E-Tek Documents](#) NCMA's library of concrete masonry documents ranging from building codes and specifications to details.
(PDF)
 - [Concrete Masonry Design Webinars](#) by Dr. Russell H. Brown – Includes an overview of masonry codes, Design of walls for out-of-plane loads, and Design of shearwalls and columns.
(Complimentary videos)
-



DIGITAL LIBRARY

SEISMIC

- [ANSI/AISC 341-10: 2010 Seismic Provisions for Structural Steel Buildings, Third Printing](#)
(PDF)
- [ASCE 41-13: Seismic Evaluation and Retrofit of Existing Buildings](#)
(Available for Purchase)
- [2012 IBC Structural / Seismic Design Manuals Complete Collection with Volumes 1 through 5](#) by ICC includes:
 - Volume 1: Code Application Examples
 - Volume 2: Examples for Light-Frame, Tilt-up, and Masonry Buildings
 - Volume 3: Examples for Concrete Buildings
 - Volume 4: Examples for Steel-Framed Buildings
 - Volume 5: Examples for Seismically Isolated Buildings with Supplemental Damping(Available for purchase)
- [2012 IBC SEAOC Structural / Seismic Design Manual Volume 5: Examples for Seismically Isolated Buildings and Building with Supplemental Damping](#) by ICC
(Available for purchase)
- [2009 IBC Structural / Seismic Design Manual Combo \(All Three Volumes\)](#) by ICC
(Available for purchase)
- [NEHRP Technical Briefs](#)
(PDF)
- [Guide to the Design of Diaphragms, Chords, and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05](#) by ICC and NCSEA
(Available for Purchase)
- [Seismic Design Provisions of ASCE 7-10: Changes from ASCE 7-05](#) by Susan Dowty
- [Significant Changes from ASCE 7-05 to ASCE 7-10, Part 1: Seismic Design Provisions](#) by S.K. Ghosh
- [U.S. Seismic Design Maps](#) by USGS
(Design tool at no charge)



DIGITAL LIBRARY

STEEL

Steel Codes and Manuals

- [AISC Steel Construction Manual, 14th Ed, Third Printing and Seismic Design Manual, 2nd Ed.](#)- Supports the 2010 AISC Specification and 2010 Seismic Provisions
(Available for purchase)
- [ANSI/AISC 360-10: 2010 Specification for Structural Steel Buildings, Third Printing](#)
(PDF)
- [ANSI/AISC 341-10: 2010 Seismic Provisions for Structural Steel Buildings, Third Printing](#)
(Code viewer)
- [AISC 14th Edition Steel Construction Manual Design Examples Version 14.1](#)
(Code viewer)
- [ANSI/AISC 358-10 with ANSI/AISC 358s1-11 and ANSI/AISC 358s2-14: AISC 2010 Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications with Supplement No. 1 and Supplement No. 2](#)
(Code viewer)
- [AISC 303-10: 2010 Code of Standard Practice for Structural Steel Buildings and Bridges](#)
(Code viewer)
- [2009 RCSC Specification for Structural Joints Using High-Strength Bolts](#)
(Code viewer)
- [2012 IBC Structural / Seismic Design Manual Volume 4: Examples for Steel-Framed Buildings](#) by ICC
(Available for purchase)
- [NEHRP Seismic Design Technical Brief No. 2 – Seismic Design of Steel Special Moment Frames: A Guide for Practicing Engineers](#)
(PDF)



DIGITAL LIBRARY

STEEL (continued)

- [NEHRP Seismic Design Technical Brief No. 5 – Seismic Design of Composite Steel Deck and Concrete-Filled Diaphragms: A Guide for Practicing Engineers](#)
(PDF)
- [NEHRP Seismic Design Technical Brief No. 8 – Seismic Design of Steel Special Concentrically Braced Frames: A Guide for Practicing Engineers](#)
(PDF)
- [AISC Detailing for Steel Construction, 3rd Edition](#) – Corresponds to ANSI/AISC 360-05 and ANSI/AISC 341-05
(Available for purchase)
- [AWS D1.1/D1.1M: 2010 Structural Welding Code – Steel, 2nd Printing](#)
(Available for purchase)

Steel Design Aids

- [AISC Shapes Database V14.1](#)
(XLS)
- [AISC New Shape Sections](#)
(PDF)
- [AISC Basic Design Values Cards](#) – Two 5”x8” cards cover design information for typical applications of W-shape, HSS, pipe, connections, and analysis requirements in both ASD and LRFD.
(PDF)
- [RAM Estimator Tool](#) - The RAM Estimator is a tool that can be opened in Microsoft Excel, and uses a Visual Basic Macro to read a RAM Structural System database file. The file reports back the length and weight for beams/columns/braces in the structure, and by entering a cost per ton for steel, provides an estimated cost for the structural steel.
(XLS)



DIGITAL LIBRARY

STEEL (continued)

- [SteelTOOLS Library](#) by AISC - Collection of design aids including ASCE 7-10 Wind Load Calculator, Connection Design Spreadsheets, Anchor Bolt Design per ACI 318-11, Crane beam design, IBC 2009 Seismic loading analysis, Weld Strength Calculator, etc. (Design tools available for download at no charge)
- [Steel Tube Institute HSS Design Aids](#) – Files are available for WF Beam to HSS Column Moment and Shear Connections, HSS Truss Connections, and an HSS Column Design aid. (Design tools available for download at no charge)

Steel Articles and Additional Resources

- [AISC Interactive Reference List](#) – This website provides links to literature referred to in the 14th Edition Steel Construction Manual grouped by the Part of the Manual in which they appear. (Resources available for purchase only are indicated with a lock symbol)
- [AISC Steel Design Guides](#)
(PDF at no charge for AISC members)
- [Architecturally Exposed Structural Steel](#), 2003, by Steel Liason Committee of SEAOC & Rocky Mountain Steel Construction Association
(PDF)
- [Comparison of ANSI/AISC 360-10 to ANSI/AISC 360-05](#) by Eric Bolin, Tom Dehlin, and Louis Geschwindner
(PDF)
- [Engineering Guide: Fire Exposures to Structural Elements](#) by SFPE Task Group on Fire Exposures to Structural Elements, James Quintiere, Chairman
(PDF)
- [Reference List for Industrial Buildings and Non-Building Structures](#)
(Web page containing links to resources)
- [Steel Design Rules of Thumb](#) by SE University



DIGITAL LIBRARY

STEEL (continued)

- [SteelWise – A Collection of Steel Design Articles for Structural Engineers](#)
(PDF)
- [All About Bolts](#) by David Ruby, P.E., S.E.
(PDF)
- [30 Good Rules for Connection Design](#) by Carol Drucker, S.E.
(PDF)

Steel Joists

- [Catalog of Standard Specifications and Load and Weight Tables for Steel Joists and Joist Girders, 43rd Edition](#) by SJI – Load Tables and Weight Table for K-Series, LH-Series, DLH-Series, and Joist Girders
(PDF)
- [Standard Specifications for Composite Steel Joists, 1st Edition](#), 2007 by SJI - Includes Supplement No. 1 for the Standard Specifications for Composite Steel Joists and Code of Standard Practice; Load Tables and Weight Table for CJ-Series
(PDF)

WIND

- [Wind Loads: Guide to the Wind Load Provisions of ASCE 7-10](#)
(Available for purchase)
- [Significant Changes to the Wind Load Provisions of ASCE 7-10](#)
(Available for purchase)
- [AISC Serviceability Limit States Under Wind Load](#) by Lawrence Griffis
(PDF)
- [Guide to the Design of Diaphragms, Chords, and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05](#) by ICC and NCSEA
(Available for Purchase)



DIGITAL LIBRARY

WOOD

- [ANSI/AWC NDS-2015 National Design Specification for Wood Construction – 2015](#)
(Available for purchase; View-only version also available at no charge if you click on the cover)
- [ANSI/AWC NDS-2012 National Design Specification for Wood Construction – 2012](#)
(Available for purchase; View-only version also available at no charge if you click on the cover)
- [ANSI/AWC NDS-2005 National Design Specification for Wood Construction – 2005](#)
(Available for purchase; View-only version also available at no charge if you click on the cover)
- [ASD/LRFD Manual and National Design Specification for Wood Construction](#)
(PDF)
- [ASCE 7-10 Wind Provisions and Effects on Wood Design and Construction](#)
(PDF)
- [2012 IBC Structural / Seismic Design Manual Volume 2: Examples for Light-Frame, Tilt-Up, and Masonry](#) by ICC
(Available for purchase)
- [NEHRP Seismic Design Technical Brief No. 10 – Seismic Design of Wood Light-Frame Structural Diaphragm Systems: A Guide for Practicing Engineers](#)
(PDF)
- [Guide to the Design of Diaphragms, Chords, and Collectors: Based on the 2006 IBC and ASCE/SEI 7-05](#) by ICC and NCSEA
(Available for Purchase)
- [The Analysis of Irregular Shaped Structures: Diaphragms and Shear Walls](#) by Terry Malone and Robert Rice
(Available for purchase)



DIGITAL LIBRARY

WOOD (continued)

- [Library of Free Wood Publication Downloads](#) by American Wood Council (PDFs)
- [Design of Wood Structures - ASD/LRFD](#) by Donald Breyer, Kenneth Fridley, David Pollock Jr., and Kelly Cobeen (Available for Purchase)
- [Wood Engineering and Construction Handbook](#) by Faherty and Williamson (Available for Purchase)
- [Woodworks – The Analysis of Irregular Shaped Diaphragms by Terry Malone](#) (PDF)