

UNIFORM BUILDING CODE



**1985
EDITION**

UNIFORM BUILDING CODE

1985 Edition



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Preface

THE UNIFORM BUILDING CODE is dedicated to the development of better building construction and greater safety to the public by uniformity in building laws. The code is founded on broad-based performance principles that make possible the use of new materials and new construction systems.

THE UNIFORM BUILDING CODE was first enacted by the International Conference of Building Officials at the Sixth Annual Business Meeting held in Phoenix, Arizona, October 18-21, 1927. Revised editions of this code have been published since that time at approximate three-year intervals. New editions incorporate changes approved since the last edition.

THE UNIFORM BUILDING CODE is designed to be compatible with related publications listed on the following pages to provide a complete set of documents for regulatory use.

Anyone may propose amendments to this code. For more information, write to the International Conference of Building Officials at the address on the copyright page.

Changes to the code are processed each year and published in supplements in a form permitting ready adoption by local communities. These changes are carefully reviewed in public hearings by professional experts in the field of building construction and fire and life safety.

Solid vertical lines in the margins indicate a change from the requirements of the 1982 edition except where the entire chapter was revised, a new chapter was added or the change was minor. Where an entire chapter is changed or new chapter was added, a notation appears at the beginning of that chapter. Vertical lines in the margins that are interrupted by the letter "F" indicate that the provision is maintained under the code change procedures of the Western Fire Chiefs Association. Deletion indicators (◆) are provided in the margin where a paragraph or item listing has been deleted if the deletion resulted in a change of requirements.

An analysis of changes between editions is published in pamphlet form by the Conference.

RELATED PUBLICATIONS

Known widely for its Uniform Building Code, the International Conference of Building Officials publishes other related codes as well as textbooks to enable the user to improve his knowledge of code enforcement and the administration of a building inspection program. Publications are continually being added, so inquiries should be directed to Conference headquarters for a list of those available. At the time of this publication, the following publications were available:

Uniform Building Code. Covers the fire, life and structural safety aspects of all buildings and related structures.

Uniform Building Code Standards. Presents in a compact and concise manner national test, material and special design standards referred to in the Uniform Building Code.

Uniform Mechanical Code. Contains requirements for the installation and maintenance of heating, ventilating, cooling and refrigeration systems. This publication is sponsored jointly by the International Conference of Building Officials and the International Association of Plumbing and Mechanical Officials.

Uniform Plumbing Code. Published by the International Association of Plumbing and Mechanical Officials, the Uniform Plumbing Code covers all aspects of plumbing, including requirements for plumbing materials, and IAPMO installation standards. It is endorsed by the Conference as a companion document to ICBO's model codes and is available from either organization.

Uniform Housing Code. Provides complete requirements affecting conservation and rehabilitation of housing. Its regulations are compatible with the Uniform Building Code.

Uniform Code for the Abatement of Dangerous Buildings. Sets forth orderly procedures for remedying dangerous buildings. Follows due process provisions which reflect the latest court decisions in such matters. This code covers all structures and may be used to supplement the Uniform Housing Code and the Uniform Building Code.

Uniform Sign Code. Dedicated to the development of better sign regulation. Its requirements pertain to all signs and sign construction attached to buildings.

Uniform Administrative Code. This code covers administration areas in connection with adoption of the Uniform Building Code, Uniform Mechanical Code and related codes by a jurisdiction. It contains provisions which relate to site preparation, construction, alteration, moving, repair and use and occupancies of buildings or structures and building service equipment including plumbing, electrical and mechanical. The code is compatible with the administrative provisions of all codes published by the Conference.

Uniform Building Security Code. This code establishes minimum standards to make dwelling units resistant to unlawful entry. It regulates swinging doors, sliding doors, windows and hardware in connection with dwelling units of apartment houses or one- and two-family dwellings. The code gives consideration to the concerns of police, fire and building officials in establishing requirements for resistance to burglary which are compatible with fire and life safety.

Dwelling Construction under the Uniform Building Code. Designed to acquaint the home builder with basic Building Code requirements relating to dwelling construction. A useful text for apprentice training programs.

Uniform Fire Code. Sets out provisions necessary for fire prevention while achieving uniformity in terms and requirements with other codes published by the Conference. This code is sponsored jointly by the Western Fire Chiefs Association and the International Conference of Building Officials.

Uniform Fire Code Standards. This publication is a companion to the Uniform Fire Code. It contains standards of the American Society for Testing and Materials and of the National Fire Protection Association referenced by the Uniform Fire Code.

U.B.C. Supplements. Between new editions of the codes, changes approved each year are incorporated in the supplements.

Analysis of Revisions. Discusses the changes included in the latest codes published by the Conference as compared to the prior editions.

CABO One and Two Family Dwelling Code. This code is jointly sponsored by the International Conference of Building Officials, Building Officials and Code Administrators International, Inc., and Southern Building Code Congress International, Inc. It eliminates conflicts and duplications among the model codes to achieve national uniformity. Covers mechanical and plumbing requirements as well as construction and occupancy.

Application and Commentary CABO One and Two Family Dwelling Code. An interpretive commentary on the CABO One and Two Family Dwelling Code intended to enhance uniformity of interpretation and application of the code nationwide. Developed by the three model code organizations under contract with the Department of Housing and Urban Development (HUD) and in cooperation with the National Association of Home Builders (NAHB).

CABO Model Energy Code. This code sets forth minimum requirements for effective use of energy in the design of new buildings and structures and additions to existing buildings. It is based on ASHRAE Standard 90A-1980 and was originally developed jointly by ICBO, BOCA, SBCCI and the National Conference of States on Building Codes and Standards (NCSBCS) under a contract funded by the U.S. Department of Energy. The code is now maintained by the Council of American Building Officials (CABO) and is adopted by reference in the Uniform Building Code.

Uniform Disaster Mitigation Plan. A plan developed to aid building departments in coping with major disasters such as fires, floods and earthquakes. Defines standard operating procedures for initiating disaster assessment and mitigation and includes samples of records, reports, entry signs, etc.

National Electrical Code. The National Electrical Code is the electrical code for the majority of states, counties and cities in the United States. Researched and published every three years by the National Fire Protection Association, it is an indispensable aid to every electrician, electrical inspector, electrical equipment manufacturer, architect, builder, consulting engineer, contractor, fire marshal, fire chief, building inspector and anyone who must specify or certify electrical installations.

1984 National Fire Codes. Available through ICBO are the 1984 National Fire Codes published by the National Fire Protection Association (NFPA). The eight-volume set provides guidelines for code enforcement, inspection, design and maintenance of buildings in a single source reference.

Building Department Administration. An excellent guide for improvement of skills in departmental management and in the enforcement and application of the Building Code and other regulations administered by a building inspection department. Recommended for both undergraduate and advanced study.

Uniform Building Code Application/Interpretation Manual. A manual discussing sections of the Uniform Building Code with a question/answer format, providing a comprehensive analysis of the intent of the code section. Most sections include illustrative examples. The manual is in loose-leaf form so that code interpretations published in *Building Standards* may be inserted.

Plan Review Manual. Provides an understanding of the extent of Building Code provisions and illustrates application to given situations. Covers nonstructural aspects as well as providing an insight into the basic engineering considerations a plan examiner or checker must utilize.

Field Inspection Manual. Designed to improve inspection skills and techniques. A fundamental important text for courses of study at the community college and trade or technical school level.

Building Official Management Manual. This manual addresses the unique nature of code administration and the managerial duties of the building official. A supplementary insert addresses the budgetary and financial aspects of a building department. It is also an ideal resource for those preparing for the management module of the CABO Building Official Certification Examination.

Illustrated Mechanical Manual. Contains a series of illustrations with explanatory text covering requirements in the Uniform Mechanical Code which respond to graphic treatment. It is highly useful for code application and for training purposes.

Solar Systems Code Review Manual. A completely illustrated manual to facilitate approval of solar systems, from plan check to field inspection. Specifically addresses needs of building departments, and is equally valuable to all departments dealing with housing and commercial structures. Developed by California Building Officials, Inc., (CALBO) under contract with the California Energy Commission.

Solar Swimming Pool/Spa Code Review Manual. A completely illustrated manual to assist local officials in identifying, understanding and completing a code analysis of solar pool and spa heating systems presented for permit approval. Developed by the California Building Officials, Inc., (CALBO) under contract to the California Energy Commission.

Concrete Manual. A publication on concrete to be used for reference or as a text on concrete inspection. Of particular interest to inspectors, it is also useful to concrete technicians and craftsmen who are more concerned with the physical and practical aspects of concrete than the design.

You Can Build It! Sponsored by the Council of American Building Officials (CABO), this booklet contains information and advice to aid "do-it-yourselfers" with building projects. Provides guidance in necessary procedures such as permit requirements, codes, plans, cost estimation, etc.

Installation and Operation of Solid-fuel-burning Appliances. A fully illustrated manual designed to provide information on the proper installation and operation of listed solid-fuel-burning appliances. Intended to supplement the detailed installation and operating instructions normally supplied with these types of appliances. An aid to building officials administering ICBO codes and standards and/or utilizing evaluation reports.

Recommended Provisions and Commentary for Existing High-rise Buildings. A booklet setting forth uniform guidelines for the building official to follow in regulating the retrofitting of existing high-rise buildings. The booklet also includes a commentary briefly explaining the conceptual basis of the provisions.

Guidelines for Manufactured Housing Installation. A guideline in code form implementing the Uniform Building Code and its companion code documents to regulate the permanent installation of a manufactured home on a privately owned nonrental site. A commentary is included to explain specific provisions, and codes applying to each component part are defined.

Guidelines for Solar Energy Installations. Provides an understanding of requirements protecting public health and safety where solar systems are utilized. Compatible with the Uniform Building, Mechanical and Plumbing Codes and the National Electrical Code. Developed by ICBO and IAPMO with the technical assistance of the solar industry under a contract between the California Building Officials and the California Energy Commission.

EFFECTIVE USE OF THE UNIFORM BUILDING CODE

The following procedure may be helpful in using the Uniform Building Code:

1. Classify the building:
 - A. **OCCUPANCY GROUP:** Determine the occupancy group which the use of the building most nearly resembles. See the '01 sections of Chapters 5 through 12. See Section 503 for buildings with mixed occupancies.
 - B. **TYPE OF CONSTRUCTION:** Determine the type of construction of the building by the building materials used and the fire resistance of the parts of the building. See Chapters 17 through 22.
 - C. **LOCATION ON PROPERTY:** Determine the location of the building on the site and clearances to property lines and other buildings from the plot plan. See Table No. 5-A and '03 sections of Chapters 18 through 22 for exterior wall and wall opening requirements based on proximity to property lines. See Section 504 for buildings located on the same site.
 - D. **FLOOR AREA:** Compute the floor area of the building. See Table No. 5-C for basic allowable floor area based on occupancy group and type of construction. See Section 506 for allowable increases based on location on property and installation of an approved automatic fire-sprinkler system. See Section 505 (b) for allowable floor area of multistory buildings.
 - E. **HEIGHT AND NUMBER OF STORIES:** Compute the height of the building, Section 409, from grade, Section 408, and for the number of stories, Section 420. See Table No. 5-D for the allowable height and number of stories based on occupancy group and type of construction. See Section 507 for allowable story increase based on the installation of an approved automatic fire-sprinkler system.
 - F. **OCCUPANT LOAD:** Compute the occupant load of the building. See Section 3302 and Table No. 33-A.
2. Verify compliance of the building with detailed occupancy requirements. See Chapters 6 through 12.
3. Verify compliance of the building with detailed type of construction requirements. See Chapters 17 through 22.
4. Verify compliance of the building with exit requirements. See Chapter 33.
5. Verify compliance of the building with detailed code regulations. See Chapters 29 through 43, Chapters 47 through 54, and Appendix.
6. Verify compliance of building with engineering regulations and requirements for materials of construction. See Chapters 23 through 29.

The following is a sample form for adoption of the Uniform Building Code and Uniform Building Code Standards.

**SAMPLE ORDINANCE FOR ADOPTION OF THE
UNIFORM BUILDING CODE AND
UNIFORM BUILDING CODE STANDARDS
ORDINANCE NO. _____**

An ordinance of the _____ (jurisdiction) adopting the 1985 edition of the Uniform Building Code and the 1985 edition of the Uniform Building Code Standards regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings or structures in the _____ (jurisdiction); providing for the issuance of permits and collection of fees therefor; providing for penalties for the violation thereof, repealing Ordinance No. _____ of the _____ (jurisdiction) and all other ordinances and parts of the ordinances in conflict therewith.

The _____ (governing body) of the _____ (jurisdiction) does ordain as follows:

Section 1. That certain documents, three (3) copies of which are on file and are open for inspection of the public in the office of the _____ (jurisdiction's keeper of records) of the _____ (jurisdiction), being marked and designated as:

A. *Uniform Building Code, 1985 Edition*, published by the International Conference of Building Officials, including the generic fire-resistive assemblies listed in the Fire Resistance Design Manual, 1981 Edition, published by the Gypsum Association as referenced in Tables Nos. 43-A, 43-B and 43-C (also reference Appendix Chapter 35, if adopted) of the specified Uniform Building Code, including Appendix Chapters _____. [Fill in the applicable Appendix chapters (see *Uniform Building Code Section 103, last paragraph*). If reference is made to Appendix Chapter 51, an additional reference to ANSI/ASME A17.1, 1981, *Safety Code for Elevators and Escalators*, should be added and three (3) copies of this code should also be on file (see Appendix Sections 5109 and 5111)], and

B. *Uniform Building Code Standards, 1985 Edition*, published by the International Conference of Building Officials, including (i) Structural Welding Code—Reinforcing Steel, AWS D1.4-79 (U.B.C. Standard No. 26-8); (ii) Structural Welding Code—Steel, ANSI/AWS D1.1-84 (U.B.C. Standard No. 27-6); (iii) Structural Welding Code—Sheet Steel, ANSI/AWS D1.3-81 (U.B.C. Standard No. 27-16) published by the American Welding Society, Inc.; and (iv) Standard for the Installation of Sprinkler Systems, NFPA 13-1980, published by the National Fire Protection Association (U.B.C. Standard No. 38-1), as modified or amended in the Uniform Building Code Standards referenced herein; be and the same are hereby adopted as the code of the _____ (jurisdiction) for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings or structures in the _____ (jurisdiction) providing for issuance of permits and collection of fees therefor; and each and all of the regulations, provisions, conditions and terms of such *Uniform Building Code, 1985 Edition*,

and *Uniform Building Code Standards, 1985 Edition*, published by the International Conference of Building Officials, and the secondary publications referenced above, all of which are on file in the office of the (jurisdiction) are hereby referred to, adopted and made a part hereof as if fully set out in this ordinance.

Section 2. (Incorporate penalties for violations. See Section 205).

Section 3. That Ordinance No. _____ of (jurisdiction) entitled *(fill in the title of building ordinance or ordinances in effect at the present time)* and all other ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 4. That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be invalid or unconstitutional, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The (governing body) hereby declares that it would have passed this ordinance, and each section, subsection, clause or phrase hereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

Section 5. That the (jurisdiction's keeper of records) is hereby ordered and directed to cause this ordinance to be published. *(An additional provision may be required to direct the number of times the ordinance is to be published and to specify that it is to be in a newspaper in general circulation. Posting may also be required.)*

Section 6. That this ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect (time period) from and after the date of its final passage and adoption.

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