

to reflect renumbering or relocation in the respective code have not been included in the attachments in attempt to keep the attachments from being cumbersome. There is information included pertaining to minor modifications to some existing amendments and additional amendments the Building Official and Fire Official would like considered for the respective codes those individuals oversee. Council can recommend for or against amending or modify an amendment as it sees fit. The Building Official is recommending Town Council not adopt the 2015 International Energy Conservation Code or the Energy provisions in the 2015 International Residential Code. Further explanation is below.

STAKEHOLDER ANALYSIS

Adoption of the building and fire codes including designation of the code editions and approving amendments to those codes is the responsibility of Town Council. Individuals and businesses within the Town of Jackson and others outside the community involved with the design and construction of the built environment will be affected by the update to the 2015 building and fire codes.

FISCAL IMPACT

Fiscal impact to the TOJ associated with updating to the new code editions is minimal. The building and planning department typically spends \$1000 on code books and approximately \$1200 on code commentaries.

STAFF IMPACT

The Building Department and JH Fire/EMS have invested considerable time in assessing the new building and fire codes under consideration and in preparation for proposal of code adoption.

LEGAL ISSUES

The TOJ Legal Department will prepare ordinances should Council move to adopt the 2015 Codes.

ATTACHMENTS

Significant Changes 2012 to 2015 International Codes.

Purpose and policy language for testing and certification of automatic fire sprinkler installers and designers.

RECOMMENDATION

The Building Official recommends Town Council adopt, by ordinance, the 2015 Editions of the International Building, Fire, Wildland Urban Interface, Mechanical, Residential, Plumbing, and Fuel Gas Codes with amendments recommended by the Building Official and Fire Official. For the International Building, Existing Building, Fire, Mechanical, and Fuel Gas Codes adopted by the State, Town Council may only amend to more restrictive requirements. For codes adopted voluntarily, Town Council may amend as they see fit.

The Building Official recommends that Council not adopt the 2015 Energy Code. It is recommended Council allow continued use of the 2012 International Energy Code and the energy provisions in the 2012 International Residential Code until such time as the Building Official can sufficiently investigate the full impact of moving from the 2012 to the 2015 editions of those codes. At that time, the Building Official will come back before Council with additional information and a recommendation to adopt the 2015 editions and provisions or retain the 2012s.

In addition and on behalf of the design community, the Building Official also recommends a grace period until January 1, 2017 during which building plans designed for compliance with the 2012 or 2015 International Codes can be accepted.

The TOJ Board of Examiners (BOE) with oversight of the Contractor Licensing Program is proposing to amend the Contractor Licensing Ordinance to define the testing and certification requirements for Automatic Fire

Sprinkler System Installers and Designers. Currently, the ordinance does not specify testing or certifications. The language in the ordinance simply states “Masters shall pass an examination as required by the Town of Jackson.” The Town’s licensing program for other trades, except electrical contractors, utilizes Wyoming Association of Municipalities testing based on the International Code Council certification program for specific license classifications when a WAM/ICC test is available. WAM has recently added a test for installers of water based automatic fire sprinkler systems. The National Institute for Certification in Engineering Technologies (NICET) has levels of certification for designers of such system. The BOE recommends the WAM/ICC testing and certification for installers of fire sprinkler systems and NICET certification level III or IV for persons responsible for the design of automatic fire sprinkler systems.

SUGGESTED MOTION

Item #1: I move to direct Staff to prepare Ordinances that provide for the adoption as currently amended or as directed by Council of the 2015 International Building, Fire, Wildland Urban Interface, Mechanical, Plumbing, Fuel Gas Codes and Residential Code minus energy provisions and to provide for a grace period until January 1, 2017 wherein either the 2012 or 2015 International Codes as amended may be accepted for construction permit review and issuance.

Item #2: I move to direct staff to prepare Ordinances to amend the Contractor Licensing Program so as to specify testing and certification requirements for automatic fire sprinkler system installers and designers.

Significant Changes 2012 to 2015 Building Codes

Building Code: (For Residential Buildings see the International Residential Code.)

Private garages are now limited to a maximum of 1000 sq.ft. though the code allows larger buildings containing Group U (Utility) parking if the individual parking garages are separated by a minimum 1-hour fire resistant construction. Ceiling height in this use is reduced to 7 feet.

Requirement for a type of fire damper defined as a “Corridor Damper” in a fire rated ceiling of a fire rated exit or exit access corridor. Under some conditions corridor dampers are now required. Cost increase for corridor damper unknown.

An Automatic Fire Sprinkler System is no longer allowed as substitution for 1-hour fire rated construction. Example: A building sized such or for other reason requiring Type VA, combustibile, 1-hour protected construction cannot be Type VB – unprotected construction based on the addition of an otherwise non-required sprinkler system.

Buildings protected by NFPA 13R automatic fire sprinkler systems (systems often used in residential only buildings up to four stories in height such as apartment and some hotels) where the building design includes open-ended corridors shall have the corridors sprinklered. These exit paths are no longer exempt from such protection.

Limited area fire sprinkler systems have been reduced to a maximum of six sprinkler heads from the previous 20. These are systems used to protect specific fire hazards in buildings which would otherwise not require an automatic fire sprinkler system.

Carbon Monoxide Detection in Classrooms of Educational Occupancies is now required under most conditions. There are limited exceptions.

Aisle Width for exiting through occupancies including but not limited to those containing office furniture such as cubicles and desks, merchandising arrays in retails and seating layouts in some assembly uses has been better addressed and is more in line with requirements for corridors.

Occupant Load calculation has been decreased for new street level Mercantile Occupancies. Stores will now be assessed at one person per 60 square feet versus the previous one per 30 square feet. One per 60 sq.ft. has been allowed for basement and upper floors but occupant content calculation will now be consistent throughout. Impact will be slightly larger stores before a minimum of two means of egress are required.

A Handicap Accessible Lavatory shall be available in the common area of a multi- fixture restroom. The only HC accessible lav cannot be in the HC stall.

Handicap Accessibility has been better defined and requirement for such now includes most activities at Recreational and Sports Facilities.

Occupiable Roofs are now defined and design loads for areas/spaces on those roofs are better determined depending on the use of a specific portions of the roof.

Buildings containing occupiable roofs with a potential occupant content of more than 100 persons must have the levels between the roof and exit discharge protected by an automatic fire sprinkler system. This means a roof of more than 700 square feet may trigger the sprinkler requirement even in buildings of less than 5000 sq.ft. not otherwise required to be protected.

Roof Loadings for Photovoltaic Systems and Panels is now clearly indicated. In addition Photovoltaic Panels and Modules installed as an independent structure are addressed. Seismic design requirements specific to Ballasted Photovoltaic Panel Systems are now included.

Special Inspections have been added for items such as specific structural steel elements and steel decking, open web steel joists and girders, specific concrete not previously required and elements

associated with and portions of wind-force-resisting framing and panels and diaphragms. In addition, portions and elements associated with Seismic resistance require special inspections.

Residential Code:

Accessory Structures-Changed from “A structure not greater than 3000 square feet” to “A structure that is accessory to and incidental to that of the dwelling(s) and that is located on the same lot.” This will allow unlimited sized Accessory Structures on a lot, noting that planning ordinances will limit them.

Wind Design-Wind Design will change from 90 mph 3 second gust to 115 mph. This will mirror the IBC, which changed in the 2012 IBC.

Townhouses-Changed the fire-resistance-rated wall from 1 hr. to 2hr. in non-sprinkled buildings.

Minimum Area-Removed the requirement of needing one habitable room of at least 120 sq. ft. and changed it to “habitable rooms shall have a floor area not less than 70 sq. ft.”

Glazing Adjacent to Doors-Changes and clarifies the required locations of safety glazing by doors.

Glazing and Wet Surfaces-Added showers, saunas and steam rooms to the hazardous locations that were in the existing code.

Glazing Adjacent to the Bottom Stair Landing-Clarifies the existing safety glazing requirements at the bottom of stairways.

Guardrail Height-Deleted the requirement of having the height be measured from adjacent fixed seating and use the measurement from the adjacent walking surface.

Smoke Detectors-Clarifies locations of installation of smoke detectors and eliminates the requirement of having a smoke detection system monitored by an outside agency.

Carbon Monoxide Alarms-Requires main power to be supplied by the building with battery backup. Requires carbon monoxide detectors in bedrooms that have fueled - fired appliances.

Dryer Exhaust Booster Fans- They are now a recognized appliance that can be used to increase the length of a dryer can vent.

Mechanical Code: (For Residential Buildings see the International Residential Code.)

Manicure and pedicure stations now require dedicated source capture exhaust systems due to the hazards associated with the chemicals used in each treatment. The flow rates of the systems and other requirements are better specified in the new code.

Dryer Exhaust Duct Power Ventilators - Standards and specification for and requirements regulating installation of these devices have been placed in the code.

Multiple fire areas in a building shall be served by a independent return air systems fully ducted to the air-handler. Previously, the code did not specify that adjacent fire area plenums could not be connected by air-transfer opening such as transfer grills. While the supply air required a ducted system return air was not regulated per se. This was added to ensure compartmentalization of the individual fire areas to limit fire spread.

Plenums shall be constructed of non-combustible materials that meet a Class I, 25/50 flame spread and smoke development indices. This will primarily affect buildings of combustible construction as plenums in those building can no longer have the plenums lined of materials approved for the construction type. This would not affect buildings of non-combustible construction. Example: No wood exposed in plenums.

Plumbing Code: (For Residential Buildings see the International Residential Code.)

Public Toilet Facilities shall not be required in structures and tenant spaces intended for quick transactions such as takeout-only food facilities and drop off/pick up establishments such as dry cleaners when such places have a customer access area of 300 sq.ft. or less.

Location of public toilet facilities shall be indicated by signage at the main entrance to a building or tenant space.

Plumbing fixtures such as tub/showers and shower only fixtures when installed shall be provided with smooth, non-absorbent waterproof and corrosion resistant wall covering material up to a minimum height of 70-inches above the fixture drain. This clarifies where the measurement originates.

Whirlpool Bathtubs must now comply with Standard ASME A112.19.7/CSA B45 and shall be listed and labeled in accordance with UL 1795. This sets requirements for an electrical appliance utilizing a system which conveys water or a liquid. This is a life safety application.

Requirement for energy recovery unit(s) depends on amount of time a unit is required to operate based on the volume (%) of outdoor air at full design airflow rate. Tables C403.2.7

Replacement air for Commercial Kitchen Exhaust Systems is more thoroughly regulated when provided as a portion of the typical conditioned air supply to the space containing the exhaust hood. C403.2.8

Insulation value for heated water piping from water heater to the termination of the heated water supply system pipe has been increased per C403.2.10

Fuel Gas: Changes will be of interest only to those in the particular trades associated with this code. Primarily, the changes are due to developments of new materials and equipment.

Energy Code: (For Residential Buildings see the International Residential Code.)

Substitute air curtains for vestibules under specific conditions. C402.5.7

Supply and Return duct/plenum insulation increased from R-8 to R-12 in our climate zone. C403.2.3

A new building thermal envelop compliance path allows trade offs for individual components and assemblies in commercial buildings provided the overall building heat loss is not greater than a typical code compliant design. C402.1.5

Rooms containing fuel-fired appliances and their combustion air openings must be isolated from the remainder of the building in accordance with the building thermal envelop provisions of the code. This insulates rooms serving as combustion air sources/plenums from other portions of the building. Rooms shall be sealed and insulated. C402.5.3

**Purpose and policy language
for Clarification of Automatic Fire Sprinkler
Designer and Installer Certificate of Qualification**

To assure verifiable competency for the design and installation of automatic fire sprinkler systems in the Town of Jackson (TOJ) and Teton County, Wyoming the building official for the TOJ recommends that the Board of Examiners adopt a policy clearly indicating the minimum certification(s) and qualifications for individuals and companies contracting to design and install such systems.

Purpose of the policy is to clearly describe the qualifications and/or certificates necessary for obtaining a Master certification of qualification card for Automatic Fire Sprinkler Installer. The Master qualifies a company to be licensed as a fire sprinkler contractor in the Town of Jackson Contractor Licensing Program. In addition, the policy describes the qualification in automatic fire sprinkler system design necessary for a person, firm, corporation or other organization to obtain the contractor's license. Pertinent sections from the TOJ Municipal Code:

Section 15.36.050 (Certificates of Qualifications Required) of the Municipal Code of the Town of Jackson:

15.36.050 Certificates of Qualification Required.

- A. Certificates of qualification shall be required of individuals for all types of work involving skills as specified and classified in this section and as otherwise provided in Section 15.36.040 B. In lieu of a Town of Jackson Certificate of Qualification, Masters, journeyman, and apprentices in the electrical trade shall be certified by the State of Wyoming. While engaged in a building or trade activity, the Certificate of Qualification shall be in the possession of the individual.
 - B. The Board of Examiners shall determine that this requirement is met by examining each application for such certificates. All other applicants will be required to obtain their certificate pursuant to this ordinance.
 - C. Examining Procedure. The Town shall use the Wyoming Association of Municipalities Wyoming Trades Certification Program as a means of determining the qualifications of applicants for those certificates that are covered by said program.
 - J. Classifications - Experience Required.
13. Automatic Fire Sprinkler Installer – Masters shall pass an examination as required by the Town of Jackson.

As indicated in the Municipal Code, when available the testing and certification program of the Wyoming Association of Municipalities shall be utilized. The WAM program has a certification awarded upon receiving a passing grade for the Wyoming Fire Suppression Installer/Worker. The building official for the TOJ believes that certification sufficient for verifying an individual's competency to install such system.

In regards to the verification of competency for the design of automatic fire sprinkler systems, the WAM program does not offer certification for that discipline. The national recognized standard in qualifying individuals for the design of fire suppression system is the testing and certification program offered by the National Institute of Certification in Engineering Technologies (NICET). Specific levels of NICET certification are typically set by State Statute or in local ordinance to assure minimum competency with most regulating authorities requiring a minimum NICET level 3 or 4 certification for designers. The TOJ Building Official is proposing the following policy statement be adopted by the TOJ Board of Examiners to satisfy the Municipal Code requirement for the qualification of installers and designers of Automatic Fire Suppression Systems.

**A Town of Jackson Policy setting standards for individuals applying for
Certificate of Qualification Classification of Automatic Fire Sprinkler Installer
and companies applying to be licensed as Automatic Fire Sprinkler Contractors**

The Town of Jackson Board of Examiners having authority to set policy for the application of TOJ Municipal Code Chapter 15.36 Contractor Licensing, a portion of which is to establish the minimum certification and licensing requirements of individuals and companies doing work requiring building permits in the Town of Jackson and Teton County, Wyoming, has determine the following:

An individual making application for the Certificate of Qualification Card for Automatic Fire Sprinkler Installer shall pass the Wyoming Fire Suppression Installer/Worker examination of the Wyoming Association of Municipalities testing program. In lieu of acquiring the WAM certification, an individual may make application and appear before the Board of Examiners to request approval for a Certificate of Qualification based on verifiable work experience and education. Each individual qualifying as a Master for a Fire Sprinkler Contractor shall hold such certification.

A person, firm, corporation or other organization making application to be licensed as a Fire Sprinkler Contractor in the TOJ Contractor Licensing Program shall have a principle/owner, employee or individual under contract who has certification current with the National Institute of Certification in Engineering Technologies (NICET) as a minimum **Level 3 Water-Based Systems Layout Standard Model/CBT Application** certification for plans preparation and hydraulics and water systems for automatic fire suppressions systems. The persons holding the NICET certification shall be responsible for the design of the automatic fire sprinkler system and shall affix their name and certification number to the construction documents, plans, specifications and calculations submitted to the TOJ Building and Fire Departments for the system(s).