

2015 IRC SIGNIFICANT CODE CHANGES

| <u>Section</u> | <u>Title</u> | <u>Type of Change</u> | <u>Description</u> | <u>Change from 2012</u> | <u>Estimated Cost Impact</u> | <u>Summary</u> |
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| R301.2.1.1.1 | Sunrooms | New | Gives a standard to comply with and categorizes them by wall type and whether conditioned. | No address in previous editions. | Small if any as most manufacturers comply with the standards already. | Recognition that these structures need be structurally sound and safe. |
| Table R301.2(1) | Climatic and Geographic Design Data | Increased Safety | Adds Special Wind Region & Windborne Debris Zone to an existing table. | Recognizes an increased need in areas where historical data indicate a danger. | None as there is no such data in Paradise Valley. | More significant in coastal regions and some mountainous area including Northern Arizona. |
| Table R301.2.1.5.1 | Ultimate Design Wind Speed for Topography | Clarification | Adjusted an existing table for the new wind speed and then modified the effect of local slope conditions. | Similar to the existing table. | Potentially a small increase to compensate for the increased wind speed. | Engineers will have to use these new numbers in the lateral designs when near topographic changes. |
| R302.1 | Exterior Walls | New Option | Roof projections $\geq 2'$ to $< 5'$, fire blocking at rafters is now allowed as well as 1 hour membrane on the underside. | Roof projections $\geq 2'$ to $< 5'$, fire blocking at rafters is now allowed as well as 1 hour membrane on the underside. | No increase in construction cost and possibly a savings may be realized. | This will give builders more flexibility with the construction of roof overhangs at property lines. |
| Table R302.1(1) & (2) | Exterior Wall Table | New | Reorganized Table that allows penetrations at walls 3' from property line | Reorganized Table that allows penetrations at walls 3' from property line | No cost impact | Allows penetrations at walls less than 5' from the property line. |
| R304.1 | Habitable Room Area | New | Reduced habitable room area to 70 square feet | Reduced habitable room area to 70 square feet | No cost impact | Good change, reduces the minimum room area by 50 square feet. |
| R314 | Smoke Alarms | Clarification and New | Reorganized section to more readable format. Allows battery Smoke Alarms in remodel projects | Reorganized section to more readable format. Allows battery Smoke Alarms in remodel projects | Remodeled homes will see a cost savings as battery alarms are now accepted in lieu of hard wire and interconnection | Good change, battery alarms can be as reliable as hard wired. |
| R315 | Carbon Monoxide Alarms | Clarification and New | Reorganized section to more readable format. Allows battery Carbon Monoxide Alarms in remodel projects | Reorganized section to more readable format. Allows battery Carbon Monoxide Alarms in remodel projects | Remodeled homes will see a cost savings as battery alarms are now accepted in lieu of hard wire and interconnection | Good change, battery alarms can be as reliable as hard wired. |
| R324 | Solar Energy Systems | New | Moved the requirements for access and pathways from the International Fire Code into the IRC. | New Section | No cost impact as this was being required by the IFC. | Makes all the requirements for solar PV installations available in one book. |
| R325 | Mezzanines | New | Moved the requirements for access and openness from the International Building Code into the IRC. | New Section | Potential small cost increase in "lofts" for children as free standing ladders are not allowed. | Safer solution for those small lofts. |
| R326 | Swimming Pools, Spas and Hot Tubs | New | Requires that the design and construction of pools and spas comply with the International Swimming Pool and Spa Code | New Section | unknown | Since the ISPSC started as the Queen Creek Code it should be similar to existing codes. |
| R403.1.1 | Minimum Footing Size | New Technology | Expands footing types into three categories, in some cases allows a smaller footing. | Expands footing types into three categories, in some cases allows a smaller footing. | Most cases will see a reduction in the size of the footings so a savings will be realized. Multi story homes may see a slight increase in minimum footing size. | Good change, reduces footing sizes for most homes. |
| Tables R502.3.1(1) & (2) | Floor Joist Spans and Tables | Clarification and New | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | New design values for Doug-fir and hemlock remain unchanged. Cost impact will increase in longer spans while some will decrease with shorter spans. | This brings the IRC in line with standards. |

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| Tables R802.4(1) & (2) | Ceiling Joists and Rafter Tables | Clarification and New | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | New design values for Doug-fir and hemlock remain unchanged. Cost impact will increase in longer spans while some will decrease with | This brings the IRC in line with standards. |
| Tables R802.5.1(1) to (9) | Ceiling Joists and Rafter Tables | Clarification and New | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | Reorganized span tables in some cases reduce allowable spans and in others, increases allowable spans | New design values for Doug-fir and hemlock remain unchanged. Cost impact will increase in longer spans while some will decrease with | This brings the IRC in line with standards. |
| N1101.5.1 | Thermal Envelope depiction | New requirement | The building's thermal envelope shall be represented on the construction drawings. | Not specifically required in 2012. | No cost impact. | This information is required on plans so it can be determined where the thermal envelope is located. This will help plan review, inspections, and contractors. |
| N1101.13 | Compliance Paths | New performance path | The compliance paths have been clarified. There is a prescriptive path, a performance path with "Mandatory" requirements and an Energy Rating Index (ERI) path. | The 2012 required compliance with the mandatory provisions and either the prescriptive or performance path. | No cost impact. | This new section adds flexibility and clarification. |
| N1101.14 | Permanent Energy Certificate | Clarification | The code requires the permanent certificate to be placed on a wall in proximity to the furnace, in a utility room, or in another approved location inside the building. | Previous requirement was to place the certificate in the electrical panel. | No cost impact. | This allows the permanent certificate to be placed in locations other than the electrical service panels which are usually outdoors subject to weather related damage. |
| N1102.1.3 | R-value Computation - Insulated Siding | New technology | The labeled R-value for insulated siding must be reduced by R-0.6 for calculation purposes. | In the 2012 IRC only insulation products can contribute to the overall R-value. | Cost savings. | Insulated siding products have permanent insulation and can now be considered as continuous insulation, with a reduction factor applied. |
| N1103.3 | Duct Sealing and Testing | Clarification | The duct sealing and testing provisions have been reorganized for clarity. | The significant change places the duct pressure testing methods and the maximum air-leakage rates in separate sections. | Possible cost savings in the event of a duct leakage test failure. | The major change is that duct leakage is made prescriptive, which would allow for alternative performance measures in the case of a test failure. |
| N1103.5 P2905 | Heated Water Circulation and Temperature Maintenance | New technology | Hot water circulation systems must be provided with a circulating pump. The control shall be automatic and accessible. | Allowed for continuously-operating recirculation pumps. | Cost savings. | Controls turn off the circulation system if there is no demand for hot water. This change saves energy. |
| N1105.4.2 | Performance Method - Compliance report | Verification | A compliance report on the proposed design shall be submitted with the application for the permit and at final inspection. | Only one compliance report is required to be submitted with the permit plans. | No cost impact. | The second report based on the as-built conditions will provide verification that the proposed design was met. |
| N1106 | Energy Rating Index Compliance Alternative | New technology | This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis. | New code provision. | Cost savings. | This new section will allow the use of HERS scores. The 2015 score of 52 is significantly lower than the 2012 score of 73. |
| N1107.6 | Historic Buildings | Clarification | Allows historic buildings to be exempted from the energy requirements under some circumstances | Current code exempts any historic building on a register from the requirements of the code. | Possible initial cost increase with long-term energy savings. | This change will lead to increased efficiency for any historic buildings undergoing alterations or restoration without harming the building. |
| M1305.1.3.1 | Electrical Requirements | New | Requires that exposed lamps in attics be protected from damage by location or lamp guards. | Current code requires the light but no protection. | Minor cost as the lamp guard is generally less than \$10 and only a couple are required per house. | Good change as the safety is increased at little cost. |
| M1502.4.4 & 4.5.3 G2439.4 | Dryer Exhaust Duct Power Ventilators | New | DEDPV allowed if listed to UL 705 | DEDPV allowed if listed to UL 705 | No cost impact for dryer duct runs greater than 35'. | This will aid in the design and installation of long dryer vents. |

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| M1502.4.6 G2439.7.5 | Dryer Duct Length Identification | Clarification and New | Label of duct length only required if the duct exceeds 35' in length | Every concealed dryer duct required a label. | Slight cost reduction on shorter dryer duct runs. | Every dryer can push the air 35' so no label makes sense. |
| M1506.2 | Exhaust Ducts | Clarification and New | New table establishes maximum exhaust duct lengths. | Not addressed previously. | Potential increase in cost if a larger duct is required. | Increase efficiency and moisture reduction. |
| G2404.11 | Condensate Pumps | New | Condensate pumps must be connected to the appliance such that if the pump fails the appliance will not operate. | Not previously addressed. | Minor cost increase at the front end but a major savings if the pump fails. | Potential saving over the life of the appliance as damage from condensate is minimized. |
| G2411.1.1 | Electrical Bonding CSST | Clarification New | Reorganizes bonding for CSST gas tubing and establishes maximum lengths and listing of connectors. | Previously the requirement was there but it was unclear as to how it was to be accomplished. | Little cost increase for those tradesmen that were doing it correctly. | Good change as it makes things clearer. |
| G2414.6 | Plastic Pipe, Tubing and Fittings | Clarification | Specifically states that PVC and CPVC are unacceptable materials for gas supply. | The listing of the ASTM numbers of allowed materials wasn't enough. | No cost impact as these materials weren't allowed and were never used anyway. | More definitive language can reduce the potential for mistakes and potential failures. |
| G2439.7 | Clothes Dryer Exhaust Duct Installation | Clarification New | Clothes dryer exhaust duct installation minimum requirements are clearly delineated. | Previously a duct was required but no guidance of how it was to be installed appeared in the code. | No cost increase for those tradesmen that were installing them correctly. | Good change to give some guidance on a correct installation. |
| P2502.1 | Existing Building Sewers | Clarification | Requires inspection of the interior of existing drainage piping under concrete slabs when entire sanitary drainage piping is changed. | Previously the visual inspection could be from the outside of the pipe. | Increase in installation cost will be realized in remodels. | Not a huge impact as the piping is usually replaced anyway. |
| P2801.6 | Water Heater Pan | New | Plastic pans are allowed but not beneath gas-fired water heaters. | Only galvanized pans were allowed. | Potential savings for electric water heaters and no cost change for gas-fired ones. | Common sense change both to allow plastic and to prohibit them under a gas flame. |
| P2901 | Potable Water | Clarification New | Signage and color requirements where a nonpotable water system is used. | Not previously addressed. | No cost impact. | Significant safety issue is addressed in those instances where an alternative water system is used. |
| P2910 to P2913 | Nonpotable and Reclaimed Water Systems | New | Requirements for the installation of Nonpotable and reclaimed water systems. | Not previously addressed. | Not required systems so no cost impact. | Significant safety issue is addressed in those instances where an alternative water system is used. |
| P3009 | Subsurface Landscape Irrigation Systems | Renamed and Expanded | What was Gray Water Recycling Systems has been renamed and the requirements clarified. | Too complicated to use before this is an attempt to be more clear and more understandable. | Unknown. | An improvement but still cumbersome. |
| E3901.9 | Required receptacle outlets; garages | New | Now requires a separate circuit to feed garage receptacles with no other loads, must have one receptacle per vehicle space | Previous code did not require this | Increase in installation cost will be realized, \$200 to \$300 | This effort is to prewire a garage for the possibility of electric vehicle charging. |
| E3902.8 | Bathtub or shower stall receptacles | New | Requires outlets within 6' of a tub or shower shall have GFCI protection | Previous code did not require this | No cost impact. | These were already protected under other provisions. |
| E3902.9 | Laundry areas | New | Requires outlets in a laundry area to have GFCI protection | Previous code did not require this | Increase in installation cost will be realized. \$20 to \$50 | Expanding the use of GFCI's has been proven to decrease shock hazards |
| E3902.10 | Dishwasher branch circuit | New | Requires outlets supplying a dishwasher to have GFCI protection | Previous code did not require this | Increase in installation cost will be realized. \$20 to \$50 | Expanding the use of GFCI's has been proven to decrease shock hazards |
| E3902.16 | Arc-Fault Protection | Expanded | Now requires kitchen and laundry outlets to be Arc-Fault protected | Previous code did not include the kitchen or laundry receptacles | Increase in installation cost will be realized; \$150 to \$200 | Only Siemens makes an AFCI/GFCI receptacle so this will get their product more widely used. |