# ATTENTION USERS OF THIS CODE:

Please note that section 30.025 of THIS CODE adopts, by reference, the latest version of the Wisconsin Uniform Dwelling Code (UDC) Chapters SPS 320 through 325 for alterations & additions to all one & two-family dwellings built prior to June 1, 1980.

Copies of the Uniform Dwelling Code are available from:

**State Document Sales**
**P.O. Box 7840**
**Madison, Wisconsin 53707**

**Tel: (608) 266-3358**

***OR***

**(608) 267-4405 for UDC Code Commentary only**

(Charge card orders are accepted by calling (800) 362-7253.)

***OR***

View the codes on the State of Wisconsin Department of Safety & Professional Services – Safety & Buildings ***web site*** at:

**http://www.Safety & Professional Services.state.wi.us/SB/SB-HomePage.html**

# WISCONSIN
# UNIFORM BUILDING CODE

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TABLE OF CONTENTS


CHAPTER I. GENERAL

SECTION 30.00 Scope
SECTION 30.01 Title
SECTION 30.02 Application of "Wisconsin Administrative Code"
SECTION 30.025 Application of "Wisconsin Uniform Dwelling Code"
SECTION 30.03 Application of "Wisconsin Uniform Building Code"

CHAPTER II. BUILDING INSPECTOR & PERMITS

SECTION 30.04 Building Inspector
SECTION 30.05 Permits
SECTION 30.06 Approved Plans
SECTION 30.07 Regulations for Moving Buildings
SECTION 30.08 Razing of Buildings
SECTION 30.09 Inspections
SECTION 30.10 Stop-Work Order
SECTION 30.11 Certificate of Occupancy

CHAPTER III. GARAGES & ACCESSORY BUILDINGS

SECTION 30.20 General Requirements

CHAPTER IV. DECKS

SECTION 30.30

CHAPTER V. SWIMMING POOLS

SECTION 30.40

CHAPTER VI. FOUNDATION REPAIR & DAMPPROOFING

SECTION 30.50

CHAPTER VII. ALTERATIONS & REMODELING FOR PRE-1980 ONE & TWO- FAMILY DWELLINGS.

SECTION 30.55

CHAPTER VIII. MISCELLANEOUS & VIOLATIONS

SECTION 30.60 New Materials & Methods

SECTION 30.61 Tests
SECTION 30.62 Identification of Products
SECTION 30.63 Validity of Past
SECTION 30.64 Violations
SECTION 30.65 Failure to Obtain Permit

## CHAPTER I. -- GENERAL

### SECTION 30.00 -- SCOPE

The provisions of the WISCONSIN UNIFORM BUILDING CODE (THIS CODE) shall govern the design, construction, alteration, demolition & moving of all buildings & structures constructed prior to the effective date of the State of Wisconsin Department of Safety & Professional Services (SPS) Uniform Dwelling Code.

### SECTION 30.01 -- TITLE

These regulations shall be known & cited as "Municipal Building Code" & shall be construed to secure their expressed intent & to ensure public safety, health & welfare insofar as they are dependent upon building construction.

### SECTION 30.02 – ADOPTION OF COMMERCIAL BUILDING CODE.

The following Wisconsin Administrative Codes, their referenced codes & standards, & subsequent revisions are hereby made a part of THIS CODE & adopted for municipal enforcement by the Building Inspector, who shall be certified as a SPS Commercial Building Inspector by the State of Wisconsin Department of Safety & Professional Services:

**ICC Codes**

2009 International Building Code (IBC), with Wisconsin Amendments
2009 International Energy Conservation Code (IECC), with Wisconsin Amendments
2009 International Mechanical Code (IMC), with Wisconsin Amendments
2009 International Fuel Gas Code (IFGC), with Wisconsin Amendments
2009 International Existing Building Code (IEBC), with Wisconsin Amendments

**Wisconsin Commercial Building Code**

SPS 360 Erosion control, sediment control & storm water management
SPS 361 Administration & enforcement
SPS 362 Buildings & structures
SPS 363 Energy conservation
SPS 364 Heating, ventilating & air conditioning
SPS 365 Fuel gas appliances
SPS 366 Existing buildings
SPS 360 – 366 Appendixes A & B

### SECTION 30.025 -- APPLICATION OF "WISCONSIN UNIFORM DWELLING CODE".

The Wisconsin Uniform Dwelling Code, Chapters SPS 320 through 325, inclusive & all amendments thereto, are hereby made a part of THIS CODE by reference & shall apply to all one & two family dwellings & alterations & additions thereto. Except as provided in Section 30.55(1.), this code shall also apply to alterations & additions to all one & two family dwellings constructed prior to the effective date of the Wisconsin Uniform Dwelling Code. A copy of said code is on file in the office of the Municipal Clerk.

SECTION 30.03 -- APPLICATION OF "WISCONSIN UNIFORM BUILDING CODE".

All buildings & structures hereafter erected, altered, repaired, moved or demolished that are used or designed to be used for the purpose herein defined shall comply in full with the requirements of THIS CODE.

(1.) ZONING LAWS -- No provision of THIS CODE shall be construed to repeal, modify or constitute an alternative to any lawful zoning regulations.

(2.) NEW BUILDINGS -- The construction requirements of the Wisconsin Uniform Building Code shall apply to all buildings not covered under Section 30.02.

(3.) EXISTING BUILDINGS -- THIS CODE shall also apply to buildings & conditions described in this section.

(a.) An existing building to be occupied as a one or two family dwelling which building was not previously so occupied.

(b.) An existing structure that is altered or repaired, when the cost of such alterations or repair during the life of the structure exceeds fifty (50) percent of the equalized value of the structure, said value to be determined by the assessor of the municipality.

(c.) Additions & alterations, regardless of cost, made to an existing building shall comply with the requirements of THIS CODE. The provisions of subsection (4) of this section shall also apply.

(d.) Roof Coverings -- Whenever more than twenty-five (25) percent of the roof covering of a building is replaced in any twelve month period, all roof covering shall be in conformity with applicable sections of THIS CODE.

(e.) Additions & Alterations -- Any addition or alteration, regardless of cost, made to a building shall be made in conformity with applicable sections of THIS CODE.

(4.) ALTERATIONS & REPAIRS -- The following provisions shall apply to buildings altered or repaired:

(a.) Alterations -- When not in conflict with any regulations, alterations to any existing building or structure, accommodating a legal occupancy & use but of non-conforming type of construction which involves either the structural members of floors or roofs, beams, girders, columns, bearing or other walls, room heating & air conditioning systems, arrangement, light & ventilation, changes in location of exit stairways or exits or any of the above, then such existing construction shall be made to conform to the minimum requirements of THIS CODE applicable to such occupancy & use & given type of construction.

(b.) Repairs -- Repairs for purposes of maintenance or replacements in any existing building or structure which do not involve the structural portions of the building or structure or which do not effect room arrangement, light & ventilation, access to or efficiency of any exit stairways or exits, fire protection or exterior aesthetic

appearance & which do not increase a given occupancy & use, shall be deemed minor repairs.

(c.) Alterations When Not Permitted -- When an existing building or structure, which for any reason whatsoever does not conform to the regulations of THIS CODE, has deteriorated from any cause whatsoever to an extent greater than fifty (50) percent of the equalized value of the building or structure, no alterations or moving of such building or structure shall be permitted. Any such building or structure shall be considered a menace to public safety & welfare & shall be ordered vacated & thereafter demolished & debris removed from the premises.

(d.) Alterations & Repairs Required -- When any of the structural members of any building or structure have deteriorated from any cause whatsoever to less than their required strength, the owner of such a building or structure shall cause such structural members to be restored to their required strength; failing in which the building or structure shall be considered a menace to public safety & shall be vacated & thereafter no further occupancy or use of the same shall be permitted until the regulations of THIS CODE are complied with.

(e.) Extent of Deterioration -- The amount & extent of deterioration of any existing building or structure shall be determined by the Building Inspector.

(f.) Use of Unsanitary Building -- It shall be unlawful to occupy or use or permit the occupancy or use of any building or structure that is unsanitary or dilapidated, or deteriorated, or out of repair, thereby being unfit for human habitation, occupancy or use until the regulations of THIS CODE have been complied with.

## CHAPTER II. -- BUILDING INSPECTOR & PERMITS

SECTION 30.04 -- BUILDING INSPECTOR

There is hereby created the Department of Building Inspection. The Building Inspector, appointed by the Municipality, shall act as head of this department.

(1.) DUTIES -- The Building Inspector is vested with the authority & responsibility to enforce all laws controlling safe building construction. He shall make periodic inspection of existing public buildings to determine their safety. He shall make inspections at the site of buildings damaged, by any cause whatsoever, to determine the safety of buildings affected thereby.

(2.) RIGHTS -- The Building Inspector, or his authorized agent, shall have the power & authority, at all reasonable hours, for any proper purpose, to enter upon any public or private premises & make inspection thereof & to require the production of the permit for any building, plumbing, electrical or heating work being done or the required license therefore. No person shall interfere with or refuse to permit access to any such premises to the above described representatives of the municipality while in the performance of their duties.

(3.) RECORDS -- There shall be kept, in the Department of Building Inspection, a record of all applications for building permits in a book for such purpose & each permit shall be regularly numbered in the order of its issue. Also, a record showing the number, description size of all buildings erected indicating the kind of materials used & the cost of each building & aggregate cost of all buildings in the various classes, shall be kept. There shall be kept, in the Department of Building Inspection, a record of all inspections made of all removal & condemnation of buildings & a record of all fees collected showing the date of their receipt. The Building Inspector shall make a written annual report to the governing body of the municipality relative to these matters.

SECTION 30.05 -- PERMITS

(1.) PERMITS REQUIRED -- No building or structure, or any part thereof, shall hereafter be built, enlarged, altered or demolished within the municipality or moved into, within or out of the municipality except as hereinafter provided, unless a permit therefore shall first be obtained by the owner or his agent from the Building Inspector.

Permits required are as follows:

(a.) Building

(b.) Air conditioning

(c.) Wrecking or razing

(d.) Heating

(e.) Moving of buildings

(f.) Occupancy

(g.) Reroofing & residing

(h.) Other permits as required by governing municipality &/or as listed in the Table No. 1 permit fee schedule.

(2.) APPLICATION FOR PERMITS -- Application for a building permit shall be made in writing upon a blank form to be furnished by the Building Inspector & shall state the name & address of the owner of the building & the owner of the l& on which it is to be erected, the name & address of the designer & shall set forth legal description of the l& on which the building is to be located, the location of the building, the house number thereof & such other information as the Building Inspector may require. With such application, there shall be submitted, to the Building Inspector, three (3) complete sets of plans, specifications & three (3) copies of a survey.

(a.) Survey -- The survey shall be prepared & certified by a surveyor or registered by the State of Wisconsin; shall be made, in no case, prior to one (1) year prior to the issuance of a building permit; & shall bear the date of the survey. The certified survey shall also show the following:

1. Location & dimensions of all buildings on the lot, both existing & proposed.

2. Dimensions of the lot.

3. Dimensions showing all setbacks to all buildings on the lot.

4. Proposed grade of proposed structure, to city or village datum.

5. Grade of lot & of road opposite lot.

6. Grade & setback of adjacent buildings. If adjacent lot is vacant, submit elevation of nearest buildings on same side of the road.

7. Type of monuments at each corner of lot.

8. Water courses or existing drainage ditches.

9. Seal & signature of surveyor.

(b.) Plans & Specifications -- All plans shall be drawn to a scale not less than one-fourth (1/4) inch per foot, on paper or cloth in ink, or by some other process that will not fade or obliterate, & shall disclose the existing & proposed provisions for water supply, sanitary sewer connections & surface water drainage. All dimensions shall be accurately figured. Drawings that do not show all necessary detail shall be rejected. A complete set of plans for residential construction shall consist of:

1. All elevations.

2. All floor plans.

3. Complete construction details.

4. Fireplace details (3/4 inch per foot) showing cross section of fireplace & flues.

5. Plans of garage when garage is to be built immediately or location of garage when it is to be built at a later date.

All plans shall remain on file in the office of the Building Inspector until at least one (1) year after the completion of the building, after which time the Building Inspector may return the same to the owner, may keep them for public record or may destroy them.

(3) WAIVER OF SOME REQUIREMENTS -- At the option of the Building Inspector, plans, data, specifications & survey need not be submitted with an application for permit to execute minor alterations & repairs to any building, structure or equipment, provided the proposed construction is sufficiently described in the application for permit.

(4.) DRAINAGE

(a.) Grading of lots -- The plans shall show the present & proposed grades of the lot on which it is proposed to erect the building for which a building permit is sought & of the immediately adjoining property in sufficient detail to indicate the surface water drainage before & after the completion of the grading. No permit shall be issued if the erection of the building & the proposed grades shall unreasonably obstruct the natural flow of water from the surface of adjoining property or obstruct the flow of any existing ravine, ditch, drain or storm water sewer draining neighboring property, unless suitable provision is made for such flow by means of an adequate ditch or pipe, which shall be shown on the plans & shall be constructed so as to provide continuous drainage at all times.

(5.) INSPECTOR MAY REVOKE PERMITS.

(a.) The Building Inspector may revoke any permit, certificate of occupancy or approval issued under the regulations of THIS CODE & may stop construction or use of approved new materials, equipment, methods of construction, devices or appliances for any of the following reasons:

1. Whenever there is a violation of any regulation of THIS CODE or of any other ordinance, law or lawful orders or Wisconsin Statute relating to the same subject matter.

2. Whenever the continuance of any construction becomes dangerous to life or property.

3. Whenever there is any violation of any condition or provision of the application for permit or of the permit.

4. Whenever, in the opinion of the Building Inspector, there is inadequate supervision provided on the job site.

5. Whenever any false statement or misrepresentation has been made in the application for permit, plans, drawings, data, specifications or certified lot or plot plan on which the issuance of the permit or approval was based.

6. Whenever there is a violation of any of the conditions of an approval or occupancy given by the Building Inspector for the use of any new materials, equipment, methods of construction devices or appliances.

(b.) The notice removing a permit, certificate of occupancy or approval shall be in writing & may be served upon the applicant for the permit, owner of the premises & his agent, if any, & on the person having charge of construction.

(c.) A revocation placard shall also be posted upon the building structure, equipment or premises in question by the Building Inspector.

(d.) After the notice is served upon the persons as aforesaid & posted, it shall be unlawful for any person to proceed thereafter with any construction operation whatsoever on the premises & the permit which has been so revoked shall be null & void & before any construction or operation is again resumed, a new permit, as required by THIS CODE, shall be procured & fees paid therefore & thereafter the resumption of any construction or operation shall be in compliance with the regulation of THIS CODE.

(6.) FEES

Before receiving a building permit, the owner or his agent shall pay the fee specified in Table 1. In applying, the provisions of THIS CODE, in respect to new work, existing buildings, alterations & repairs, the physical value of the work shall be determined by the Building Inspector on the basis of current costs or as otherwise provided in the local ordinances.

SECTION 30.06 -- APPROVED PLANS

(1.) A weatherproof card, signed by the Building Inspector, indicating the permit has been issued shall be posted at the job site during construction. After issuance of a building permit, the approved plans shall not be altered unless any proposed change is first approved by the Building Inspector as conforming to the provisions of THIS CODE.

(2.) EXPIRATION OF PERMIT

(a.) Existing buildings & any alterations or additions thereto, accessory buildings & accessory structures.

The building permit shall become void unless operations are commenced within four (4) months from the date the permit is issued or if the building or work authorized by such permit is suspended at any time after work is commenced, for a period of more than sixty (60) days. The building permit shall expire twelve

(12) months from the date the permit is issued. Time periods referenced herein may be extended by the Building Inspector if the delay was due to conditions beyond the control of the applicant. No additional permits for the same work will be issued unless a timetable of completion is agreed upon by the Building Inspector.

(b.) New dwellings.

The building permit shall expire twenty-four (24) months after issuance if the dwelling exterior has not been completed. Administrative service fees may be charged after permit expiration at the discretion of the Building Inspector. See Table-1, item B.

(c.) New Commercial buildings.

The building permit shall become void unless operations are commenced within four (4) months from the date the permit is issued or if the building or work authorized by such permit is suspended at any time after work is commenced, for a period of more than sixty (60) days. The building permit shall expire twelve (12) months from the date the permit is issued. Time periods referenced herein may be extended by the Building Inspector if the delay was due to conditions beyond the control of the applicant. No additional permits for the same work will be issued unless a timetable of completion is agreed upon by the Building Inspector.

(3.) Before any work is commenced or recommenced after the permit has lapsed, a new permit shall be issued at one-half (1/2) the regular fee rate.

SECTION 30.07 -- REGULATIONS FOR MOVING BUILDINGS

(1.) GENERAL -- No person shall move any building or structure upon any of the public right-of-ways of the municipality without first obtaining a permit therefore from the Building Inspector & upon the payment of the required fee. Every such permit issued by the Building Inspector for the moving of a building shall designate the route to be taken, the conditions to be complied with & shall limit the time during which said moving operations shall be continued.

(2.) MOVING DAMAGED BUILDINGS -- No building shall be repaired, altered or moved within or into the municipality that has deteriorated or has been damaged by any cause (including such moving & separation from its foundation & service connections in case of moved buildings) fifty (50) percent or more of its equalized value & no permit shall be granted to repair, alter or move such building within or into the municipality.

(3.) CONTINUOUS MOVEMENT -- The movement of buildings shall be a continuous operation during all the hours of the day, & day by day & at night, until such movement is fully completed. All of such operations shall be performed with the least possible obstruction to thoroughfares. No building shall be allowed to remain overnight upon any street crossing or intersection, or so near thereto as to prevent easy access to any fire hydrant or any other public facility. Lighted lanterns shall be kept in conspicuous places at each end of the building during the night.

(4.) STREET REPAIR -- Every person receiving a permit to move a building shall, within one day after said building reaches its destination, report the fact to the Building Inspector who shall thereupon, in the company of the municipal highway commissioner, inspect the streets & highways over which said building has been moved & ascertain their condition. If the removal of said building has caused any damage to any street or highway, the person to whom the permit was issued shall forthwith place them in good repair as they were before the permit was granted. On the failure of the said permittee to do so within ten (10) days thereafter to the satisfaction of the governing body, said body shall repair the damage done to such streets & hold the person obtaining such permit & the sureties on his bond responsible for the payment of same.

(5.) CONFORMANCE WITH CODE -- No permit shall be issued to move a building within or into the municipality & to establish it upon a location within the said municipality until the Building Inspector has made an investigation of such building at the location from which it is to be moved & is satisfied from such investigation that said building is in a sound & stable condition & of such construction that it will meet the requirements of this Building Code in all respects. A complete plan of all further repairs, improvements & remodeling, with reference to such building, shall be submitted to the Building Inspector, & he shall make a finding of fact to the effect that all such repairs, improvements & remodeling are in conformity with the requirements of this Building Code & that when same are completed, the building, as such, will so comply with said Building Code. In the event a building is to be moved from the municipality to some point outside of the boundaries thereof, the provisions, with respect to the furnishing of plans & specifications for proposed alterations to such building, may be disregarded.

(6.) BOND

(a.) Before a permit is issued to move any building over any public way in this municipality, the party applying therefore shall give a bond to the municipality in a sum, to be fixed by the Building Inspector, & which shall not be less than Twenty Five Thousand Dollars ($25,000). Said bond is to be executed by a corporate surety or two personal sureties to be approved by the governing body or designated agent conditioned upon, among other things, the indemnification to the municipality for any costs or expenses incurred by it in connection with any claims for damages to any persons or property, & the payment of any judgment, together with the costs or expenses incurred by the municipality in connection therewith, arising out of the removal of the building for which the permit is issued.

(b.) Unless the Building Inspector, upon investigation, shall find it to be a fact that the excavation exposed by the removal of such building from its foundation shall not be so close to a public thoroughfare as to permit the accidental falling therein of travelers or the location, nature & physical characteristics of the premises & the falling into such excavation by children under 12 years of age unlikely, the bond required by (a) shall be further conditioned upon the permittee erecting adequate barriers & within forty-eight (48) hours, filling in such excavation or adopting & employing such other means, devices or methods approved by the Building Inspector & reasonably adopted or calculated to prevent the occurrences set forth herein.

(7.) INSURANCE -- The Building Inspector shall require, in addition to said bond above indicated, public liability insurance covering injury to one person in the sum of not less

than Five Hundred Thousand Dollars ($500,000) & for one accident in a sum not less than One Million Dollars ($1,000,000), together with property damage insurance in a amount not less Five Hundred Thousand Dollars ($500,000), or such other coverage as deemed necessary.

(8) PLAN COMMISSION OR OTHER ASSIGNED BOARD OR COMMISSION

(a.) No such permit shall be issued unless it has been found as a fact by the Plan Commission of the municipality by at least a majority vote, after an examination of the application for the permit which shall include exterior elevations of the building & accurate photographs of all sides & views of the same & in case it is proposed to alter the exterior of said building, plans & specifications of such proposed alterations & after a view of the building proposed to be moved & of the site at which it is to be located, that the exterior architectural appeal & functional plans of the building to be moved or moved & altered, will not be so at variance with either the exterior architectural appeal & functional plan of the buildings already constructed or in the course of construction in the immediate neighborhood or in the character of the applicable district established by the zoning ordinances of the municipality or any ordinance amendatory thereof or supplementary thereto, as to cause a substantial depreciation in the property values of said neighborhood within said applicable district. In case the applicant proposes to alter the exterior of said building after moving the same, he shall submit, with his application papers, complete plans & specifications for the proposed alterations. Before a permit shall be issued for a building to be moved & altered, the applicant shall give a bond to the municipality's Plan Commission, which shall not be less than $1,000 to be executed in the manner provided in subsection (6) hereof to the effect that he will, within a time to be set by the Plan Commission, complete the proposed exterior alterations to said building in the manner set forth in his plans & specifications. This bond shall be in addition to any other bond or surety which may be required by other applicable ordinances of the municipality. No occupancy permit shall be issued for said building until the exterior alterations proposed to be made have been completed.

(b.) Upon application being made to the Building Inspector, he shall request a meeting of the Plan Commission to consider applications for moving permits which he has found comply, in all respects, with all other ordinances of the municipality. The Plan Commission may, if it desires, hear the applicant for the moving permit in question &/or the owner of the lot on which it is proposed to locate the building in question, together with any other persons, either residents or property owners, desiring to be heard, giving such notice of hearing as they may deem sufficient. Such hearing may be adjourned for a reasonable length of time & within forty-eight (48) hours after the close of the hearing, the Plan Commission shall, in writing, make or refuse to make the finding required by subsection (8) hereof & file it in the office of the clerk, who shall send a copy of it to the Building Inspector.

SECTION 30.08 -- RAZING OF BUILDINGS

(1.) RAZING OF BUILDINGS -- The Building Inspector is hereby authorized to act for the municipality under the provisions of Section 66.0413 of the Wisconsin Statutes, relating to the razing of buildings & all acts amendatory thereof & supplementary thereto. The municipal treasurer is authorized to place the assessment & collect the special tax as therein provided.

(2.) Before a building can be demolished or removed, the owner or agent shall notify all utilities having service connections within the building, such as water, electric, gas, sewer & other connections.

(3.) Demolition

Permits are required prior to any demolition. The municipality may require a performance bond. The municipality may also require erosion control, plumbing, street occupancy, cutting, & wrecking permits.

Any potential asbestos, lead & other hazards shall be identified & removal can only occur after a notice of intent shall be filed with the Department of Natural Resources.

Erosion control methods must be in place & approved by the building inspector prior to any demolition.

Sewer, water, electric, gas & other connections to the property shall be properly abandoned in a safe manner that shall be approved by the building, electrical, & plumbing inspector prior to demolition.

The use of a torch for cutting may require a permit & approval by the fire inspector.

Street occupancy permits may be required for any street material or dumpster storage or pavement cuts.

All municipal sidewalks, curbs, approaches, & other public property shall be protected from damage.

The site shall be protected by a fence & maintained secure at all times.

Sanitary facilities shall be required for on-site workers.

Hours of demolition shall be approved by the building inspector.

Demolition shall be performed from the top down, floor by floor.

Chutes shall be used to transfer materials above one story.

Dust control methods shall be required at all times.

Waste material shall be removed & not stored on-site.

Burning of waste materials shall be prohibited.

Floor slabs, footings, & foundations shall be removed or broken into pieces less than 1 foot in diameter, unless approved by the building inspector.

All disturbed areas shall be graded to match adjoining grades or to the satisfaction of the building inspector.

Topsoil (2 inches minimum) & grass are required if the lot is to be left vacant.

Special demolition methods utilizing explosives shall be approved by the governing body.

A final site inspection shall be required.

SECTION 30.09 -- INSPECTIONS

(1.) COORDINATED INSPECTIONS -- All provisions of the laws & regulations of the municipality & of legally adopted rules of local fire & health officials in respect to the operation, equipment, housekeeping, fire protection, handling & storage of flammable materials, liquids & gases & the maintenance of safe & sanitary conditions of use in occupancy in all buildings shall be strictly enforced by the administrative officials to whom such authority is delegated. Whenever inspection by any authorized enforcement officer discloses any violation of the provisions of THIS CODE, or of any other rules, regulations or laws, he shall immediately notify the administrative officer having jurisdiction of the violation.

(2.) CERTIFIED REPORT -- The Building Inspector may require a certified report of all required inspections as regulated by THIS CODE from the registered architect or registered engineer supervising the construction of any building, structure or equipment requiring their supervision. Such certified report shall state, in detail, that all construction work has been executed in accordance with all of the regulations of THIS CODE, approved plans, specifications, terms of the permit &, further, that such construction work was executed in accordance with accepted architectural & engineering standard procedures.

(3.) BOARD OF APPEALS OR OTHER ASSIGNED BOARD OR COMMISSION -- Any person feeling himself aggrieved by any order or ruling of the Building Inspector may appeal from such ruling to the Board of Appeals within twenty (20) days after written notice of such ruling shall have been delivered to him. Such appeal is to be in writing, setting forth the order appealed from & the respects in which said person feeling himself aggrieved claims that said order on ruling is erroneous or illegal. Said notice of appeal shall be filed with the Clerk, who shall thereupon notify the Building Inspector of said appeal, & the appeal shall be heard at the next meeting of the Board of Appeals. The said Board of Appeals, after consideration thereof, shall affirm, reverse or modify said ruling as is just in the premises. The ruling or order of the Inspector shall be enforced until changed by said Board of Appeals.

SECTION 30.10 -- STOP WORK ORDER

Whenever the provisions of THIS CODE or of the plans approved there under are not complied with, a stop work order shall be served on the owner or his representative & a copy thereof shall be posted at the site of the construction. Such stop work order shall not be removed except by written notice of the Building Inspector after satisfactory evidence has been supplied that the violation has been corrected.

SECTION 30.11 -- CERTIFICATE OF OCCUPANCY

(1.) INSPECTIONS

(a.) The Building Inspector shall make a final inspection of all new buildings, additions & alterations. If no violations of this or any other ordinance can be found the Building Inspector may issue a certificate of occupancy, stating the purpose for which the building is to be used.

(b.) No building, nor part thereof, shall be occupied until such final inspection or certificate has been issued, nor shall any building be occupied in any manner which conflicts with the conditions set forth in the certificate of occupancy.

(2.) USE DISCONTINUED

(a.) Whenever any building or portion thereof is being used or occupied contrary to the provisions of THIS CODE, the building Inspector shall order such use or occupancy discontinued & the building, or portion thereof, vacated by notice served on any person using or causing such use or occupancy to be continued & such person shall vacate such building or portion thereof within ten (10) days after receipt of the notice or make the building, or portion thereof, comply with the requirements of THIS CODE.

(b.) Any building, structure or premises, or any part thereof, hereafter vacated or damaged by any cause whatsoever so as to jeopardize public safety or health, shall not hereafter be occupied or used under an existing certificate of occupancy or without the same, until an application has been filed & a new certificate of occupancy issued.

(3.) CHANGE -- It shall be unlawful to change the use of any building, structure, premises or part thereof, without first obtaining, from the Building Inspector, an approval of such change in the occupancy or use & a certificate of occupancy therefore.

(4.) HARDSHIP -- The Building Inspector shall have the authority & power to permit the occupancy of any building or structure in the municipality, prior to issuance of an occupancy certificate, in all such cases of hardship, as in his judgment & discretion, warrant occupancy before final stage of completion as set forth in THIS CODE. Before granting such permission, the Building Inspection shall first examine the premises & determine if it is safe & sanitary. The Building Inspector shall determine the time within which such building or structure can be completed. Such time should not exceed one hundred twenty (120) days.

## CHAPTER III. -- GARAGES & ACCESSORY BUILDINGS

SECTION 30.20 -- GENERAL REQUIREMENTS

(1.) DEFINITIONS

(a.) An attached private garage shall mean a private garage attached directly to the principal building, or attached by means of an enclosed or open breezeway, porch, terrace or vestibule, or a private garage so constructed as to form an integral part of the principal building.

(b.) A detached private garage shall mean a private garage entirely separated from the principal building.

(c.) Accessory buildings shall conform to all requirements of THIS CHAPTER.

(2.) LOCATIONS -- Detached garages shall be governed by the following unless otherwise provided for in appropriate codes.

(a.) Garages of wood frame construction shall be located not less than ten (10) feet from any residence building, except that such distance may be reduced to not less than five (5) feet when the adjacent wall is protected as required for attached garages in SPS 321.08(1). Such separations shall be measured as the perpendicular distance from the exterior dwelling wall to the closest exterior garage or accessory building wall.

(b.) Garages of masonry wall construction shall not be located less than five (5) feet from any residence building.

(3.) AREA -- All private detached garages shall be governed by the following unless otherwise provided for in appropriate zoning codes.

(a.) Masonry bearing wall, twelve hundred (1200) square feet, maximum.

(b.) Metal frame construction, seven hundred twenty (720) square feet, maximum.

(c.) Wood frame construction, seven hundred twenty (720) square feet, maximum.

(4.) FOUNDATIONS & FOOTINGS --Attached private garages shall be provided with the same type footings & foundations as required herein for the principal building. Concrete floors shall be not less than four (4) inches in thickness. Detached private garages may be built with a continuous floating slab of reinforced concrete not less than four (4) inches in thickness. Reinforcement shall be a minimum of number 10 six by six (6" X 6") inch wire mesh. The slab shall be provided with a thickened edge all around, eight (8) inches wide & eight (8) inches below the top of the slab. The thickened edge shall have two (2) #4 horizontal reinforcement bars placed at the center. The lower reinforcement bar shall be set two (2) inches above the bottom of the thickened edge & the upper reinforcement bar shall be set six (6) inches above the bottom of the thickened edge. Exterior wall curbs shall be provided not less than four (4) inches above the finished ground grade adjacent to the garage. Bolts three-eighths (3/8)

inches in diameter with nuts & washers attached, six (6) inches long, shall be embedded three (3) inches in the concrete curb of detached garages, eight (8) feet on centers.

(5.) FLOOR SURFACE -- The floor in all private garages shall be of concrete construction & sloped toward the exterior garage door or opening. No openings or pits in the floor shall be permitted, except for drainage.

(6.) CONSTRUCTION -- Private garages shall be constructed as follows:

(a.) Unless designed through structural analysis, load bearing foundation walls & partitions shall be constructed as per sections SPS 321.15-321.18.

(b.) Detached private garages of wood frame construction shall be constructed with the following requirements.

1. Studs may have a maximum spacing of twenty-four (24) inches on centers.

2. Diagonal corner bracing shall be installed on both walls at each corner. Diagonal corner bracing may be applied on the inside surface of studs.

3. Corner posts may consist of two (2) two by four (2 X 4) inch studs or a single four by four (4 X 4) inch stud.

4. Collar beams at the top plate & collar ties in the upper one third of the roof shall be installed with a maximum spacing of forty-eight (48) inches on center. Collar beams may be two by six (2 x 6) inch. Collar ties shall be at least two by four (2 x 4) inch for roof slopes less than four (4) inches per foot. A one by six (1 x 6) inch collar tie may be used for roof slopes four (4) inches per foot or greater.

5. Detached garage roofs shall be framed in accordance with the applicable requirements of section SPS 321.28.

(7.) HEATING, VENTILATING & AIR-CONDITIONING – The provisions of Chapter SPS 323 shall apply to the design, installation & construction of all heating, ventilating & air-conditioning systems installed in detached garages & accessory buildings.

# Amendments to the Wisconsin Uniform Building Code approved by the Building Inspectors Association of Southeastern Wisconsin on January 11, 2012 with an effective date of May 1, 2013

## Chapter IV. DECKS - Section 30.30

## Section 30.30 GENERAL REQUIREMENTS is hereby repealed and recreated to read as follows:

**Section 30.30 GENERAL REQUIREMENTS.** Decks shall be constructed in accordance with the 2010 American Forest & Paper Association, Inc. (AF&PA) Prescriptive Residential Wood Deck Construction Guide, Publication DCA-6 (http://www.awc.org/Publications/DCA/DCA6/DCA6-09.pdf), subject to the following changes or additions to or omissions from this guide.

(1) This is a requirement in addition to the disclaimer language at the bottom of the title page: **Where provisions contained herein are found to conflict with the provisions within the Wisconsin Uniform Dwelling Code, the provisions of the Wisconsin Uniform Dwelling Code shall prevail.**

(2) This is an exception to the Post Construction requirement section, page 7: **A column post not exceeding 6 feet in height may be a minimum of 4 inches by 4 inches provided the post-to-beam connection is approved by the building inspector having jurisdiction.**

(3) Substitute the following wording to the first sentence in the Guard Requirement section, page 15: **All decks greater than 24 inches above grade are required to have a guard.**

(4) This is a requirement in addition to the Guard Post Attachment Figure 24, page 16: **A guard post shall be installed on every outside corner of the deck where a guard is required.**

(5) Substitute the following wording to the Stair Guard Requirements Figure 30, page 18: **a) Stair guard is required for stairs with a total rise of greater than 24 inches, and b) Openings for required guards on side of stairs treads shall not allow a 4-inch-diameter sphere to pass through.**

## CHAPTER IV. -- DECKS

SECTION 30.30 GENERAL REQUIREMENTS

(1.) DEFINITIONS

(a.) Deck: Any structure which serves as a raised horizontal platform on floor constructed of wood or other materials, without enclosing walls or roof.

(b.) Attached Deck: Any deck which is physically connected to the principal building or accessory structure.

(c.) Detached Deck: Any deck which is <u>not</u> physically attached to the principal building or accessory structure.

(2.) SOIL & EXCAVATION REQUIREMENTS FOR DECK PIERS OR FOUNDATIONS

(a.) No pier shall be placed on soil with a bearing capacity of less than 2,000 lbs. per square foot unless the pad support is designed through structural analysis.

(b.) All organic material (roots, etc.) shall be cut off at the sidewalls of the borings or trench. All organic & loose material must be removed from the cavity area prior to pouring concrete.

(3.) DECKS PIERS, PADS & FOUNDATIONS

(a.) General footings, pads or piers shall be of adequate bearing area to safely distribute all live & dead loads to the supporting soil without exceeding the bearing capacity of the soil.

(b.) Type & size of concrete pads, piers or foundations.

1. Decks attached to principal buildings.

a. Concrete Pads - The minimum depth of a pad shall be 48" below grade. The minimum dimensions of this pad shall be 4" in depth & 8" in diameter.

b. Piers - The minimum depth of concrete piers shall be 48" below grade. The minimum dimension of this pier shall be 8" in diameter. (The concrete pier(s) shall extend a minimum of 6" above grade unless an approved mounting bracket is secured at the top surface of the pier(s)).

c. Direct burial wood posts shall be treated to the requirements of the American Wood Preserver's Association (AWPA) standards for direct soil contact. Post shall be a minimum of 4' below established grade.

(4.) FRAMING

(a.) General Requirements.

1. Materials. All wood framing used in deck construction shall be pressure treated against decay or shall be a species of wood that is naturally decay resistant or shall be protected from weather.

2. Design loading. Decks shall be designed for a minimum of a 40 pound per square foot loading.

3. See fastener schedule for nailing requirements. All fasteners & hangers shall be corrosion resistant to weather & the type of chemically treated wood they are in direct contact with.

(b.) Column Posts.

1. Column spacing. Column posts shall be spaced per "Table No. 2".

2. Column size.

a. All column posts not exceeding six feet (6 feet) in height shall be a minimum of four inches by four inches (4 X 4) nominal thickness.

b. All column posts exceeding six (6) feet in height shall be a minimum of six inches by six inches (6 X 6) nominal thickness.

3. Lateral support. Column posts shall be constructed in such a manner or mechanically attached to the deck foundation to resist lateral movement.

(c.) BEAMS

1. Beam Size -- All beams shall be sized per "Table No. 2".

a. Beams, except as otherwise noted in "Table No.2", SHALL BE A MINIMUM OF TWO (2), TWO (2) INCH THICK MEMBER OF ONE (1), FOUR (4) INCH THICK MEMBER. (I.E., 2 - 2X8 OR 1 - 4X8).

b. Beams may be spaced on each side of the post provided that blocking is installed a minimum of twenty four (24) inches.

2. Bearing. Beams bearing directly on the posts shall be attached by means of approved metal anchors or other approved methods.

3. Ledger boards. Ledger boards attached directly to the house or other structure may be used to replace a beam or beams. A single member of equal depth to the required size beam shall be used. The ledger board shall be attached with two (2) ½" bolts, (2) ½" lag bolts or equivalent fasteners, spaced no less than 16 inches on center, secured directly into

the building structure. Flashing shall be installed between the ledger & building structure.

4. Beams shall not be cantilevered more than twelve (12) inches past the column post.

(d.) JOISTS

1. Joist size. All deck joists shall be sized & spaced per "Table 2".

2. Bearing. Deck joists shall bear a minimum of one & one half (1-1/2) inches on the beam or ledger board. Joists fastened to the face of the beam or ledger shall be attached with approved metal hangers.

3. Bridging. Bridging shall be provided at intervals not exceeding eight (8) feet.

4. Overhanging of joists. Joists which are at right angles to the supporting beam shall not be cantilevered more than two (2) feet past the supporting beam, unless designed by structural analysis.

(e.) DECKING

1. Material. All decking material shall be a minimum of one & one quarter (1-1/4) inches thick, nominal thickness. One inch decking may be used provided that the joists are spaced no more than 16" o.c.

2. Decking Orientation.

   a. Decking shall be installed diagonally or at right angles to the joists.

   b. Decking shall be centered over joists with cuts made parallel to joists. Not more than two adjacent boards may break joints on the same joist except at ends & at openings.

(f.) GUARDRAILS & H&RAILS

1. Guardrails. All decks which are more than twenty four (24) inches above grade shall be protected with guardrails.

2. Handrails. Every stairway of more than three (3) risers shall be provided with at least one handrail. Handrails shall be provided on the open sides of stairways.

3. Guardrails & handrail detail.

   a. Handrails & guardrails shall be constructed of metal, decay resistant or pressure treated wood.

b. Height. Handrails shall be located at least thirty (30) inches, but not more than thirty-eight (38) inches, above the nosing of the treads. Guardrails shall be located at least thirty-six (36) inches above the surface of the deck.

c. Open railings. Open guardrails or handrails shall be provided with intermediate rails or an ornamental pattern to prevent the passage of a sphere with a diameter of four (4) inches or more.

d. Railing loads. Handrails & guardrails shall be designed & constructed to withstand a 200 pound load applied in any direction.

e. The clearance between a handrail & the wall surface shall be at least 1 ½ inches.

f. Projection. Handrails & associated trim may project into the required width of stairs & landings a maximum of 4 ½ inches on each side.

g. Size & configuration. Handrails shall be symmetrical about the vertical centerline to allow for equal wraparound of the thumb & fingers.

1. Handrails with a round or truncated round cross sectional gripping surface shall have a maximum whole diameter of 2 inches.

2. Handrails with a rectangular cross sectional gripping surface shall have a maximum perimeter of 6 ¼ inches with a maximum cross sectional dimension of 2 7/8 inches.

3. Handrails with other cross sections shall have a maximum cross sectional dimension of the gripping surface of 2 7/8 inches with a maximum linear gripping surface measurement of 6 ¼ inches & a minimum linear gripping surface of 4 inches.

(g.) STAIRWAY, TREADS & RISERS

1. Risers. Risers shall not exceed eight (8) inches in height measured from tread to tread.

2. Treads. Treads shall be at least nine (9) inches wide, measured horizontally from nose to nose.

3. Variation. There shall be no variation in uniformity exceeding 3/16 inch in the width of a tread or in the height of risers. For sloping grades at the bottom of a deck stairway, the riser height shall be measured at the center of the stair tread.

4. Stair stringers shall be supported in accordance to the same manner as used for the deck.

5. Stairways shall be at least 3 feet in width.

6. The triangular area formed by the tread, riser, & bottom rail or stringer shall have an opening size that prevents the through passage of a sphere with a diameter of 6 inches or larger.

(h.) ALTERNATIVE PROVISIONS & METHODS.

1. Wood Decks. Wood decks attached to the dwelling may be constructed to the Uniform Dwelling Code standards listed below.

   a. Excavation requirements of s. SPS 321.14
   b. Footing requirements of s. SPS 321.15
   c. Frost penetration requirements of s. SPS 321.16
   d. Load requirements of s. SPS 321.02
   e. Floor construction requirements of SPS 321.22
   f. Stair, handrail & guardrail requirements of s. SPS 321.04
   g. Decay protection requirements of s. SPS 321.10

2. New materials & methods shall comply with the provisions of Section 30.60.

3. Detached decks must:

   a. Concrete pads shall be provided at a uniform depth below grade with all loose or organic material moved from the pad area prior to placement of concrete. The pad shall have a minimum depth of 4" thick & 8" in diameter.

   b. Piers -- The minimum of 8" diameter concrete piers shall be at a uniform depth below grade.

   c. Direct burial wood posts shall be treated to the requirements of the American Wood Preserver's Association (AWPA) standards for direct soil contact.

   d. Ground contact framing shall be allowed for decks which are less than 24" above grade. All materials in direct contact with the soil shall be treated to the requirements of the American Wood Preservers' Association (AWPA) standards.

## CHAPTER V. -- SWIMMING POOL/SPA REQUIREMENTS

SECTION 30.40 GENERAL REQUIREMENTS

(1.) Type of Pools Requiring Permits

(a.) Above ground pools (except wading pools having a depth of less than two (2) feet & which are readily movable).

(b.) Temporary or permanent air inflatable pools with a sidewall height greater than two (2) feet above grade.

(c.) Inground Pools.

(d.) Public Pools -- All public pools constructed shall be built & maintained in accordance with the rules of the SPS 390.

(e.) Spas (outdoor).

(2.) General Pool Regulations

(a.) Location

1. No person, firm or corporation shall have a swimming pool or spa located in the front yard or side yard setback unless specifically allowed in the local zoning code.

2. Side & rear yard setbacks shall be a minimum of 10 feet from the property line or as regulated by the local zoning code.

3. Swimming pools shall not be located closer than four (4) feet to any wall, fence or structure.

4. Swimming pools shall be located from well & septic systems in accordance with the Wisconsin State Plumbing Code, Chapter SPS 383.

(b.) Access

1. A fence or other solid structure of not less than 3-1/2 feet in height shall completely enclose said premises &/or swimming pool. There shall be no opening in said fence or wall larger than six (6) inches square. All gates or doors opening through such enclosure shall be kept securely closed at all times while unattended & shall be equipped with a self-closing & self-latching device designed capable of keeping such door or gate securely closed. Latches shall be located at least three (3) feet above the ground, accessible deck or stairs.

2. A fence is not required around an above ground pool where the pool wall is at least 3-1/2 feet above grade for the full pool perimeter. The finished

grade shall be maintained for a minimum of 4 feet beyond the outside perimeter of the pool.

3. When not completely fenced, all ladders, steps, pool pump/filter equipment or other means of access to an above ground pool shall be removed &/or designed to prevent access when the pool is unattended.

4. Spas shall be made inaccessible by a locking safety cover or other approved safety barrier when not in use.

(c.) Swimming Pool Decks -- All decks shall be constructed in accordance with the Uniform Building Code. Decking shall be considered an integral part of the swimming pool & shall comply with the applicable setback dimensions per the local zoning code.

(d.) Drainage -- In no case shall any swimming pool be drained onto lands of property owners other than the owner of the swimming pool. Drainage from said lot shall be in accordance with any local zoning ordinance.

(e.) Lighting -- Lights shall be erected so as to eliminate direct rays & minimize reflected rays of light onto adjoining properties & roadways. Lighting installation shall be done in accordance with the State of Wisconsin Electrical Code.

(f) Electrical – All wiring for pools & spas shall be done in accordance with the Wisconsin Electrical Code &/or local code.

(g) Pools & spas shall be separated from overhead & underground electrical wiring shall be in accordance with the State of Wisconsin Electrical code &/or local code.

(4.) Application for Permit.

The following information is necessary:

(a.) Survey or accurate drawing of the property, IN DUPLICATE, showing all existing structures, proposed swimming pool or spa location, fencing if required, & overhead or underground electrical wiring.

1. Type of pool installation, above ground or inground.

2. Pool height above highest point of grade if above ground installations.

3. Type & height of fence, if proposed.

4. Type & support of decking, if proposed.

5. Overall size & locations of the above in regard to existing buildings & lot lines for property survey reference.

6. Any change in finished grade near pool.

7. County Health Department approval for properties using a private septic system, where applicable.

8. Site inspection letter from a local wiring utility.

(b.) Two (2) copies of brochure which shows the type, style, etc. of the pool or spa to be installed.

## CHAPTER VI. -- FOUNDATION REPAIR & DAMP PROOFING

30.50 FOUNDATION REPAIRS & DAMPPROOFING

(1.) Application for permit shall include a statement of the existing defects, & an analysis of the cause of those existing defects to ensure that all conditions responsible for foundation defects are corrected.

(2.) Plans &/or specifications must be submitted for approval prior to issuance of a permit.

(3.) Except as otherwise permitted by the Authority Having Jurisdiction, foundation repairs shall be performed in accordance to the Best Management Standards for Foundation Repair dated June 13, 2012.

## CHAPTER VII. -- ALTERATIONS & REMODELING FOR PRE-1980 ONE & TWO-FAMILY DWELLINGS

30.55 ALTERATIONS & REMODELING FOR PRE-1980 ONE & TWO-FAMILY DWELLINGS

**I. Purpose**

The purpose of this chapter is to provide uniform minimum construction regulations for alterations & remodeling of existing one & two-family dwellings built prior to June 1, 1980.

**II. Scope**

A. This chapter shall apply to all existing one & two-family dwellings constructed prior to June 1, 1980 for building code regulations & December 1, 1978 for energy code regulations.

B. The provisions of this chapter are not retroactive.

C. The Uniform Dwelling Code, SPS 320-325 is incorporated by reference & shall apply to all construction except as modified by this chapter.

D. These provisions shall not apply to any building repair as defined herein.

E. Energy calculations are not required for new additions to one & two-family dwellings constructed prior to December 1, 1978. Upon request by the Building Inspector, a recognized heating professional shall provide a written statement that the heating system is capable of maintaining the indoor design temperature during outdoor design conditions per SPS 322.07.

**III. Definitions**

**A. <u>Building, addition</u>**: New construction performed on a dwelling, which increases the outside dimensions of the dwelling.

**B. <u>Building, alteration/remodel</u>**: An enhancement, upgrade, substantial change or modification other than an addition, a repair or modifications to electrical, plumbing, heating, ventilating, air conditioning & other systems within a dwelling.

**C. <u>Building, existing</u>**: Any structure that is already constructed or one for which a legal permit has been issued prior to the adoption of this code.

D. **Building, new**: Any construction that results in the creation of a structure for the support, shelter or enclosure of persons, animals, chattel or movable property of any kind.

E. **Building, repair**: The act or process of restoring to original soundness, including redecorating, refinishing, nonstructural repairs or maintenance, or the replacement of existing fixtures, systems or equipment with the equivalent fixture, system or equipment.

F. **Building, structural repair**: The reconstruction or replacement of any load bearing component that has been damaged, deteriorated or is failing.

G. **Ceiling height**: The clear vertical distance from the finished floor to the finished ceiling. Any part of any room where the ceiling height is less than 5 feet, shall not be considered in computing the total floor area of the room for the purpose of determining the habitable occupancy thereof.

## IV. Permit Application

A. Any person desiring a building permit as required by this chapter shall file with the Building Inspector an application therefore in writing on a permit form to be furnished for that purpose.

B. Application shall show the use or occupancy of all parts of the building.

C. Application for a permit shall be accompanied by three (3) complete sets of plans &/or specifications. The plans shall consist of the following where applicable:

1. Floor plans: showing general layout & egress path for the remodeled area(s), the square footage, size & span of existing attic floor joists, location of lower floor bearing walls, area(s) that will have the ceiling raised (dormers), wall locations, window location including size of headers, door sizes & locations, location of smoke & carbon monoxide detectors, stairways, heating system or devices, & any related architectural features.

2. Elevations: showing the sizes, location & configuration of doors, windows & skylights; exterior wall covering material; roof design & exterior material; any architectural features relating to the dwelling's existing architectural style.

3. Cross-section: showing all construction details, framing, insulation, materials, interior finishes, ceiling heights & structural features.

D. The application, plans & specifications filed by an applicant for a permit shall be reviewed by the Building Inspector, & if found to be in conformity with the requirements of this chapter & all other laws or ordinances applicable thereto, the Building Inspector shall, upon receipt of the required fees issue a permit therefore.

E. When the Building Inspector issues the permit, all sets of plans & specifications shall be stamped "conditionally approved." One such approved set of plans & specifications shall be retained by the Building Inspector as a public record, & one such approved set of plans & specifications shall be returned to the applicant. One approved set shall be kept on such building or work site at all times during which the work authorized thereby is in progress & shall be open to inspection by public officials. Such approved plans & specifications shall not be changed, modified or altered without permission from the Building Inspector.

F. The contractor shall submit a copy of their valid Dwelling Contractor Financial Responsibility credential prior to permit issuance.

## V. Fees

A. Before issuance of a permit, the owner or their agent shall pay to the municipal treasury a permit fee. These fees shall be as established by the municipality.

B. Double fees: Upon failure to obtain a permit before work on a building has been started, except in emergency cases, the total fees shall be double the fees charged.

C. Reinspection fee: Where additional inspections are made necessary by reason of neglect in work found faulty, defective or incomplete at the time of inspection, or at the expiration of time permitted in an order of noncompliance, a reinspection fee may be charged.

## VI. Inspections

A. Rough inspection: to be made after the roof, all framing, fire-blocking & bracing is in place & all chimneys & vents are complete. No drywall or any insulation between the studs shall be applied to any building until the rough inspection, electrical inspection, plumbing & heating inspections have been made & the work approved.

B. Insulation inspection: to be made after all insulation has been installed, with vapor barrier in place & before any of the walls & ceilings are covered.

C. Final inspection: upon the completion of any building, structure, or construction for which a permit was issued & before the same is occupied or used, a final inspection shall be made by the Building Inspector, & until such building or structure is in compliance with all the requirements of this chapter & terms of the permit, no occupancy shall be permitted.

D. Written approval: no work shall be done on any part of the building or structure beyond the point indicated in each successive inspection without first obtaining the written approval of the Building Inspector. Such written approval shall be given only after an inspection shall have been made for each successive step in the construction as indicated by each of the inspections.

E. Inspection notice.

1. The applicant or authorized representative shall request inspections from the municipality or the registered UDC inspection agency enforcing this code.

2. Except as provided under subd. 3., construction may not proceed beyond the point of inspection, as described under par. F., 1. to 3. until the inspection has been completed.

3. Construction may proceed if the inspection has not been completed within 2 business days after notification is received or as otherwise agreed between the applicant & the municipality or registered UDC inspection agency.

F. Inspection types. The following sequence of inspections shall be performed for the purpose of determining if the work complies with this code:

1. Footing & foundation inspection. The excavation shall be inspected after the placement of forms, shoring & reinforcement, where required, & prior to the placement of footing materials. Where below-grade drain tiles, waterproofing or exterior insulation is required, the foundation shall be inspected prior to backfilling.

2. Rough inspection. A rough inspection shall be performed for each inspection category listed in subd. 2. a. through e. after the rough work is constructed but before it is concealed. All categories of work for rough inspections may be completed before the notice for inspection is

provided. The applicant may request one rough inspection or individual rough inspections. A separate fee may be charged for each individual inspection.

a. General construction, including framing.

b. Rough electrical.

c. Rough plumbing.

d. Rough heating, ventilating & air conditioning.

e. Basement drain tiles.

3. Insulation inspection. An inspection shall be made of the insulation & vapor retarder after they are installed but before they are concealed.

4. Final inspection.

## VII. Construction Requirements

A. Basement Conversion to Habitable Space.

1. Existing stairways shall conform to the following: (Note: A new, relocated or reconfigured stairway shall conform to the requirements of Section SPS 321.04.)

   a. Riser height shall be 8¼ inch maximum.

   b. Tread depth shall be 8½ inch minimum.

   c. Headroom shall be 72 inches minimum.

   d. Stair width shall be 34 inches minimum.

   e. Handrails & guardrails shall be installed in accordance with Section SPS 321.04(3). Exception: Existing handrails & guardrails do not require modifications unless the stairway is new, relocated or reconfigured. In such conditions, the handrails & guardrails shall conform to the requirements of Section SPS 321.04.)

   f. Stairway landings shall have minimum dimensions of 34" by 34".

2. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

3. Ceiling height: All habitable rooms shall have a minimum ceiling height of 6 feet 8 inches for a minimum of 50% of the floor area. Beams & ducts may not encroach more than 8 inches into ceiling area below the minimum ceiling height.

4. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have a battery back-up power.

5. Basement bedrooms shall be constructed as follows:

a. Doors shall be a minimum of 32 inches in width unless at least 50% of the bedroom doors in the dwelling are a minimum of 32 inches or have a minimum net clear opening width of 30 inches.

b. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

c. Exits: Either an egress window within each bedroom or two exits from the basement level common area shall be provided. An egress window & areaway shall be designed in accordance with SPS 321.03(6).

d. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have a battery back-up power.

B. Partially Finished Attic Conversion to Habitable Space, Second Floor Levels

1. Design floor load: All new areas shall meet 40 pounds per square foot live load plus dead load. If 50% or more of the existing habitable space is altered or remodeled, the existing floor shall also meet the minimum design live load of 40 pounds per square foot.

2. Stairways: Existing width, rise, run, landings, handrails, guardrails & headroom do not require modifications unless the stairway is new, relocated, or reconfigured. (Note: In such conditions, the handrails & guardrails shall conform to the requirements of Section SPS 321.04.)

3. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. If 50% or more of the existing habitable space is altered or remodeled, the light & ventilation requirements shall also apply to the existing space. Balanced mechanical ventilation may be used in lieu of natural ventilation.

4. Ceiling height: All habitable rooms shall have a minimum ceiling height of 6 feet 8 inches for a minimum of 50% of the floor area. If 50% or more of the existing habitable space is altered or remodeled, the ceiling height requirements shall also apply to the existing space.

5. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have a battery back-up power.

6. Insulation & windows shall comply with the following requirements:

   a. Walls shall have a minimum of R-13.

   b. Sloped ceilings shall have a minimum of R-19.

   c. Ceilings or attics shall have a minimum of R-30.

   d. Windows shall be double glazed or better.

7. Bedrooms shall be constructed as follows:

a. Doors shall be a minimum of 32 inches in width unless at least 50% of the bedroom doors in the dwelling are a minimum of 32 inches or have a minimum net clear opening width of 30 inches.

b. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

c. Exits: Either an egress window within each bedroom or two exits from the floor level common area shall be provided. An egress window shall be designed in accordance with SPS 321.03(6).

d. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have a battery back-up power.

C. Unfinished Attic Conversion to Habitable Space, Second Floor Levels

1. Design floor load: All new floor areas shall be designed in accordance with SPS 321.02. (40 pounds per square foot live load plus dead load).

2. Existing stairways shall conform to the following: (Note: A new, relocated or reconfigured stairway shall conform to the requirements of Section SPS 321.04.)

   a. Riser height shall be 8 ¼ inch maximum.

   b. Tread depth shall be 8 ½ inch minimum.

   c. Headroom shall be 72 inches minimum.

   d. Stair width shall be 34 inches minimum.

   e. Handrails & guardrails shall be installed in accordance with SPS 321.04(3).

   f. Stairway landings shall have minimum dimensions of 34" by 34".

3. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

4. Ceiling height: All habitable rooms shall be provided with a ceiling height in accordance with SPS 321.06.

5. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have battery back-up power.

6. Insulation & windows shall comply with the following requirements:

   a. Walls shall have a minimum of R-13.

   b. Sloped ceilings shall have a minimum of R-19.

c. Ceilings or attics shall have a minimum of R-30.

d. Windows shall be double glazed or better.

7. Bedrooms shall be constructed as follows:

a. Doors shall be a minimum of 32 inches in width unless at least 50% of the bedroom doors in the dwelling are a minimum of 32 inches or have a minimum net clear opening width of 30 inches.

b. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

c. Exits: Either an egress window within each bedroom or two exits from the floor level common area shall be provided. An egress window shall be designed in accordance with SPS 321.03(6).

d. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have battery back-up power.

D. Unfinished Attic Conversion to Habitable Space, Third Floor Levels

1. Design floor load: All new floor areas shall be designed in accordance with SPS 321.02. (40 pounds per square foot plus dead load).

2. Exits: Two interior stairways, spaced apart one-third of the longest diagonal dimension of the floor in plan view or 20 feet, from the third floor level to the second floor level are required.

3. Lofts shall comply with SPS 321.03(4).

4. Existing Stairways shall conform to the following: (Note: A new, relocated or reconfigured stairways shall conform to the requirements of Section SPS 321.04.)

a. Riser height shall be 8 ¼ inch maximum.

b. Tread depth shall be 8 ½ inch minimum.

c. Headroom shall be 72 inches minimum.

d. Stair width shall be 34 inches minimum.

e. Handrails & guardrails shall be installed in accordance with SPS 321.04(3).

f. Stairway landings shall have minimum dimensions of 34" by 34".

5. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

6. Ceiling height: Ceiling height in all habitable rooms shall be provided in accordance with SPS 321.06.

7. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have battery back-up power.

8. Insulation & windows shall comply with the following requirements:

   a. Walls shall have a minimum of R-13.

   b. Sloped ceilings shall have a minimum of R-19.

   c. Ceilings or attics shall have a minimum of R-30.

   d. Windows shall be double glazed or better.

9. Bedrooms shall be designed as follows:

   a. Doors shall be a minimum of 32 inches in width unless at least 50% of the bedroom doors in the dwelling are a minimum of 32 inches or have a minimum net clear opening width of 30 inches.

   b. Light & ventilation: All habitable rooms shall be provided with natural light & ventilation in accordance with SPS 321.05. Balanced mechanical ventilation may be used in lieu of natural ventilation.

   c. Exits: Two exits from the third floor level are required.

   d. Smoke & carbon monoxide detectors: Smoke & carbon monoxide detectors shall be installed in the remodeled areas in accordance with SPS 321.09 & 321.097. In addition to being wired to house current & interconnected, each smoke detector installed in the remodeled areas shall have battery back-up power.

## VIII. Remodeled Bathrooms

A. Newly constructed bathrooms shall be provided with a minimum 32" wide bathroom entrance door. Note: Only one (1) 32" bathroom door per dwelling unit is required provided it serves a full bathroom.

## IX. Fuel Fired Appliances

A. All fuel fired equipment shall be provided with combustion & ventilation air in accordance with SPS 323.06.

## CHAPTER VIII. -- MISCELLANEOUS & VIOLATIONS

SECTION 30.60 -- NEW MATERIALS & METHODS

ALTERNATE MATERIALS --No provision in THIS CODE is intended to prohibit or prevent the use of any alternate material or method of construction not specifically mentioned in THIS CODE. Approval of alternate materials or methods of construction shall be obtained from the municipality having jurisdiction. Requests for approval shall be accompanied by evidence showing that the alternate material or method of construction performs in a manner equal to the material or method required by THE CODE. The municipality having jurisdiction may require any claims made regarding the equivalent performance of alternate materials or method to be substantiated by test.

SECTION 30.61 -- TESTS

The municipality having jurisdiction may require that the materials, methods, systems, components or equipment be tested to determine the suitability for the intended use. The municipality having jurisdiction will accept results conducted by a recognized independent testing agency. The cost of testing shall be borne by the person requesting the approval.

(1.) The test method used to determine the performance shall be one that is a nationally recognized standard.

(2.) If no nationally recognized standard exists, past performance or recognized engineering analysis may be used to determine suitability.

(3.) Ungraded or used building materials may be used or reused as long as the material posses the essential properties necessary to achieve the level of performance required by THE CODE for the intended use. The municipality enforcing THIS CODE may require tests in accordance with this Section.

SECTION 30.62 -- IDENTIFICATION OF PRODUCTS

All materials shall be identified by the approved label, the grade mark, the trade mark or by other approved manufacturer's identification.

SECTION 30.63 -- INVALIDITY OF PART

If any section, subsection, paragraph, clause or provision of THIS CODE shall be adjudged invalid, such adjudication shall apply only to the provisions so adjudged & the rest of THIS CODE shall remain valid & effective.

SECTION 30.64 -- VIOLATIONS

It shall be unlawful for any person to erect, use, occupy or maintain any building or structure in violation of any provisions of THIS CODE, or to cause, permit or suffer any such violations to be committed. Any person violating any of the provisions of THIS CODE shall be subject to the penalty provisions as set forth in the Municipal Code. It shall be the responsibility of the offender to abate the violation as expeditiously as possible & each day that such violation is permitted to continue shall constitute a separate offense. If, in any action, a permit was

issued, it shall not constitute a defense nor shall any error, oversight or dereliction of duty on the part of the Building Inspector constitute a defense.

SECTION 30.65 -- FAILURE TO OBTAIN PERMIT

It shall be unlawful to commence work prior to obtaining a permit therefore. Double fees shall be charged if work is commenced prior to the issuance of a permit.

# WISCONSIN

# UNIFORM BUILDING CODE

# APPENDIX

**TABLE-1**

**WISCONSIN UNIFORM BUILDING CODE**
**SCHEDULE OF PERMIT FEES FOR 2013**

| | | |
|---|---|---|
| A. | Minimum permit fee for all permits | $50.00 |
| B. | Residence - One & Two family & Attached garages<br>Service Fee for Time Extension | $0.33/sq. ft.<br>1/24 of original fee |
| C. | Residences & Apartments, Three Family & over, Row Housing, Multiple Family Dwellings, Institutional | $0.33/sq. ft. |
| D. | Residences – Additions | $0.33/sq. ft. or fraction thereof |
| E. | Local Business, Office Buildings or Additions thereto | $0.31/sq. ft. or fraction thereof |
| F. | Manufacturing or Industrial (Office Areas to be included under E) | $0.27/sq. ft. or fraction thereof |
| G. | Permit to start construction of footings & foundations | $255.00 Multi-Family, Industrial & Commercial<br>$195.00 One & Two Families |
| H. | Agriculture Buildings, Detached Garages & Accessory Buildings | $0.27/sq. ft. or fraction thereof |
| I. | All other buildings, structures, alterations & repairs where square footage cannot be calculated | $11.25/$1,000.00 valuation |

| | | | |
|---|---|---|---|
| J. ** | Heating, Incinerator Units, Wood Burning Appliances, Energy Recovery Ventilators, Heat Pumps, & Split HVAC units | | $50.00/unit, up to & including 150,000 input BTU Units. Additional fee of $16.50/each 50,000 BTU or fraction thereof. $775.00 maximum/unit |
| K. | Commercial/Industrial Exhaust Hoods & Exhaust Systems | | $160.00/unit |
| L. | Heating & Air Conditioning Distribution Systems | | $1.85/100 sq. ft. of conditioned area with a $50.00 minimum |
| M. ** | Air Conditioning, Heat Pumps, & Split HVAC units | | $50.00/unit up to 3 tons or 36,000 BTU's. Additional fee of $16.50 each ton or 12,000 BTU's or fraction thereof. $775.00 maximum/unit |
| N. | Wrecking, Razing & Interior Demolition Fees may be waived at the discretion of the Building Inspector | | $75.00 minimum plus $0.10/sq. ft. with $775.00 maximum fee per building |
| O. | Moving buildings over public ways | | $205.00 plus $0.10/sq. ft. |
| P. | Re-inspection | | $50.00/inspection |
| Q. | Plan Examination: | | |
| | 1. | One & Two Family Residence | $225.00 |
| | 2. | Apartment, Three Family Residence, Row Housing, Multiple Family Buildings | $275.00 plus $25.00/unit |
| | 3 | Commercial/Industrial New<br><br>Commercial/Industrial Alterations & Additions | $275.00<br><br>$275.00 |
| | 4. | Additions to One & Two Family Dwellings | $75.00 |
| | 5. | Alterations to One & Two Family Dwellings | $50.00 |
| | 6. | Accessory Buildings, greater than 120 sq. ft. | $60.00 |

| | | | |
|---|---|---|---|
| | 7. | Decks, Swimming Pools | $35.00 |
| | 8. | Heating plans, lighting & energy calculations to heating plans submitted separately | $60.00 each |
| | 9. | Priority Plan Review - At the discretion of the Building inspector & depending upon workload of the Department, two (2) business day priority plan review may be provided at double the regular rate for plan review fees. Certified municipalities may also charge double the regular State plan review fees in addition to those listed above. Priority plan review shall not apply to submittals requiring review &/or approval by other governing agencies of the municipality. | |
| | 10. | Resubmission of previously approved plans | $50.00 |
| R. | Special Inspections & Reports | | $155.00 |
| S. | Wisconsin Uniform Building Permit Seal | | State Charge plus $25.00 |
| | NOTE 1 | Permits may be obtained individually or on one form in the categories of construction, heating, ventilation & air conditioning, electrical & plumbing. | |
| | NOTE 2 | An additional fee for plan review may be assessed at the time of application for renewal of the permit. | |
| T. | Occupancy Permits: | Residential | $50.00/unit, addition, alteration or accessory building over 120 sq. ft. |
| | | Commercial/Industrial New, Alterations & Additions | $195.00 |
| | | Temporary Occupancy Permits (6 mo. or less) | $80.00 |
| U. | Pools - In Ground/Above Ground/Spas | | $11.25/$1,000.00 valuation<br>$50.00 minimum |
| V. | Decks & Sheds | | $50.00 |
| W. | Erosion Control Fees: | | |
| | 1. | One & Two Family Lots | $155.00/Lot |
| | 2. | Multi-Family Units | $185.00/Bldg. plus $5/1,000.00 sq. ft. of disturbed lot area with a $2,050.00 maximum |

| | | | |
|---|---|---|---|
| | 3. | Commercial Lots | $185.00/Bldg. plus $5/1,000.00 sq. ft. of disturbed lot area with a $2,050.00 maximum |
| | 4. | Industrial Lots | $185.00/Bldg. plus $5/1,000.00 sq. ft. of disturbed lot area with a $2,050.00 maximum |
| | 5. | Institutional Lots | $185.00/Bldg. plus $5/1,000.00 sq. ft. of disturbed lot area with a $2,050.00 maximum |
| | 6. | Other | $50.00 minimum |
| X. | Reroofing, residing & trim: | | |
| | 1. | Residential | $50.00 |
| | 2. | Commercial | $11.25/$1,000.00 valuation with a $255.00 maximum/building |
| Y. | Other fees charged to the Municipality from other government entities for reviewing plans or permits. Fees charged are required to be paid at the time of application. | | |
| Z. | Failure to obtain permit before work commences | | Double fees - 1st offense<br>Triple fees – Subsequent Offenses |
| aa. | Failure to call for required inspection(s) | | $100.00/inspection<br>Double fees – 2nd offense<br>Triple fees – Subsequent Offenses |
| ab. | Work not ready at time of scheduled inspection | | $100.00 |
| NOTE | The State fee schedule for Commercial buildings (SPS 5) projects may be charged in lieu of or in addition to this fee schedule at the Municipality's discretion. | | |
| NOTE | Gross square footage calculations are based on exterior dimensions, including garage & each finished floor level. Unfinished basements or portions thereof are not included. | | |

| | |
|---|---|
| NOTE | In determining costs, all construction shall be included with the exception of heating, air conditioning, electrical or plumbing work. |
| NOTE | Check with local municipality regarding fee schedule. |
| NOTE: | All fee categories shall be rounded up to the next full dollar amount. |
| NOTE | ** J & M fees for both heating & air conditioning are applicable. |

The recommended approval of amendments, code changes, products, systems or quality control agencies by the Code Committees & the Wisconsin Uniform Code Associations does not constitute an approval or acceptance by any local community. Such acceptance is a function of local government administered by the designated local officials without the necessity of submitting further data because it is supported by factual reports describing the nature & use of the product or system & its performance under designated standard tests by recognized testing agencies.

# Table 2 (Treated Lumber)

JOIST LENGTH

| | | 6' | 7' | 8' | 9' | 10' | 11' | 12' | 13' | 14' | 15' | 16' |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 1 – 2x6 | 1 – 2x6<br>1 – 2x8 | 1 – 2x6<br>1 – 2x8 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x10<br>1 – 2x12 | 1 – 2x10 | 1 – 2x10<br>1 – 2x12 | 1 – 2x12 |
| 5' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 1 – 2x6 | 2 – 2x6<br>1 – 2x8 | 2 – 2x6<br>1 – 2x8 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x8<br>1 – 2x10 | 1 – 2x10<br>1 – 2x12 | 1 – 2x10 | 1 – 2x10<br>1 – 2x12 | 1 – 2x12 |
| 6' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 2 – 2x6 | 2 – 2x6<br>1 – 2x8 | 2 – 2x6<br>2 – 2x8 | 2 – 2x8<br>1 – 2x10 | 2 – 2x8<br>1 – 2x10 | 2 – 2x8<br>1 – 2x10 | 2 – 2x8<br>1 – 2x10 | 2 – 2x10<br>1 – 2x12 | 2 - 2x10<br>1 – 2x12 | 2 – 2x10<br>1 – 2x12 | 2 – 2x10<br>1 – 2x12 |
| 7' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 2 – 2x6 | 3 – 2x6<br>2 – 2x8 | 3 – 2x6<br>2 – 2x8 | 2 – 2x8<br>2 – 2x10 | 2 – 2x8<br>2 – 2x10 | 2 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 2 – 2x10<br>1 – 2x12 | 2 - 2x10<br>2 – 2x12 | 2 - 2x10<br>2 – 2x12 | 2 - 2x10<br>2 – 2x12 |
| 8' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 3 – 2x6<br>2 – 2x8 | 3 – 2x6<br>2 – 2x8 | 3 – 2x6<br>2 – 2x8 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 2 – 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 |
| 9' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 3 – 2x6<br>2 – 2x8 | 4 – 2x6<br>3 – 2x8 | 4 – 2x6<br>3 – 2x8 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 4 – 2x8<br>3 – 2x10 | 3 - 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 | 3 - 2x10<br>2 – 2x12 |
| 10' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 4 – 2x6<br>3 – 2x8 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 4 – 2x8<br>3 – 2x10 | 4 – 2x8<br>3 – 2x10 | 4 – 2x8<br>3 – 2x10 | 3 – 2x10<br>2 – 2x12 | 3 - 2x10<br>3 – 2x12 | 4 - 2x10<br>3 – 2x12 | 4 - 2x10<br>3 – 2x12 |
| 11' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 3 – 2x8<br>2 – 2x10 | 3 – 2x8<br>2 – 2x10 | 4 – 2x8<br>3 – 2x10 | 4 – 2x8<br>3 – 2x10 | 3 – 2x10<br>2 – 2x12 | 3 – 2x10<br>3 – 2x12 | 3 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 |
| 12' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 3 – 2x8<br>2 – 2x10 | 4 – 2x8<br>3 – 2x10 | 4 – 2x8<br>3 – 2x10 | 3 – 2x10<br>2 – 2x12 | 3 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 3 – 2x12 | 3 – 2x12 | 3 – 2x12 |
| 13' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 3 – 2x8<br>3 – 2x10 | 4 – 2x8<br>3 – 2x10 | 3 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 3 – 2x10 | 3 – 2x12 | 4 – 2x12 | 4 – 2x12 | 4 – 2x12 |
| 14' | Joist Size | 2x6 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x6 16" OC<br>2x8 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 16" OC<br>2x10 24" OC | 2x8 12" OC<br>2x10 16" OC | 2x10 16" OC<br>2x12 24" OC | 2x10 16" OC | 2x10 12" OC<br>2x12 16" OC | 2x12 16" OC |
| | Beam Size | 4 – 2x8<br>3 – 2x10 | 3 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 4 – 2x10<br>3 – 2x12 | 3 – 2x12 | 4 – 2x12 | 4 – 2x12 | 4 – 2x12 | ENG. BEAM REQUIRED | ENG. BEAM REQUIRED |