

UPDATING THE 2018 BUILDING CODES



City of Norman
Business and Community Affairs
12/01/2022

STATUS OF CODES IN OKLAHOMA

- The Oklahoma Uniform Building Code Commission (OUBCC) adopts the minimum code for all jurisdictions in Oklahoma.
- Municipalities are required by statute to adopt these minimums and enforce them in a timely manner.
- September 14th 2021, the OUBCC adopted the 2018 I-Codes and 2017 NEC as the minimum standard for all commercial buildings.
- Effective September 14th 2022, the OUBCC informed the municipalities that the minimum standards for One and Two Family Dwellings/Townhouses will be the 2018 International Residential Code with modifications provided in their updated rules. Additionally the 2020 NEC was adopted as the minimum standard for Electrical Work.

UPDATING THE CODES IN NORMAN

- To stay in compliance with the state statute the City of Norman will need to update our codes to the 2018 I-Codes with modifications by the OUBCC.
- The base 2018 Code can be found on the ICC website [here](#).
- The rule changes by the OUBCC can be found on their website [here](#).
- An unofficial compilation of the state changes and base code can be found on UpCodes website [here](#).

UPDATING THE CODES IN NORMAN(CONT.)

Staff has been on a continual outreach campaign over the past year to inform the Building Community and Public about the pending Code Changes. The following are some of those highlights.

- Staff hosted a code review/change meeting on 7/28/22 to discuss significant changes to the code and seek input from the building community and public.
- A second code review/change meeting was held on 8/16/22 to complete discussions about significant changes to the code.
- Provided to meeting attendee's and on our website is a "Code change request form" if anyone desired to submit a change to the code for consideration.
- Staff Recorded a Webinar and linked it at the front of the Development Services Website with the significant changes to the code so that anyone interested could see an overview of the coming code changes.
- Staff provided by email outreach to Builders, Designers, Trade Contractors and others who pulled permits in the prior calendar year detailed list of the significant changes to the various codes as well as the code change request form.
- Inspection and Office Staff continually educated Builders/Designers that the Codes would be updating to the 2018 building codes and when interested offered resources to these individuals.

NOTABLE CHANGES (FEES)

Update to the Base and Reinspection Fee.

- Currently the Base/Re-inspection Fee is \$25.00.
- This fee hasn't been updated since 2006.
- Proposing making the base/reinspect fee \$35.00. (keeps the fee in-line with inflation)
- In Calendar Year 2021 we resulted over 27,000 Inspections.
- 3,200 of these inspections were inspections with a Re-Inspect Fee.
- In 2021 Staff issued over 4900 Trade Permits of these over 2100 had the Base Fee. These are typically stand alone permits such as Miscellaneous Electrical Work, Changing out of Plumbing items (water/sewer lines, water heaters), Heat and Air Work like Duct Replacements, Irrigation Sprinkler Systems.

Establish an after hours Inspection Fee.

- Proposing \$200 minimum fee for two hours of inspection time and \$75.00 for each hour thereafter.

Updating the Code to include the State mandated \$4.00 permit fee obligated by the OUBCC with a .50 administration fee. In the past it was determined this did not have to be in the City's fee schedule but better practice is include it.

NOTABLE CHANGES (FEES CONT.)

| | Reinspect Fee | Base Fee |
|---------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Edmond | \$50 for 1 st reinspection, \$100 subsequent reinspection | \$30 min. but they have qualifiers for added fixtures/appliances etc. |
| Oklahoma City | \$38.50 min. but this can be more for trades i.e. plumbing reinspection \$42.00 | \$28.00 but they have qualifiers for added fixtures/appliances etc. |
| Moore | \$30.00 | \$30.00 But they have qualifiers for added appliances/fixtures. |
| Yukon | \$30.00 for the 2 reinspection, then \$60.00 per reinspection | \$35.00 Base fee. Their fee structure closely resembles the City of Norman's. |

NOTABLE CHANGES(CONT.) IFC CODE FULLY ADOPTED.

In past code cycles Fire Prevention has adopted the National Fire Protection Association I , Fire Code for existing buildings for annual inspections and separately adopted the International Fire Code for new construction. This was not needed as the IFC adequately address's the topics in the NFPA I and at times create conflicts where a newly build building could be in opposition to another city code.

By having one code for Permitting and Annual Inspections this helps in having the Review Staff and Inspectors on the same page.



NOTABLE CHANGES (CONT.) UNIVERSAL CHANGING STATIONS

Proposing adding to the 2018 IBC (Commercial Code) adding language that requires a universal changing station for projects that require a Family Assisted Bathroom. This would only impact some Assembly and Mercantile Occupants. Examples where it would be required.

- Restaurants with over 450 Occupants
- Church with over 675 Occupants
- Retail with over 3000 Occupants
- Theater or similar with over 570 Occupants

For record this requirement is a part of the 2021 IBC.



NOTABLE CHANGES (CONT.) MANUAL J AND S FOR MECHANICAL SYSTEMS TABLE R301.2(1), N1103.7, M1401.3

While the code has always obligated heat and air systems to be designed per Manual J and S it was never a requirement that this submittal be obligated by the AHJ. The code has been updated to require the AHJ to publish the climate conditions in Table R301.2(1). The OUBCC went further and requires the AHJ to require documentation demonstrating compliance that the system is being designed in accordance with Manual J and S before issuing a mechanical permit for NEW residential permits. This will be an impactful change to our permitting process and for the mechanical contractors.

N1103.7 (R403.7) Equipment sizing and efficiency rating (Mandatory). Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed. Documentation demonstrating compliance with this section is to be provided of the authority having jurisdiction at the time a Mechanical Permit is required on new one-and two-family dwellings and townhouses.

M1401.3 Equipment and appliance sizing. Heating and cooling equipment and appliances shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling methodologies. Documentation demonstrating compliance with this section is to be provided of the authority having jurisdiction at the time a Mechanical Permit is required on new one-and two-family dwellings and townhouses.

| MANUAL J DESIGN CRITERIA* | | | | | | | |
|--------------------------------|-----------------------|-----------------------|--------------------|----------------------------|---------------------------|----------------------------|--------------------------------|
| Elevation | Latitude | Winter heating | Summer cooling | Altitude correction factor | Indoor design temperature | Design temperature cooling | Heating temperature difference |
| — | — | — | — | — | — | — | — |
| Cooling temperature difference | Wind velocity heating | Wind velocity cooling | Coincident wetbulb | Daily range | Winter humidity | Summer humidity | — |
| — | — | — | — | — | — | — | — |

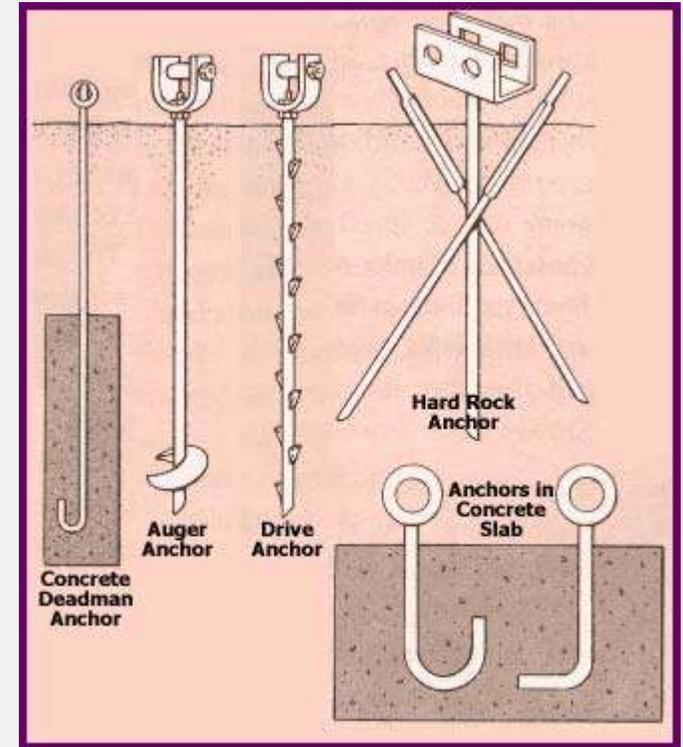
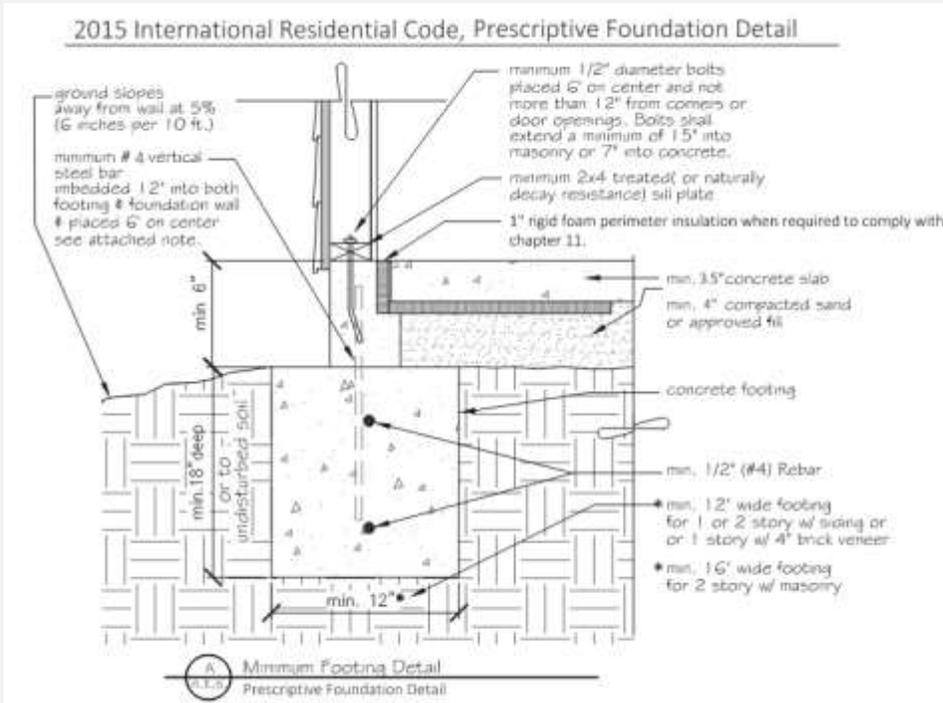
NOTABLE CHANGES (CONT.) FOUNDATION EXCEPTIONS.

Prior adoptions of the Residential Code allowed for exemption of unoccupied accessory buildings to be exempt from the foundation requirements in the code. But were silent regarding small occupied structures. The language has been cleared up to reflect that small unoccupied structures less than 600 square feet and occupied structures less than 400 square feet are exempt from the foundation requirements of the residential code. But still must have some connection methods to the ground or footing/slab.

The clarification allows for economically feasible small accessory type storage buildings and limited small occupancies like a small workshop or tiny home to be built without a prescriptive footing or engineering.



NOTABLE CHANGES (CONT.) FOUNDATION EXCEPTIONS.



Prescriptive Code Foundation minimums.

Fastening solutions but really only allowed by code with engineering or design work.

NOTABLE CHANGES (CONT.)

CHAPTER II ENERGY CODES

The OUBCC updated the State wide minimum ERI to a 64. Recently the City of Norman updated our score benchmark for the Energy Efficient Credit program to a benchmark of 57.

Table N1106.4 (R406.4) Maximum Energy Rating Index

| CLIMATE ZONE | ENERGY RATING INDEX * |
|--------------|-----------------------|
| 1 | 57 |
| 2 | 57 |
| 3 | 57 64 |
| 4 | 62 |
| 5 | 61 |
| 6 | 61 |
| 7 | 58 |
| 8 | 58 |

Supporting information: This updates the ERI for the performance path to be more in line with prescriptive amendments proposed to the OUBCC

City of Norman's Energy Efficient Credit HERS/ERI Program with a 57

| | |
|------------|-----------------------------|
| 47 or less | Builder pays no permit fees |
| 48 | Pays 05% of permit fees |
| 49 | Pays 10% of permit fees |
| 50 | Pays 15% of permit fees |
| 51 | Pays 20% of permit fees |
| 52 | Pays 25% of permit fees |
| 53 | Pays 30% of permit fees |
| 54 | Pays 35% of permit fees |
| 55 | Pays 40% of permit fees |
| 56 | Pays 45% of permit fees |
| 57 | Pays 50% of permit fees |

OUBCC Current ERI

PROPOSED COMMENT FORM ICE BARRIER AT EAVES OF HOMES

We had an individual submit a Code Change request form. Asking to modify the code to require Ice Barrier on the Eave (soffit) of homes for roofs that were being re-roofed but not new construction.

See code section and narrative as provided.

R908.3.1 Ice barriers. Roof replacement shall include ice barriers to be installed for asphalt shingles, metal roof shingles, mineral surfaced roll roofing, wood shingles and wood shakes. The ice barrier shall consist of not fewer than two layers of underlayment cemented together, or a self-adhering polymer-modified bitumen sheet shall be used in place of normal underlayment and shall extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the warm wall of the building. On roofs with slope equal to or greater than 8 units vertical in 12 units horizontal, the ice barrier shall also be applied not less than 36 inches (914 mm) measured along the roof slope from the eave edge of the building.

Exception: Detached accessory structures not containing conditioned floor area

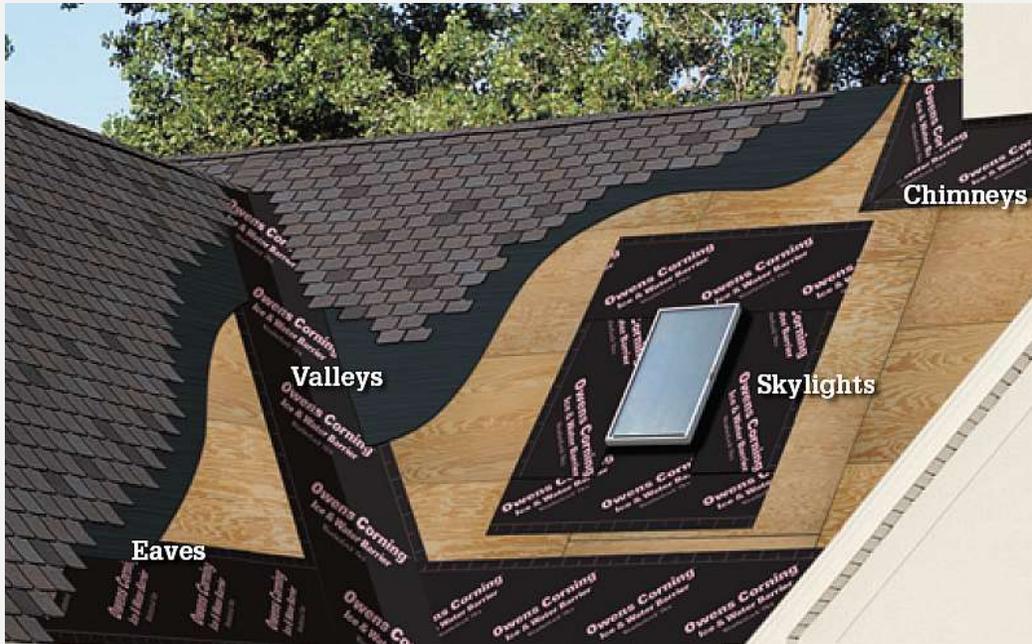
Supporting Information

The entire State of Oklahoma has seen a history of periodic ice damming that causes water penetration to roofing shingles and extensive water damage inside walls and ceilings of residential homes. The Oklahoma Roofing Contractors Association and other Oklahoma professional roofing contractors believe that the installation of the ice barrier when reroofing residential houses will prevent ice dam leaks and avoid the interior damages caused by water penetration from ice damming.

PROPOSED COMMENT FORM (CONT.) ICE BARRIER TABLE 301.2(I) AND 905.1.2

Roofing

- The OUBCC has determined that ice barrier's are not required in the State of Oklahoma at the eaves.
- The OUBCC added into the code to add a 36" ice barrier centered on all valleys.
- The OUBCC added into the code a 36" ice barrier at pitch changes. This should be centered at the pitch change.
- These OUBCC determinations were made after a Technical committee of roofers/builders met for months and further considered by the State Commission that recommends adoption of the code.
- Oklahoma City recently had a two part discussion about this very topic as well and ultimately determined not to require the Ice Barrier at the eave of homes.
- While I obviously cannot say Ice Damming could never occur most existing and new construction do not have ice barrier's installed at the eave and the reporting of cases with these issues are minimal.



QUESTIONS/COMMENTS/DIRECTION?

Any questions?

Comments?

Staff Direction?

