NDS, National Design Specification for Wood Construction ASD/LRFD: For wood construction ASD, , American Forest & Paper Association, American Forest & Paper Association, 2005, , . .

Principles of field and mining geology , James Donald Forrester, 1946, Science, 647 pages. .

Manual on Uniform Traffic Control Devices: Inserts Only , Department of Transportation, Federal Highway Administration, 2003, Reference, 754 pages. .

Wood Design Package: Manual for engineered wood construction , Dan L. Wheat, American Forest & Paper Association, Steven M. Cramer, American Wood Council, American National Standards Institute, 2006, Crafts & Hobbies, 160 pages. .

Simplified design of structural wood , Harry Parker, James E. Ambrose, May 11, 1988, Technology & Engineering, 305 pages. .

National design specification for stress-grade lumber and its fastenings , National Lumber Manufacturers Association, 1944, Crafts & Hobbies, 64 pages. .

Kraft recovery boilers , Terry N. Adams, American Wood Council, American Forest & Paper Association, 1997, , 381 pages. .

Span tables for joists and rafters American softwood lumber, standard sizes PS 20-70, American Forest & Paper Association, National Forest Products Association, 1992, Technology & Engineering, 42 pages. .

Fundamentals of machines for those preparing for war service, Glenn Moody Hobbs, Lacey Harvey Morrison, Ray Forest Kuns, 1943, Physics, 294 pages. .

Building Code Requirements and Specification for Masonry Structures , , Jun 30, 2008, , 256 pages. Covers the design and construction of masonry structures, the minimum construction requirements for masonry in structures, and includes definitions, contract documents, quality ....

Highway Curves and Earthwork , Thomas Felix Hickerson, 1926, Curves in engineering, 382 pages. .

Allowable stress design/load and resistance factor design wood design package , Dan L. Wheat, Steven M. Cramer, American Wood Council, American Forest & Paper Association, American National Standards Institute, 2006, , 160 pages. .

Sewerage and sewage treatment , Harold Eaton Babbitt, Edward Robert Baumann, 1958, Technology & Engineering, 790 pages. .

Design provisions in the NDS are integral with design values in the NDS Supplement. As such, it is not appropriate to mix design values and provisions from different editions of the NDS. For example, the 2001 NDS Supplement contains increased shear design values for sawn lumber to reflect changes in ASTM D245 and provisions of the 2001 NDS were revised to address these increases.

A technical report has been published to facilitate design of connections. This report covers calculation of lateral values for single dowel type fastener connections using a generalized and expanded form of the NDS yield limit equations. General Dowel Equations for Calculating Lateral Connection Values: Technical Report 12. This document is also in PDF.

The 2005 Edition of the National Design Specification for Wood Construction was approved as an American National Standard on January 6, 2005. The 2005 NDS was developed as a dual format specification incorporating design provisions for both allowable stress design (ASD) and load and resistance factor design (LRFD). The NDS is adopted in all model building codes in the U.S. and is used to design wood structures worldwide.

Articles appear in the Winter 2004 edition of Wood Design Focus about the contents and application of the 2005 NDS. For an overview of what the new NDS contains, click here. Wood Design Focus is a journal of the Forest Products Society and is one of the benefits of AWC Design Professional Membership. Also, an eCourse STD104 on the 2005 NDS is available to help users get acquainted with the standard.

The 2005 NDS is available only as part of the complete 2005 Wood Design Package. Thus, neither the NDS and Supplement, the Commentaries, SDPWS, nor the ASD/LRFD Manual will be sold separately to purchasers. However, all parts of the Wood Design Package except the 2005 NDS and Solved Example Problems are available to download from this webpage.

The ANSI/AF&PA SDPWS-2005 covers materials, design and construction of wood members, fasteners, and assemblies to resist wind and seismic forces. Engineered design of wood structures to resist wind or seismic forces is either by allowable stress design (ASD); or load and resistance factor design (LRFD).

The ASD/LRFD Manual contains design information for structural lumber, glued laminated timber, structural-use panels, shear walls and diaphragms, poles and piles, I-joists, structural composite lumber, metal plate connected wood trusses, and pre-engineered metal connectors. Over 40 details are included in the chapter on connections. A comprehensive chapter on fire design includes fire rated wall and floor assemblies for solid sawn lumber, I-joists, and trusses. For an overview, click here.

Structural Wood Design Solved Example Problems is intended to aid instruction on structural design of wood structures using both allowable stress design and load and resistance factor design. Forty example problems allow direct side-by-side comparison of ASD and LRFD for wood structures. For an overview, click here.

This CodeMaster contains information about designing typical wood framing members, including glued laminated timber, in accordance with the 2009 IBC, ASCE 7-05, and 2005 NDS. This handy laminated guide explains the design process in ten easy-to-understand steps beginning with determining loads and load combinations.

The Allowable Stress Design (ASD) Manual for Engineered Wood Construction, 2001 Edition is packaged with the code recognized National Design Specification (NDS) for Wood Construction (2001 Edition), and Supplement: Design Values for Wood Construction. The ASD Manual brings together all required elements for design of wood structures in one comprehensive package. It includes design information and examples for wind and seismic, structural lumber, glued laminated timber, structural-use panels, shear walls and diaphragms, poles and piles, I-joists, structural

composite lumber, structural connections (nails, bolts, screws), metal plate connected wood trusses, and pre-engineered metal connectors. Over 900 pages.

The Commentary on the 1991 National Design Specification for Wood Construction was first published in 1993. It contains background information concerning provisions of the NDS complete with historical development, example problems, and tables comparing the 1991 design provisions with earlier editions of the standard.

The NDS for Wood Construction 2001 contains many changes from the 1997 edition which are summarized in this eCourse. Significant changes include new product chapters on prefabricated wood I-joists, structural composite lumber, wood structural panels, poles, shear walls and diaphragms, fire design, and a new appendix for local stresses in members at connections. The course also covers revised provisions for: shear design (coinciding with increased shear design values) and notching, end grain bearing, volume factors, connections, and connection tables.

AWC's National Design Specification (NDS) for Wood Construction 2012 is the dual format Allowable Stress Design (ASD) and Load Resistance Factor Design (LRFD) document referenced in US building codes and used to design wood structures worldwide. Participants will learn about changes in the 2012 NDS and Supplement relative to previous editions and gain an overview of the standard.

This learn-by-example workbook-course provides a design example, typical checklist, and background information related to design of a wood-frame structure in accordance with AF&PA's Wood Frame Construction Manual (WFCM) for One- and Two- Family Dwellings, 2001 Edition. The design example uses plans from a 2-story residence as the basis for a structural design to resist wind, seismic, and snow loads. The workbook is heavily referenced to the 2001 WFCM to aid in understanding how to use the time-saving tools and tables offered by the 2001 WFCM. Download the PDF workbook and work through it from the beginning.

This presentation uses the 2012 Wood Frame Construction Manual (WFCM) as the basis for describing how wind loads are developed from the wind speeds shown in ASCE 7-10 Minimum Design Loads for Buildings and Other Structures. The WFCM prescriptive method will is used to illustrate the magnitude and applied location for loads applicable to low-rise wood frame construction.

This webinar will be a continuation of the Loads webinar and use the loads developed previously to illustrate the importance of load path continuity in buildings. Vertical and lateral load paths will be described including the role of shear walls in buildings. The 2012 Wood Frame Construction Manual (WFCM) will be used as the basis for loads and load paths that must be determined in design of low-rise wood frame construction.

This webinar builds on the two previous Load and Load Path webinars and describes how connectors are used to create load paths in the structure and how the 2012 Wood Frame Construction Manual (WFCM) and calculated loads are used to determine connector type and size. Reference to connector products available in the marketplace will be made without identifying particular manufacturers.

This webinar builds on the three previous Load, Load Path, and Connections webinars to describe how loads must be transferred through the building to reach the foundation system. Foundation systems utilizing elevated piles will be emphasized. Due to minimal design information on elevated foundations in the building code, this webinar is intended to provide some design basics that may not be readily available.

Per the International Building Code (IBC), structures using wood shear walls and diaphragms to resist wind, seismic and other lateral loads shall be designed and constructed in accordance with AWC's Special Design Provisions for Wind and Seismic (SDPWS). This course will discuss the 2008 SDPWS which is a dual format document with both allowable stress design (ASD) and load and resistance factor design (LRFD). In this course, participants will learn about format of the SDPWS and how to apply ASD and LRFD design provisions to shear walls and diaphragms as well as about changes from previous editions.

Per the International Building Code (IBC), structures using wood shear walls and diaphragms to resist wind, seismic and other lateral loads shall be designed and constructed in accordance with AWC's Special Design Provisions for Wind and Seismic (SDPWS). Calculation of wood-frame diaphragm deflection should account for bending and shear deflections, fastener deformation, chord splice slip, and other contributing sources of deflections. The 2008 SDPWS incorporates both a 3-term and 4-term deflection equation that accounts for these variables. This course will provide an overview and comparison of the 3-term and 4-term deflection equations. Additionally, an example showing calculation of mid-span deflection of a blocked wood structural panel diaphragm will be presented.

Discussion of building code requirements for wood-frame buildings with an emphasis on the International Building Code's allowable heights and areas. Also discusses fire resistance issues like flame spread performance, component additive method to determine fire resistance, one-hour rated fire walls, and heavy timber fire resistance calculations.

This CEU provides an overview of fire protection in wood buildings with a focus on compliance with the 2009 IBC, and is based on the Code Conforming Wood Design Series developed by the American Wood Council (AWC) and the International Code Council. Building fire safety incorporates a combination of passive and active features. A passive fire safety feature may limit the height and area of the building, prescribe the use of fire-rated building elements or provide for adequate means of egress. Active fire safety features are those such as automatic fire detection or suppression systems that provide occupant notification, alarm transmittance and the ability to suppress fire growth until the fire service arrives. Codes are relying increasingly on active systems, since, with proper maintenance and alarm supervision, they have a high degree of reliability. This CEU covers the fundamentals of passive and active fire protection. It includes a summary of allowable wood use in buildings in accordance with the 2009 IBC, emphasizing the design flexibilities permitted for wood in non-residential and multifamily construction.

DCA 6 includes guidance on provisions of the 2009 International Residential Code (IRC) pertaining to single level residential wood deck construction. Provisions contained in this document that are not included in the IRC are considered good practice recommendations. Based on the limited number of changes to deck provisions in the 2012 IRC, the DCA 6 2009 IRC version can be used in jurisdictions enforcing the 2012 IRC. This webinar will provide an overview of DCA 6 along with its Commentary and include several examples showing application of the deck guide.

This seminar presents current wood connection design philosophy, behavior, serviceability issues, and connection design techniques for small and large wood members, panel products, and wood assemblies, using dowel-type and specialized components. Glued connections will also be discussed along with a brief introduction to connection design software.

Construction techniques that prevent moisture from entering a wood-framed structure including: a discussion of code-required clearances, site drainage, correct placement of moisture barriers, remedies for improper design, preservative treated wood, grading issues, and tips on preventing moisture-related insect and fungal attack.

This eCourse explains different construction types and the behavior of small structures and structural elements under gravity, seismic, and wind forces. Principles and typology of lateral load resistance systems are discussed including prescriptive braced wall lines as addressed by the 2000

IBC/2000 IRC. An introduction to engineered shear wall design, location, and inspection points is offered. Throughout, this eCourse demonstrates how AF&PA's Wood Frame Construction Manual addresses these topics for one- and two-family dwellings.

Lateral-torsional buckling is a limit state where beam deformation includes in-plane deformation, out-of-plane deformation, and twisting. This eCourse explores AWC's Technical Report No. 14 which describes the basis of the current effective length approach used in NDS and summarizes the equivalent uniform movement factor approach; provides a comparison between the two approaches; and proposes modification to NDS design provisions.

In this eCourse, the definitions of green building and their relationship to sustainable building materials are reviewed. Various green building rating systems are examined and their respective treatments of wood as a building material are discussed. The differences in those treatments will be reviewed and their ramifications will be further explored. Internet sources for information on the subject of sustainable buildings are examined. Finally, the qualities which make wood a sustainable construction material are reviewed, the characteristics which make wood a green building material are discussed, and how various rating schemes treat each of wood's characteristics are reviewed.
http://eduln.org/1333.pdf
http://eduln.org/2223.pdf
http://eduln.org/1695.pdf
http://eduln.org/2626.pdf
http://eduln.org/1336.pdf
http://eduln.org/625.pdf
http://eduln.org/2571.pdf
http://eduln.org/590.pdf
http://eduln.org/2414.pdf
http://eduln.org/2339.pdf
http://eduln.org/2230.pdf
http://eduln.org/2185.pdf