Maricopa County Local Additions & Addenda

Maricopa County Planning and Development Department 501 N. $44^{\rm th}$ St. Phoenix, AZ 85008

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Chapter 1 – Purpose & Title

SECTION 101. PURPOSE

The purpose of this document is to provide all local addenda, amendments, and additions to the adopted national building codes in one location.

SECTION 102. TITLE

This document shall be referred to and known as "Local Additions & Addenda".

SECTION 103. SEPARABILITY

If any section, subsection, sentence clause, phrase or portion of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not effect the validity of the remaining portions thereof.

SECTION 104. AMENDMENT

This document may be amended from time to time. It may be amended by simple motion of the Board of Supervisors, provided all state required legal advertising for amending a Building Code has been satisfied. Staff may correct typographical errors and/or reformat this document without being considered an amendment.

SECTION 105. REVOCATION

This document shall abolish, replace, and/or supercede any previous amendments, changes or additions to the national codes previously approved by Maricopa County.

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SECTION 201. PURPOSE

The purpose of this Chapter is to provide all local changes to the adopted national building codes that relate to the administration of those codes in one location.

SECTION 202. VIOLATION & PENALTY (Reserved)

SECTION 203. BUILDING CODE ADVISORY BOARD (Reserved)

SECTION 204. ORGANIZATION & ENFORCEMENT

Code Enforcement Agency

The Code Enforcement Agency created under the building code shall be defined in Maricopa County as the Planning and Development Department. This Planning and Development Department is charged by the Board of Supervisors to implement the building code and other pertinent laws, ordinances and/or regulations through the County's One Stop Shop Program.

Building Official

The Building Official shall be the Director of the Planning and Development Department (or his/her duly authorized representatives), who is charged with the administration and enforcement of the building code and Building Safety Ordinance.

General

Wherever the building code refers to the intent, purpose, implementation, inspection, enforcement, regulation, issuance of documents, compliance or other similar activity related to "this code", the phrase for purposed of implementing the "One Stop Shop Program" shall mean "this code or other pertinent laws, ordinances, and/or regulations implemented through the Code Enforcement Agency."

SECTION 205. PERMITS

Building Permits: A building permit shall not be required for a detached non-habitable accessory building that is single story and no greater than 200 square feet in floor area, provided such building does not include plumbing, electrical, or mechanical services or equipment. A building permit shall not be required to replace an existing water heater provided the work is done in accordance with manufacturer's specifications.

Permit Expiration: A permit may be renewed within one year of expiration provided that no change in ownership or engineer/architect of record has occurred. Renewal after expiration for

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more than one year shall not be permitted. Any such permit shall be deemed to be revoked and a new permit must be issued.

The design and construction of structures located within the unincorporated areas of Maricopa County shall comport to the codes in effect at the time of permit application, provided the specific permit remains valid, regardless of whether or not the County adopts subsequent codes. When approved by the Building Official, utility-scale solar generating facilities in which permit applications have been submitted, the design and construction may continue to utilize the codes in effect at the time of initial permit application, regardless of the number of permits required to complete the project, provided that 1) all construction is covered by an issued permit, 2) any permits issued for construction remain valid, and 3) continuous construction takes place until the facility is commissioned for commercial service and the facility receives final inspection. Once the above conditions have been met, subsequent construction activity shall comply with the codes in effect at the time of the subsequent permit applications. Further, should a permit lapse, the work contemplated by the permit shall be subject to a new permit application and shall comport to the codes in effect at the time the new permit application is submitted. For purposes of this section, the term "Utility-Scale" shall be as defined by the Maricopa County Zoning Ordinance.

Temporary Event Permit Exemption: Structures erected pursuant to an approved Temporary Use Permit shall not require a building permit if standing for a period not to exceed 96 contiguous hours. The responsible party shall provide documentation, as specified in the Temporary Use Permit that said structures were erected and maintained subject to all applicable building safety codes and manufacturer's specifications. The documentation shall be provided to the Department within two working days following the end of the special event to be filed with the Temporary Use Permit. Failure to provide the required documents will render the Temporary Use Permit null and void and constitute a zoning violation in accordance with Chapter 15 of the Maricopa County Zoning Ordinance.

Building Permit Exemption: A building permit shall not be required for a building or structure that was existing, or any use of land that was lawfully existing, as of January 1, 2000 or as of the effective date of subsequent amendments to this regulation provided there are no visible signs of defects or unsafe conditions. When verification is required by the Building Official a Certificate of Observable Compliance from a third party Registered Architect or Structural Engineer must be submitted.

A building permit shall not be required for a roadway gate within a private road easement. However, a building permit shall be required for gates within private street tracts of a platted subdivision. A Maricopa County Department of Transportation (MCDOT) permit shall be required for gates within public rights-of-way.

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SECTION 206. INSPECTIONS

Pre-Permit Inspection: A pre-permit inspection may be necessary and shall be the responsibility of the permit holder to post the property in a manner approved by the Building Official.

Permit Holder Responsibilities: It shall be the responsibility of the permit holder to:

- 1. Call for an inspection.
- 2. Stake property corners.
- 3. Designate property lines prior to the inspection of any primary use.
- 4. Post the inspection card.
- 5. Provide a copy of the approved plans on the site.
- 6. Provide access to the site.
- 7. Have someone at the site during the inspection.

Failure to complete the above shall result in no inspection at the time and an assessment of a re-inspection fee. A survey of the lot may be required by the Building Official to verify that the building/structure is located in accordance with the approved plans.

Partial Inspections: Partial inspections may be requested and conducted when necessary due to common construction practices. If a partial inspection is approved, documentation shall be maintained during construction that identifies what segments of work have obtained what types of partial inspection approval.

Re-inspections: Re-inspection fees shall apply when:

- 1. Property lines have not been designated as required.
- 2. The inspection card is not posted or available on the work site.
- 3. Approved plans are not readily available to the inspector on the site.
- 4. There is no access on the date for which the inspection is requested.
- 5. Work is not ready for inspection.
- 6. Work has been covered.
- 7. Late cancellation.
- 8. There is a deviation from plans significant enough to require approval of revised plans.

To obtain a re-inspection, the applicant shall follow the same procedures required for an inspection after paying a re-inspection fee.

SECTION 207. CERTIFICATE OF OCCUPANCY

The purpose of a Certificate of Occupancy is to insure that all department requirements have been met. A Certificate of Occupancy is required for all permits except those issued over the counter.

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Temporary Certificate: A Temporary Certificate of Occupancy may be issued with the concurrence of all impacted departments and when appropriate fees are paid. Bonding, if required, shall be provided in accordance with the direction of the Building Official prior to issuance of a Temporary Certificate.

Permanent Utility Authorization: Permanent utility approval shall not be authorized until after a permanent Certificate of Occupancy has been issued. Said authorization to the utility company shall include a copy of the Certificate of Occupancy or letter of approval.

SECTION 208. FEES

Determination of Value: Values shall be determined through the use of the most current published Building Valuation data in the publication "Building Standards" as modified for Arizona. The Building Official may develop similar increases for unpublished valuations.

Additional Value Determinations:

Walls and fences:

Retaining walls	Per lineal foot
0-2'	\$15
2-4'	\$25
4-6'	\$42
6' or more	\$86
Chain link	\$ 6
CMU	
4" 6' or less	\$14
4" more than 6'	\$21
8" block or other	\$22
Wrought iron	\$16
Iron wood	\$18
Wood	\$11
3 strand barbed wire	\$ 3
Rail	\$ 6

In ground pools \$200 per perimeter foot

Wood frame or masonry patio covers shall be valued as open carports.

Metal patio covers and covered pipe-rail horse corrals shall be valued at 50 percent of the value of a wood or masonry patio cover.

Non-habitable accessory buildings, other than covered pipe-rail horse corrals, shall be valued as a private garage.

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Water/sewer collection and distribution lines shall be valued as determined by the Building Official.

Shell buildings shall be valued at 80% of new building value.

Alterations shall be valued at 20% of new building value.

Processing: All plan review fees (65 percent of calculated permit fee) required to be paid shall entitle the applicant to three submissions and reviews of documents submitted. If the applicant is unable to obtain approval of his application with these three attempts, the application shall be denied. The applicant may then resubmit and the submittal shall be treated as a new application. Should these circumstances occur or the permit has been expired in accordance with the Building Code, the Building Official may use information located in the denied/expired files to expedite processing, provided that the owner and/or architect/engineer have remained the same and that the building plans have not been changed.

No subsequent step in the permit process shall be undertaken without all fees due being paid.

Fees: The Building Official may develop a requirement for an initial flat rate filing fee for permits that require plan review. Should this type of fee be developed, said fee shall be considered as a part of and credited against any required plan review fees. The building plan review fees specified in the code are separate fees from the permit fees specified, these fees are also separate from the fees specified for investigations. Building plan review fees are assessed in addition to these other fees. All fees may be rounded up to the next full dollar amount at the discretion of the Building Official.

The following fees are hereby established for use.

TABLE 1-A - BUILDING CODE/PERMIT FEES

Total Valuation	Fee
\$1 to \$500	\$23.50
\$501 to \$2,000	\$23.50 for the first \$500 plus \$3.05 for each additional \$100, or fraction thereof, to and including \$2,000
\$2,001 to \$25,000	\$69.25 for the first \$2,000 plus \$14.00 for each additional \$1000, or fraction thereof, to and including \$25,000
\$25,001 to \$50,000	\$391.75 for the first \$25,000 plus \$10.10 for each additional \$1000, or fraction thereof, to and including \$50,000

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\$50,001 to \$100,000 \$643.75 for the first \$50,000 plus \$7.00 for each additional

\$1000, or fraction thereof, to and including \$100,000

\$100,001 to \$500,000 \$993.75 for the first \$100,000 plus \$5.60 for each additional

\$1000, or fraction thereof, to and including \$500,000

\$500,001 to \$1,000,000 \$3,233.75 for the first \$500,000 plus \$4.75 for each additional

\$1000, or fraction thereof, and including \$1,000,000

\$1,000,001 and up \$5,608.75 for the first \$1,000,000 plus \$3.65 for each

additional \$1000, or fraction thereof

Other Inspections and Fees:

1. Inspections outside of normal business hours \$ 150 per residential inspection

\$ 250 per commercial inspection\$ 150 per residential inspection

2. Reinspection fees\$ 150 per residential inspection\$ 250 per commercial inspection

\$ 150 per inspection

4. Expedited plan review by consultant Actual costs

5. Standard plan review (5 options) 2 times normal plan review fee

6. Change to approved plan (includes standards) \$ 250

3. Inspections for which no fee is indicated

7. Code Modification \$ 100 per request

8. Alternate material, design or methods \$ 100 per request

9. Tests required \$ 100 per test & test fees

paid by applicant

10. Appeal to the Building Code Advisory Board \$ 500

11. Amendment to the Code \$1500

12. Requested/needed staff directive \$ 250

13. Requested staff research report \$ 100 residential property

\$ 250 commercial property

14. Annual Facilities Permit Program:

Registration Fee \$750

Annual Facilities Permit \$500 per year Inspection Fee \$190 per hour

Flat Rate Fees:

Air Conditioner		50
Elec. Serv Residential 1 – 200 amps	\$	50
Elec. Serv Res or Comm 201 – 400 amps	\$	75
Elec. Serv over 400 amps		120
Temporary Meter	\$	50
Evaporative Cooler		50

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Gas Line (connect or clearance) Mobile Home "Pre-HUD Upgrade"	\$ 50 \$ 50
Plumbing Sewer Line SFR	\$ 50
Irrigation System	\$ 50
Sprinkler	\$ 50
Mechanical	\$ 50
Plumbing (Install or replace Equip/fixture/devices)	\$ 50
Demolition Permit	\$ 50
Manufactured/Mobile Home Setup/Installation	\$ 300
Commercial Manufactured Building (factory built building)	Based on installation value & Table 1-A
Occupancy Change	\$ 75
Hot Tub or Spa (in or above ground)	\$ 75
Swimming Pool above ground	\$ 75
Compliance Inspection	\$ 100
Move on House (compliance inspection	\$ 100
Renew Permit for Final	\$ 100
Special Event Fee (tents)	\$ 100 per event

Additional Fees:

Plumbing (water/sewer collector lines)	\$30 min based on valuation
Amendment to approved plan data	\$30
Unpaved Parking Area Paving	\$100
Temporary Certificate of Occupancy	
Without bonding	\$250
With bonding	\$500
Subdivision Infrastructure Permit	\$300
Ground Mounted Residential Solar System	\$500
(Less than six (6) feet high)	
Roof Mounted Residential Solar System	\$300

Licensing Time Frame Fees:

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- \$150 Pre-application meeting fee for residential projects subject to a violation
- \$50 Pre-application meeting fee for residential projects not subject to a violation
- \$50 Fee for a change to an application for a license in progress
- \$50 Fee for an application to be added to an application for a license in progress
- \$50 Fee to re-initiate application for a license administratively denied due to time (within 180 days)
- \$150 Fee to appeal administrative denial of a license (within 30 days)

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Copy Charges:

Additional copy of:

Permit \$ 2
Job card \$ 2
Certificate of Occupancy \$ 2

Copy (Approved Plans – per set) \$ 15 per set

(Restamping Only)

Copy (per page)

Standard copier \$ 1 Oversize copier \$ 6

Grading Fees:

Plan Review Fees:

Volume of material (Cut and Fill) Fee

<50 cubic yards No fee

50 – 100 cubic yards \$ 23.50

101 – 1,000 cubic yards \$ 37.00

1,001 – 10,000 cubic yards \$ 49.25

10,001 – 200,000 cubic yards \$ 49.25 plus \$ 24.50 for each additional

10,000 cubic yards or fraction thereof

200,001 or more cubic yards \$269.75 plus \$ 7.25 for each additional

10,000 cubic yards or fraction thereof

Additional plan review required

by changes, additions, or revisions

to approved plans \$50.00

Permit Fees:

Volume of material (Cut and Fill) Fee

<50 cubic yards \$ 23.50

50 – 100 cubic yards \$ 37.00

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101 – 1,000 cubic yards	\$ 37.00 plus \$ 17.50 for each additional 100 cubic yards or fraction thereof
1,001 – 10,000 cubic yards	\$194.50 plus \$ 14.50 for each additional 1,000 cubic yards or fraction thereof
10,001 – 100,000 cubic yards	\$325.00 plus \$ 66.00 for each additional 10,000 cubic yards or fraction thereof
100,001 or more cubic yards	\$919.00 plus \$ 24.50 for each additional 10,000 cubic yards or fraction thereof

Payment of Fees: No application shall be scheduled for hearing by any board or commission acting pursuant to the "Maricopa County Local Additions and Addenda", or administratively approved unless and until all fees and fines owed to the Department as a result of any activity or inactivity attributable to the property that is the subject of the application are brought current and paid in full or any amounts owed pursuant to an agreement of compliance are current, as the case may be. This requirement shall not be waived by the board/commission.*

SECTION 209. ADDITIONAL REGULATIONS

NOISE LEVEL REDUCTION: Any building within the vicinity of a military airport or ancillary military facility as defined by State Statute shall have a noise level reduction incorporated in the design and construction of any residential building or portions of buildings where the public is received, office areas and where normal noise level is low for first occupancy, including libraries, schools and churches, pursuant to building permits issued after December 31, 2001 in order to achieve a maximum interior noise level of forty-five decibels in areas within noise contours described in Section 1010. of the Maricopa County Zoning Ordinance. All residential buildings in territory in the vicinity of a military airport but outside the noise contours as described in this section shall be constructed with a minimum of R18 exterior wall assembly, a minimum of R30 roof and ceiling assembly, dual-glazed windows and solid wood, foam-filled fiberglass or metal doors to the exterior or, if the specified building standards are not met, the County may approve as an alternative, a certification by an architect or engineer registered pursuant to A.R.S. Title 32, Chapter 1 to achieve a maximum interior noise level of forty-five decibels at the time of final construction.

SECTION 210. BARRIERS FOR SWIMMING POOLS, SPAS & HOT TUBS

SECTION 210.1 - GENERAL

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210.1.1

Scope. The provisions of this section apply to the design and construction of barriers for swimming pools located on the premises of Group R, Division 3 Occupancies.

210.1.2

Standards of Quality. In addition to the other requirements of this code, safety covers for pools and spas shall meet the requirements for pool and spa safety covers as listed below. The standard listed below is a recognized standard. (See Section 3504.)

1. ASTM F 1346, Standard Performance Specification for Safety Covers and Labeling Requirement for All Covers for Swimming Pools, Spas and Hot Tubs

SECTION 210.2 – DEFINITIONS

For the purpose of this section, certain terms, words and phrases are defined as follows:

ABOVEGROUND/ON-GROUND POOL. See definition of "swimming pool."

BARRIER is a fence, wall, building wall or combination thereof that completely surrounds the swimming pool and obstructs access to the swimming pool.

GRADE is the underlying surface, such as earth or a walking surface.

HOT TUB. See definition of "spa, nonself-contained" and "spa, self-contained."

IN-GROUND POOL. See definition of "swimming pool."

SEPARATION FENCE is a barrier that separates all doors of a dwelling unit with direct access to a swimming pool from the swimming pool.

SPA, NONSELF-CONTAINED is a hydro massage pool or tub for recreational or therapeutic use, not located in health-care facilities, designed for immersion of users and usually having a filter, heater and motor-driven blower. It may be installed indoors or outdoors, on the ground or on a supporting structure, or in the ground or in a supporting structure. A nonself-contained spa is intended for recreational bathing and contains water over 24 inches (610mm) deep.

SPA, **SELF-CONTAINED** is a continuous-duty appliance in which all control, water-heating and water-circulating equipment is an integral part of the product, located entirely under the spa skirt. A self-contained spa is intended for recreational bathing and contains water over 18 inches deep.

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SWIMMING POOL is any structure intended for swimming or recreational bathing that contains water over 18 inches deep and/or wider than 8 feet at any point. This includes in-ground, aboveground and on-ground swimming pools, and fixed-in-place wading pools. This does not include decorative fountains that contain water less than 12 inches deep.

SWIMMING POOL, INDOOR is a swimming pool that is totally contained within a residential structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR is any swimming pool that is not an indoor pool.

SECTION 210.3 – REQUIREMENTS

- **210.3.1 Outdoor Swimming Pool.** An outdoor swimming pool shall be provided with a barrier that shall be installed, inspected and approved prior to plastering or filling with water. The barrier shall comply with the following:
 - 1. The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance at the bottom of the barrier may be increased to 4 inches (102 mm) when grade is a solid surface such as a concrete deck, or when the barrier is mounted on the top of the aboveground pool structure. When barriers have horizontal members spaced less than 54 inches apart, the horizontal members shall be placed on the pool side of the barrier. Any decorative design work on the side away from the swimming pool, such as protrusions, indentations or cutouts, which render the barrier easily climbable, is prohibited.
 - 2. Openings in the barrier shall not allow passage of a 1 ¾-inch-diamenter (44.5 mm) sphere.

EXCEPTIONS:

- 1. When vertical spacing between such openings is 54 inches or more, the opening size may be increased such the passage of a 4-inch-diameter (102 mm) sphere is not allowed.
- 2. For fencing composed of vertical and horizontal members, the spacing between vertical members may be increased up to 4 inches (102 mm) when the distance between the tops of horizontal members is 54 inches or more.
- 3. Chain link fences used as the barrier shall not be less than 11 gauge.
- 4. Access gates shall comply with the requirements of Items 1 through 3. Pedestrian access gates shall be self-closing and have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, (1) the release mechanism shall be located on the pool side of the barrier at least 3 inches (76 mm) below the

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- top of the gate, and (2) the gate and barrier shall have no opening greater than $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism. Pedestrian gates shall swing away from the pool. Any gates other than pedestrian access gates shall be equipped with lockable hardware or padlocks and shall remain locked at all times when not in use.
- 5. Where a wall of a Group R, Division 3 Occupancy dwelling unit serves as part of the barrier and contains door openings between the dwelling unit and the outdoor swimming pool that provide direct access to the pool, a separation fence meeting the requirements of Items 1, 2, 3 and 4 of Section 210.3.1 shall be provided.

EXCEPTIONS: When approved by the Building Official, one the following may be used:

- Self-closing and self-latching devices installed on all doors with direct access to the pool with the release mechanism located a minimum of 54 inches (1372 mm) above the floor.
- 2. An alarm installed on all doors with direct access to the pool. The alarm shall sound continuously for a minimum of 30 seconds within seven seconds after the door and its screen, if present, are opened, and be capable of providing a sound pressure level of not less than 85 dBA when measured indoors at 10 feet (3048 mm). The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means such a touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last no longer than 15 seconds. The deactivation switch shall be located at least 54 inches (1372 mm) above the threshold of the door.
- 3. Other means of protection may be acceptable so long as the degree of protection afforded is not less than that afforded by any of the devices described above.
- 4. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then (1) the ladder or steps shall be capable of being secured, locked or removed to prevent access or (2) the ladder or steps shall be surrounded by a barrier that meets the requirements of Items 1 through 5. When the ladder or steps are secured, locked or removed, any opening created shall be protected by a barrier complying with Items 1 through 5.
- **210.3.2 Indoor Swimming Pool.** For an indoor swimming pool, protection shall comply with the requirements of Section 210.3.1 Item 5
- **Spas and Hot Tubs.** For a nonself-contained and self-contained spa or hot tub protection shall comply with the requirements of Section 210.3.1

EXCEPTION: A self-contained spa or hot tub equipped with a listed safety cover shall be exempt from the requirements of Section 210.3.1

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- Where a window faces a swimming pool enclosure, said window shall be equipped with a screwed in place wire mesh screen, a keyed lock that prevents opening the window more than 4" or a latching device located not less than 54" above the floor. Emergency escape or rescue windows in bedrooms which face swimming pool enclosures shall be equipped with a latching device located no less than 54" above the floor.
- 210.3.5 Protective enclosures shall be located at a minimum horizontal distance of 54" from any equipment, permanent structures, planters, or similar objects that could be used to climb the enclosure. This provision shall not apply to the area between the pool and the protective enclosure if the protective enclosure is a solid wall with no openings.

SECTION 211. RESIDENTIAL WOODBURING REGULATIONS

211.1 FIREPLACE RESTRICTIONS

211.1.1 Purpose

The purpose of this subsection is to regulate fireplaces, wood stoves, or other solid-fuel burning devices to reduce the amount of air pollution caused by particulate matter and carbon monoxide.

211.1.2 Applicability

The Residential Woodburning Restriction Ordinance applies to any residential wood burning device in sections of Area A that are within Maricopa County or within incorporated cities and towns in such sections.

AREA A – As defined in Arizona Revised Statues (ARS) §49-541(1), the area in Maricopa County delineated as follows:

Township 8 North, Range 2 East and Range 3 East

Township 7 North, Range 2 West through Range 5 East

Township 6 North, Range 5 West through Range 6 East

Township 5 North, Range 5 West through Range 7 East

Township 4 North, Range 5 West through Range 8 East

Township 3 North, Range 5 West through Range 8 East

Township 2 North, Range 5 West through Range 8 East

Township 1 North, Range 5 West through Range 7 East

Township 1 South Range 5 West through Range 7 East

Township 2 South, Range 5 West through Range 7 East

Township 3 South Range 5 West through Range 1 East

Township 4 South Range 5 West Through Range 1 East

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211.1.3 Effective Date

The effective date of the regulations and prohibitions set forth in this subsection shall be December 31, 1998.

211.1.4 Definitions

For purposes of this subsection, the following words and terms shall be defined as follows: **FIREPLACE** means a built in place masonry hearth and fire chamber of a factory-built appliance, designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes.

SOLID FUEL includes but is not limited to wood, coal, or other nongaseous or nonliquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood-burning devices.

WOOD STOVE means a solid-fuel burning heating appliance, including a pellet stove, which is either freestanding or designed to be inserted into a fireplace.

211.1.5 Installation Restrictions

- (a) On or after December 31, 1998, no person, firm or corporation shall construct or install a fireplace or a wood stove, and the Building Official shall not approve or issue a permit to construct or install a fireplace or a wood stove, unless the fireplace or wood stove complies with one of the following:
 - 1. Provides the sole or primary source of heat or fuel for cooking for a residence.
 - 2. Meets performance standards for new residential wood heaters manufactured on or after July 1, 1990, or sold at retail on or after July 1, 1992, as prescribed by 40 Code of Federal Regulations Part 60, Subpart AAA.
 - 3. Burns gaseous fuels, including gas logs.
 - 4. Meets rules adopted by the Board of Supervisors as prescribed in ARS § 49-479 for burning wood in approved appliances.

211.1.6 Permits Required

In addition to the provisions and restrictions of this subsection, construction, installation or alteration of all fireplaces, wood stoves and gas, electric or solid-fuel burning appliances and equipment shall be done in compliance with provisions of the County Building Code and shall be subject to the permits and inspections required by the County Building Code.

Chapter 3 – Adoption of National Codes

SECTION 301. 2012 INTERNATIONAL BUILDING CODE

The 2012 International Building Code has been adopted as the building code for Maricopa County along with the following amendments:

Amendments to the 2012 International Building Code:

Delete Sections 105.1.1 and 105.1.2 and replace with:

105.1 Annual Facility Permits.

105.1.1 General. The Annual Facilities Permit is an administrative system intended to simplify the permitting and inspection process for qualified facilities by allowing inspectors to review plans and maintaining inspectors familiar with the construction history of such facilities. Qualified facilities electing to participate in this program are exempt from the requirement to obtain individual permits for the work regulated by this code when such work does not increase the floor area, does not constitute a change of use or occupancy classification, and is performed on existing buildings, structures, and utilities associated with that qualified facility. This alternative permit process shall not exempt compliance with the technical requirements of this code, the technical codes, or with other County, State, or Federal laws, nor exempt work from inspection prior to concealment.

105.1.2 Definitions. For purposes of this Section, the following terms shall apply:

AGENT: An architect or engineer registered in the State of Arizona and who is responsible for complying with the substantive provisions of this Chapter. The agent, as authorized by rules established by the Arizona Board of Technical Registration, shall assure work has been performed in accordance with this code and the technical codes.

QUALIFIED FACILITY: A firm, corporation, or political entity engaged in manufacturing, processing, service, or property management that occupies and controls specialized buildings and building service equipment to the extent that full-time personnel are required to manage, operate, or maintain such buildings and equipment in compliance with all the provisions of this code and the technical codes.

105.1.3 Annual Facilities Permit Transferability. An Annual Facilities Permit is not transferable.

105.1.4 Annual Facilities Permit Renewal. An Annual Facilities Permit may be renewed every twelve (12) months by payment of a renewal fee as set forth in the Maricopa County Schedule of Fees. Additional hourly charges will be assessed for each work project. Renewal fees shall be due and payable prior to the permit expiration date, or a new initial application

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shall be required. Work performed after the permit expiration date shall be in violation of this code and subject to penalty.

105.1.5 Annual Facilities Permit Operation. The agent shall notify the Building Official or his/her designee prior to the start of any work involving alteration of the building structure system, alteration of any fire-resistive wall, floor, or ceiling assembly, alteration of any fire corridor system, or installation of any structural, mechanical, plumbing, or electrical work intended to be enclosed or concealed. The Building Official shall determine the nature and extent of plan reviews and/or inspections required. Maricopa County shall invoice the Qualified Facility and the Qualified Facility shall pay for the professional services rendered as set forth in the Maricopa County Schedule of Fees.

105.1.6 Annual Facilities Permit Records. The agent shall keep a detailed record of alterations made under an Annual Facilities Permit. The building official shall have access to such records at all times or such records shall be filed with the building official as designated.

Adopt Appendix G Flood-Resistant Construction

Revise the following Sections to read:

109.4 Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary *permits* shall be subject to a fee established by the Building Official that shall be in addition to the required *permit fees*. Said fee to be the building permit fee doubled.

SECTION 202 DEFINITIONS.

PERSONAL CARE SERVICE is assistance with activities of daily living that can be performed by persons without professional skills or professional training and includes the coordination or provision of intermittent nursing services and administration of medications or treatments.

SUPERVISORY CARE SERVICE is general supervision, including daily awareness of resident functioning and continuing needs.

DIRECTED CARE SERVICE is care of residents, including personal care services, who are incapable of recognizing danger, summoning assistance, expressing need or making basic care decisions.

ASSISTED LIVING FACILITY is a residential care institution, including adult foster care, that provides or contracts to provide supervisory care services, personal care services or directed care services on a continuing basis.

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ASSISTED LIVING CENTER is an assisted living facility that provides resident rooms to eleven or more residents.

ASSISTED LIVING HOME is an assisted living facility that provides resident rooms to ten or fewer residents.

INSTITUTIONAL GROUP I

308.3 Institutional Group I-1. This occupancy shall include buildings, structures or portions thereof for more than 10 persons who reside on a 24 hour basis in a supervised environment, receive custodial care and are capable of self-preservation, except as provided for assisted living centers. This group shall include, but not be limited to, the following:

for assisted living centers. This group shall include, but not be limited to, the following:	
Alcohol and drug centers	
Assisted living centers	
Congregate care facilities	
Convalescent facilities	

Group homes

Halfway houses

Residential board and custodial care facilities

Social rehabilitation facilities

308.3.2 Six to Ten Persons Receiving Care. A facility such as above, housing not fewer than six and not more than 10 persons receiving such care, shall be classified as Group R-4, except as provided for assisted living homes.

308.4 Institutional Group I-2. This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. This group shall include, but not be limited to, the following:

Foster	care	faci	lities
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Detoxification facilities

Hospitals

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Assisted living centers

Psychiatric hospitals

SECTION 310.2 DEFINITIONS. The following terms are defined in Chapter 2:

ASSISTED LIVING FACILITY

ASSISTED LIVING CENTER

ASSISTED LIVING HOME

BOARDING HOUSE

CONGREGATE LIVING FACILITIES

DIRECTED CARE SERVICES

DORMITORY

GROUP HOME

PERSONAL CARE SERVICE

SUPERVISORY CARE SERVICES

TRANSIENT

- **310.5.1 Care facilities with a dwelling.** Licensed care facilities for 10 or fewer persons receiving care that are within a single-family dwelling are permitted provided that the requirements of Section 425 of this code are met.
- **310.6 Residential Group R-4.** This occupancy shall include buildings, structures or portions thereof for more than five but not more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. The persons receiving care are capable of self-preservation, except as provided for assisted living homes. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living homes

Congregate care facilities

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Convalescent facilities

Group homes

Halfway houses

Residential board and custodial care facilities

Social rehabilitation facilities

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code and Section 425.

- **310.6.1 Condition 1.** This occupancy condition shall include facilities licensed to provide supervisory care services, in which occupants are capable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 1 facilities housing more than 10 persons shall be classified as Group I-2.
- **310.6.2 Condition 2.** This occupancy condition shall include facilities licensed to provide personal or directed care services, in which occupants are incapable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 2 facilities housing more than 10 persons shall be classified as Group I-1.

SECTION 425. ASSISTED LIVING HOMES

- **425.1 Applicability.** The provisions of this section shall apply to a building or part thereof housing not more than 10 persons, excluding staff, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment, which provides licensed care services. Except as specifically required by this division, R-4 occupancies shall meet all the applicable provisions of Group R-3.
- **425.2 General.** Building or portions of buildings classified as R-4 may be constructed of any materials allowed by this code, shall not exceed two stories in height nor be located above the second story in any building and shall not exceed two thousand square feet above the first story, except as provided in Section 506.
- **425.3 Special Provisions.** R-4 occupancies having more than 2000 square feet above the first story shall be of not less than one-hour fire-resistive construction throughout.
- **425.3.1 Mixed Uses.** R-4 occupancies shall be separated from other occupancies as provided in Table 508.4.
- 425.4 Access and Means of Egress Facilities.

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425.4.1 Accessibility. R-4 occupancies shall be provided with at least one accessible route as provided in Section 1104.1.

425.4.2 Exits.

425.4.2.1 Number of Exits. Every story, basement or portion thereof shall have not less than two exits.

Exception: Basements and stories above the first floor containing no sleeping rooms used by residents may have only one means of egress as provided in Chapter 10.

- **425.4.2.2 Distance to Exits.** The maximum travel distance shall comply with Section 1016, except that the maximum travel distance from the center point of any sleeping room to an exit shall not exceed 75 feet.
- **425.4.2.3 Emergency Exit Illumination.** In event of a power failure, exit illumination shall be automatically provided from an emergency system powered by storage batteries or an onsite generator set installed in accordance with the International Electric Code.
- **425.4.2.4 Emergency Escape and Rescue.** R-4 occupancies shall comply with the requirements of Section 1029, except that Exception #1 to 1029 does not apply to R-4 occupancies.
- **425.4.2.5 Delayed Egress Locks.** In R-4 Condition 2 occupancies, delayed egress locks shall be permitted in accordance with 1008.1.9.7, Items 1,2,4,5 and 6.
- 425.5 Smoke Alarms and Sprinkler Systems.
- **425.5.1 Smoke Alarms.** R-4 occupancies shall be provided with smoke alarms installed in accordance with 907.2.11.2, and such alarms shall be installed in all habitable rooms.
- **425.5.2 Sprinkler Systems.** R-4 occupancies shall be provided with a sprinkler system installed in accordance with 903.3.1.3. Sprinkler systems installed under this section shall be installed throughout, including attached garages, and in Condition 2 facilities, shall include concealed spaces of, or containing, combustible materials. Such systems may not contain unsupervised valves between the domestic water riser control valve and the sprinklers. In Condition 2 occupancies, such systems shall contain water flow switches electrically supervised by an approved supervising station, and shall sound an audible signal at a constantly attended location.
- **1008.1.2 Door Swing.** Delete the text of Exception #4 and replace with the following:

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4. Doors within or serving a single dwelling unit in Groups R-2 and R-3, as applicable in 101.2 and R-4.

Section 903.2.8 Group R: An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area except one and two family dwellings.

Section 1008.1.2 Door Swing. Egress doors shall be side-hinged swinging.

Exceptions:

4. Doors within or serving a single dwelling unit in Groups R-2, R-3 as applicable in Section 101.2, and R-4

Add 1101.3 as follows:

1101.3 Other Regulations: In addition to the requirements of this code all structures and sites must comply with the "Arizonans with Disabilities Act" (Arizona Revised Statutes, Title 41, Chapter 9, Article 8), and the "Arizonans with Disabilities Act Implementing Rules" (Arizona Administrative Code, Title 10, Chapter 3, Article 4). These regulations incorporate the federal "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities". These requirements will apply to new construction and alterations and are not applicable in existing buildings or portions of existing buildings that do not meet the standards and specifications of these regulations. These regulations are hereby adopted and made a part hereof as though fully set forth in this section. Where these regulations differ from the requirements of Chapter 11 of the 2012 International Building Code, the stricter shall apply.

Revise as follows:

- **1210.2 Walls**. Walls within 2 feet (10 mm) of service sinks, urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of 4 feet (1219 mm) above the floor and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.
- **1503.4.4 Where Required.** All roofs, paved areas, yards, courts and courtyards shall drain into a separate storm sewer system, or a combined sewer system, or to an approved place of disposal.
- **1503.4.5 Roof Design.** Roofs shall be designed for the maximum possible depth of water that will pond thereon as determined by the relative levels of roof deck and overflow weirs, scuppers, edges or serviceable drains in combination with the deflected structural elements. In determining the maximum possible depth of water, all primary roof drainage means shall be assumed to be blocked. Design shall be based on 6" rainfall in 1 hour.

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1503.4.6 Overflow Drainage Required. Overflow (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

1503.4.6.1 Separate Systems Required. Overflow roof drain systems shall have the end point of discharge separate from the primary system. Discharge shall be above grade, in a location, which would normally be observed by the building occupants or maintenance personnel.

1503.4.6.2 Overflow Drains and Scuppers. Where roof drains are required, overflow drains having the same size as the roof drains shall be installed with the inlet flow line located 2 inches (51mm) above the low point of the roof, or overflow scuppers having three times the size of the roof drains may be installed in the adjacent parapet walls. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by the plumbing code. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

Table 1607.1 Revise as follows:

OCCUPANCY OR USE	UNIFORM (PSF)	CONCENTRATED (LBS.)
25. Residential		
One- and two-family dwellings		
Uninhabitable attics with limited storage Habitable attics and sleeping areas	40 40	
(no other changes in item 25)		

Amend Section 1609.1.1 to add:

Exception 7. For design wind loads on solid freestanding walls not over 7 feet, a net force coefficient cf = 1.2 may be used.

Section 3109 Swimming Pool Enclosures is deleted.

SECTION 302. 2012 INTERNATIONAL RESIDENTIAL CODE

The 2012 International Residential Code has been adopted as the Residential Building Code for Maricopa County along with the following amendments.

Amendments to the 2012 International Residential Code:

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Revise Table R 301.5 as follows:

Use	Live Load
Attics with limited storage b,g	40
Habitable attics and attics served with fixed stairs	40
Sleeping rooms	40

No other changes to table

Section R313 Automatic fire sprinkler systems is deleted.

Add the following:

<u>Compliance with Chapter 11 Energy Efficiency is optional, unless specifically required through ordinance by Maricopa County.</u> If used, the following amendments will apply:

N1101.17 RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards Protocol for third party testing and inspections shall be deemed to meet the requirements of sections N1102.4.1.1, N1102.4.1.2 and N1103.2.2 and shall meet the following conditions:

- Third Party Testing and Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review procedures.
- 2. Sampling in accordance with Chapter 6 of the RESNET Standards shall be performed by Raters or Rating Field Inspectors working under a RESNET Accredited Sampling Provider.
- 3. Third Party Testing is required for the following items:
 - a. N1102.4.1.1 Building Envelope Thermal and Air Barrier Checklist
 - b. N1102.4.1.2 Testing Air Leakage Rate
 - c. N1103.2.2 Sealing Duct Tightness
- 4. The other requirements identified as "mandatory" in Chapter 4 shall be met.
- 5. Alternate testing and inspection programs and protocols shall be allowed when approved by the Code Official.

N1101.17.1 Alternative approach for compliance. A Home Energy Rating System ("HERS") Index of 73 or less, confirmed in writing by a Residential Energy Services Network certified energy rater may be used in place of the approach described in Section N1101.2 above. Compliance may be demonstrated by use of sampling in accordance with Chapter 6 of the

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Mortgage Industry National Home Energy Rating Systems Standard as adopted by the Residential Energy Services Network.

N1103.2 Ducts. Ducts and air handlers shall be in accordance with Sections N1103.2.1 through N1103.2.3.

N1103.2.1 Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exceptions: Ducts or portions thereof located completely inside the building thermal envelope.

- 1. Ducts or portions thereof located completely inside the building thermal envelope.
- 2. Supply ducts may be insulated to a minimum of R-6 when one or more of the following conditions are met:
 - 2.1 Minimum SEER rating of space heating/cooling system is increased to 15.
 - 2.2 Maximum U-factor is decreased to 0.35 and maximum SHGC is decreased to .022 for all fenestration products.
 - 2.3 Wall cavity insulation minimum R-value is increased to R-19.
 - 2.4 Residential buildings that meet the requirements of Sections N1102.1.1 or N1105.
 - 2.5 Residential buildings with attic radiant barriers in accordance with ASTMC 1313, installed in accordance with ASTM C1743.

Delete Section N1103.9.3 and replace with:

N1103.9.3 Motors with a total horsepower of one or more for pools and in-ground permanently installed spas shall have the capability of operating at two or more speeds with a low speed having a rotation rate that is no more than one-half of the motor's maximum rotation rate and shall be operated with a pump control with the capability of operating the pump at two or more speeds. Residential pool pump motor controls that are sold for use with a two or more speed motor shall have a default circulation speed setting no more than one-half of the motor's maximum rotation rate. Any high speed override capability shall be for a temporary period not to exceed one twenty-four hour cycle without resetting to the default setting.

M1307.7 Liquefied Petroleum Appliances. LPG appliances shall not be installed in an attic, pit or other location that would cause a ponding or retention of gas.

M1503.1 General. Range hoods shall discharge to the outdoors though a single wall duct. The duct serving the hood shall have a smooth interior surface, shall be airtight, and shall be Chapter 3 - Page 10

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equipped with a backdraft damper, and shall be independent of all other exhaust systems. Changes in size or direction shall be accomplished with a pre-manufactured transition fitting. Ducts serving range hoods shall not terminate in an attic or crawl space or areas inside the building.

G2406.2 Add new item 6 text after the exceptions as follows:

6. Liquefied Petroleum Appliances. LPG appliances shall not be installed in an attic, pit or other location that would cause a ponding or retention of gas.

G2415.12 Minimum Burial Depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade for metal piping and 18 inches (457 mm) for plastic piping.

SECTION G2415.12.1 Individual Outside appliances is deleted

SECTION P2803.6.1 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

- 1. Not be directly connected to the drainage system.
- 2. Discharge through an air gap located in the same room as the water heater except where the discharge is to the outdoors, not subject to freezing and the piping terminates not less than 6 inches (152mm) and not more that 12 inches (305mm) above grade.
- 3. Not be smaller that the diameter of the outlet of the valve served and shall discharge full size to the air gap.
- 4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
- 5. Discharge to the floor, to the pan serving the water heater or storage tank, to a waste receptor or to the outdoors.
- 6. Discharge in a manner that does not cause personal injury or structural damage.
- 7. Discharge to a termination point that is readily observable by the building occupants.
- 8. Not be trapped.
- 9. Be installed so as to flow by gravity.
- 10. Not terminate more that 6 inches (152mm) above the floor or waste receptor.
- 11. Not have a threaded connection at the end of such piping.
- 12. Not have valves or tee fittings.
- 13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.
- 14. Direct the discharge in a downward direction.

SECTION P2904 DWELLING UNIT FIRE SPRINKLER SYSTEMS is deleted.

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SECTION 303. 2012 INTERNATIONAL MECHANICAL CODE

The 2012 International Mechanical Code has been adopted as the Mechanical Code for Maricopa County along with the following amendments.

Amendments to the 2012 International Mechanical Code:

Revise the following sections to read:

505.1 Domestic Systems. Where domestic range hoods and domestic appliances equipped with downdraft exhaust are located within dwelling units, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a backdraft damper, and shall be independent of all other exhaust systems. Changes in size or direction shall be accomplished with an approved transition fitting.

1004.1 Standards. Oil-fired boilers and their control systems shall be listed and labeled in accordance with UL 726. Electric boilers and their control systems shall be listed and labeled in accordance with UL 834. Boilers shall be designed and constructed in accordance with the ASME *Boiler and Pressure Vessel Code* and Arizona Boiler Rules, Title 20 Chapter 5.

SECTION 304. 2012 INTERNATIONAL PLUMBING CODE

The 2012 International Plumbing Code has been adopted as the plumbing code for Maricopa County along with the following amendments.

Amendments to the 2012 International Plumbing Code:

Add to Section 405.3.1:

Exception: Side clearances for accessible or ambulatory water closets shall comply with ICC/ANSI A117.1.

504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

- 1. Not be directly connected to the drainage system.
- 2. Discharge through an air gap located in the same room as the water heater except where the discharge is to the outdoors, not subject to freezing and the piping terminates not less than 6 inches (152mm) and not more that 12 inches (305mm) above grade.

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- 3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
- 4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
- 5. Discharge to the floor, to the pan serving the water heater or storage tank, to a waste receptor or to the outdoors.
- 6. Discharge in a manner that does not cause personal injury or structural damage.
- 7. Discharge to a termination point that is readily observable by the building occupants.
- 8. Not be trapped.
- 9. Be installed as to flow by gravity.
- 10. Not terminate more than 6 inches (152mm) above the floor or waste receptor.
- 11. Not have a threaded connection at the end of such piping.
- 12. Not have valves or tee fittings.
- 13. Be constructed of those materials listed in Section 6-5-.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.
- 14. Direct the discharge in a downward direction.

Add to Section 904.1:

All open vent pipes that extend through a roof shall be terminated at least six inches (152mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134mm) above the roof.

SECTION 305. 2011 NATIONAL ELECTRICAL CODE

The 2011 National Electrical Code has been adopted as the electrical code for Maricopa County along with the following amendments.

Revise the following sections to read:

ARTICLE 210 - Branch Circuits

Section 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel

- **(B) Other Than Dwelling Units.** All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in 210.8(B)(1) through (8) shall have ground-fault circuit-interrupter protection for personnel.
- **(6)** Indoor damp and wet locations.

ARTICLE 250 – Grounding and Bonding 250.118 Types of Equipment Grounding Conductors.

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The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

- (1) A copper, aluminum or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered or bare; and in the form of a wire or a busbar of any shape.
- (2) Rigid metal conduit.
- (3) Intermediate metal conduit.
- (4) Electric metallic tubing with an additional equipment grounding conductor.
- (5) Listed flexible metal conduit meeting all the following conditions:
 - a. The conduit is terminated in listed fittings.
 - b. The circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.
 - c. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).
 - d. If used to connect equipment where flexibility is necessary to minimize the transmission of vibration from equipment or to provide flexibility for equipment that requires movement after installation, an equipment grounding conductor shall be installed.
- (6) Listed liquidtight flexible metal conduit meeting all the following conditions:
 - a. The conduit is terminated in listed fittings.
 - b. For metric designators 12 through 16 (trade sizes 3/8 through 1/2), the circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.
 - c. For metric designators 21 through 35 (trade sizes 3/4 through 1-1/4), the circuit conductors contained in the conduit are protected by overcurrent devices rated not more than 60 amperes and there is no flexible metal conduit, flexible metal tubing, or liquidtight flexible metal conduit in trade sizes metric designators 12 through 16 (trade sizes 3/8 through 1/2) in the ground-fault current path.
 - d. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).
 - e. If used to connect equipment where flexibility is necessary to minimize the transmission of vibration from equipment or to provide flexibility for equipment that requires movement after installation, an equipment grounding conductor shall be installed.
- (7) Flexible metallic tubing where the tubing is terminated in listed fittings and meeting the following conditions:
 - a. The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.

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- b. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground-fault current path does not exceed 1.8 m (6 ft).
- (8) Armor of Type AC cable as provided in 320.108.
- (9) The copper sheath of mineral-insulated, metal-sheathed cable.
- (10) Type MC cable that provides an effective ground-fault current path in accordance with one or more of the following:
 - a. It contains an insulated or uninsulated equipment grounding conductor in compliance with 250.118(1).
 - b. The combined metallic sheath and uninsulated equipment grounding/bonding conductor of interlocked metal tape-type MC cable that is listed and identified as an equipment grounding conductor.
 - c. The metallic sheath or the combined metallic sheath and equipment grounding conductors of the smooth or corrugated tube-type MC cable that is listed and identified as an equipment grounding conductor.
- (11) Cable trays as permitted in 392.10 and 392.60.
- (12) Cablebus framework as permitted in 370.3
- (13) Other listed electrically continuous metal raceways and listed auxiliary gutters.
- (14) Surface metal raceways listed for grounding.

ARTICLE 334 - Nonmetallic-Sheathed Cable; Types NM, NMC and NMS

II. Installation

- **334.10 Uses Permitted.** Type NM, Type NMC and Type NMS cables shall be permitted to be used in the following:
- (1) One- and two- family dwellings and their attached or detached garages, and their storage buildings.
- (2) Multifamily dwellings permitted to be of Types III, IV and V construction except as prohibited in 334.12.
- (3) Other dwelling unit accessory buildings and structures in accordance with 334.10(1) and 334.10 (2) and other provisions of this Code.
- (4) Cable trays in structures permitted to be Types III, IV or V in accordance with 334.10(1) and (2) where the cables are identified for the use.
- (5) Types I and II construction in accordance with 334.10(1) and (2) where installed within raceways permitted to be installed in Types I and II construction.
- **(A) Type NM.** Type NM cable shall be permitted as follows:

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- (1) For both exposed and concealed work in normally dry locations.
- (2) To be installed or fished in air voids in masonry block or tile walls.
- **(B) Type NMC**. Type NMC cable shall be permitted as follows:
- (1) For both exposed and concealed work in dry, moist, damp or corrosive locations.
- (2) In outside and inside walls of masonry block or tile.
- (3) In a shallow chase in masonry, concrete or adobe protected against nails or screws by a steel plate at least 1.59 mm (1/16 in.) thick and covered with plaster, adobe or similar finish.
- **C) Type NMS**. Type NMS cable shall be permitted as follows:
- (1) For both exposed and concealed work in normally dry locations.
- (2) To be installed or fished in air voids in masonry block or tile walls.

334.12 Uses Not Permitted.

- **(A) Types NM, NMC and NMS.** Type NM, Type NMC and Type NMS cables shall not be permitted as follows:
- (1) In any dwelling or structure not specifically permitted in 334.10(1), (2) and (3).
- (2) As service-entrance cable.
- (3) In hoistways or on elevators or escalators
- (4) Embedded in poured cement, concrete or aggregate.
- **(B) Types NM and NMS.** Types NM and NMS cables shall not be used under the following conditions or in the following locations:
- (1) Where exposed to corrosive fumes or vapors.
- (2) Where embedded in masonry, concrete, adobe, fill or plaster.
- (3) In a shallow chase in masonry, concrete or adobe and covered with plaster, adobe or similar finish.
- (4) In wet or damp locations.

SECTION 306. 2003 INTERNATIONAL FIRE CODE

The 2003 International Fire Code has been adopted as the Fire Code only for properties owned by Maricopa County, regardless of the jurisdiction within which the property lies, along with the following amendments:

AMENDMENTS TO THE 2003 INTERNATIONAL FIRE CODE:

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Delete all references to the International Existing Building Code from sections 102.3, 102.4, 102.5 and any other sections.

Revise section 104.6 to read:

104.6 Official Records. The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained for not less than ninety (90) days after final occupancy approval, unless otherwise provided by other regulations.

Delete Section 105 Permits.

Delete Section 107 Maintenance.

Delete Section 109.3 Violation Penalties.

Delete all Appendices A through G.

SECTION 307. 2012 INTERNATIONAL FUEL GAS CODE

The 2012 International Fuel Gas Code has been adopted as the Fuel Gas Code for Maricopa County with one amendment to delete sections 301.2 and 404.11.1, and one revision as follows:

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade for metal piping and 18 inches (457mm) for plastic piping.

Delete Section 404.12.1

SECTION 308. 2012 INTERNATIONAL GREEN CONSTRUCTION CODE

The 2012 International Green Construction Code has been adopted as the Green Construction Code for Maricopa County along with the following amendments:

Amendments to the 2012 International Green Construction Code:

Revise the following sections to read:

SECTION 101 GENERAL

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[A] 101.1 Title.

These regulations shall be known as the Maricopa County Green Construction Code hereinafter referred to as "this code."

101.2 General.

The use of this code is optional, unless specifically required through ordinance by Maricopa County. This code is an overlay document to be used in conjunction with the other codes and standards adopted by the jurisdiction. This code is not intended to be used as a standalone construction regulation document and permits are not to be issued under this code. This code is not intended to abridge or supersede safety, health or environmental requirements under other applicable codes or ordinances.

TABLE 302.1
REQUIREMENTS DETERMINED BY THE JURISDICTION

Section	Section Title of Description and Directives	Jurisdictional Requirements			
CHAPTER 1. SCOPE					
101.3 Exception 1.1	Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height above grade plane with a separate means of egress, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	Yes			
101.3 Exception 1.2	Group R-3 residential buildings, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	Yes			
101.3 Exception 1.3	Group R-2 and R-4 residential buildings four stories or less in height above grade plane, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	Yes			
	CHAPTER 4. SITE DEVELOPMENT AND LAND USE				
402.2.1	Flood hazard area preservation, general		No		
402.2.2	Flood hazard area preservation, specific		No		
402.3	Surface water protection		No		
402.5	Conservation area	Yes			
402.7	Agricultural land	Yes			
402.8	Greenfield sites	Yes			
407.4.1	High-occupancy vehicle parking	Yes			
407.4.2	Low-emissions, hybrid and electric vehicle parking	Yes			

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409.1	Light pollution control	Yes	
	CHAPTER 5. MATERIAL RESOURCE CONSERVATION AND EFFIC	CIENCY	
503.1	Minimum percentage of waste material diverted from landfills.	50%	
СНА	PTER 6. ENERGY CONSERVATION, EFFICIENCY AND CO2e EMISSION	NS REDUCTION	ON
302.1, 302.1.1, 602.1	zEPI of Jurisdictional Choice . The jurisdiction shall indicate a zEPI of 46 or less in each occupancy for which it intends to require enhanced energy performance.	Occupancy:zEPI:	
604.1	Automated demand response infrastructure		No
	CHAPTER 7. WATER RESOURCES CONSERVATION, QUALITY AND E	FFICIENCY	
702.7	Municipal reclaimed water		No
	CHAPTER 8. INDOOR ENVIRONMENT QUALITY AND COMFO	ORT	
804.2	Post-Construction Pre-Occupancy Baseline IAQ Testing		No
807.1	Sound transmission and sound levels	Yes	
	CHAPTER 10. EXISTING BUILDINGS		
1007.2	Evaluation of existing buildings	Yes	
1007.3	Post Certificate of Occupancy zEPI, energy demand and CO2e emissions reporting		No

SECTION 309. 2012 INTERNATIONAL ENERGY CONSERVATION CODE

The 2012 International Energy Conservation Code has been adopted as the Energy Conservation Code for Maricopa County. <u>Compliance with this code is optional, unless specifically required through ordinance by Maricopa County.</u> If used, the following amendments will apply:

Amendments to the 2012 International Energy Conservation Code:

Revise the following sections to read:

C101.2 Scope. This code applies to commercial buildings and the building sites and associated systems and equipment. Group R-2 when defined as a Commercial Building by Section C202, shall have the option of complying under the Residential Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Residential Provisions shall be followed.

R101.2 Scope. This code applies to residential buildings and the building sites and associated systems and equipment. Group R-2 when defined as a Residential Building by

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Section R202, shall have the option of complying under the Commercial Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Commercial Provisions shall be followed.

Add Section R102.1.2

- **R102.1.2 RESNET Testing & Inspection Protocol.** The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards Protocol for third party testing and inspections shall be deemed to meet the requirements of sections R402.4.1.1, R402.4.1.2 and R403.2.2 and shall meet the following conditions:
 - Third Party Testing and Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review procedures.
 - 7. Sampling in accordance with Chapter 6 of the RESNET Standards shall be performed by Raters or Rating Field Inspectors working under a RESNET Accredited Sampling Provider.
 - 8. Third Party Testing is required for the following items:
 - a. R402.4.1.1 Building Envelope Thermal and Air Barrier Checklist
 - b. R402.4.1.2 Testing Air Leakage Rate
 - c. R403.2.2 Sealing Duct Tightness
 - 9. The other requirements identified as "mandatory" in Chapter 4 shall be met.
 - 10. Alternate testing and inspection programs and protocols shall be allowed when approved by the Code Official.

Add Section R401.2.1

- R401.2.1 Alternative approach for compliance. A Home Energy Rating System ("HERS") Index of 73 or less, confirmed in writing by a Residential Energy Services Network certified energy rater may be used in place of the approach described in Section 401.2 above. Compliance may be demonstrated by use of sampling in accordance with Chapter 6 of the Mortgage Industry National Home Energy Rating Systems Standard as adopted by the Residential Energy Services Network.
- R403.2 Ducts. Ducts and air handlers shall be in accordance with Sections R403.2.1 through R403.2.3.
 - R403.2.1 Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exceptions: Ducts or portions thereof located completely inside the building thermal envelope.

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- 1. Ducts or portions thereof located completely inside the building thermal envelope.
- 2. Supply ducts may be insulated to a minimum of R-6 when one or more of the following conditions are met:
 - 2.1 Minimum SEER rating of space heating/cooling system is increased to 15.
 - 2.2 Maximum U-factor is decreased to 0.35 and maximum SHGC is decreased to .022 for all fenestration products.
 - 2.3 Wall cavity insulation minimum R-value is increased to R-19.
 - 2.4 Residential buildings that meet the requirements of Sections R102.1.1 or R405.
 - 2.5 Residential buildings with attic radiant barriers in accordance with ASTMC 1313, installed in accordance with ASTM C1743.

Delete Section R403.9.3 and replace with:

R403.9.3 Motors with a total horsepower of one or more for pools and in-ground permanently installed spas shall have the capability of operating at two or more speeds with a low speed having a rotation rate that is no more than one-half of the motor's maximum rotation rate and shall be operated with a pump control with the capability of operating the pump at two or more speeds. Residential pool pump motor controls that are sold for use with a two or more speed motor shall have a default circulation speed setting no more than one-half of the motor's maximum rotation rate. Any high speed override capability shall be for a temporary period not to exceed one twenty-four hour cycle without resetting to the default setting.

SECTION 310. 2012 INTERNATIONAL EXISTING BUILDING CODE

The 2012 International Existing Building Code has been adopted as the Existing Building Code for Maricopa County with no amendments.