



Town of Camp Verde Vision Statement

"Camp Verde is welcoming, a safe community, a vibrant economy, thoughtfully growing, and offering an exceptional quality of life."

**AGENDA
TOWN OF CAMP VERDE
WORK SESSION
MAYOR AND COUNCIL
473 S. MAIN STREET, SUITE 106
WEDNESDAY, JANUARY 28, 2026 at 5:00 P.M.**

ZOOM MEETING LINK:

<https://us02web.zoom.us/j/83448088810?pwd=OmaKIUxoIJpmqvGHZJEbftX5bHgNT.1>

one Tap Mobile: 1-253-215-8782 or 1-346-248-7799

Meeting ID: 834 4808 8810

Passcode: 457256

Note: Council member(s) may attend Council Sessions either in person, by telephone, or internet/video conferencing.

- 1. Call to Order**
- 2. Roll Call.** Council Members Brian Bolton, Robert Foreman, Robin Godwin, Jessie Murdock, Patricia Seybold, Vice Mayor Wendy Escoffier, and Mayor Marie Moore.
- 3. Pledge of Allegiance**
- 4. Presentation and discussion of sewer rate proposal in response to public requests for metered or usage-based billing, including evaluation of fixture-based rates and alternative revenue options.** Staff Resource: Utilities Director Lisa Vaughan and Utilities Analyst Kristen Gressley. Pg. 3
- 5. Presentation and discussion regarding changes to the 2024 International Building Code for future adoption consideration.** Staff Resource: Chief Building Official Roxanne Jasman. Pg. 27
- 6. Adjournment**

Note: Upon a public majority vote of a quorum of the Town Council, the Council may hold an executive session, which will not be open to the public, regarding any item listed on the agenda but only for the purpose of discussion or consultation for legal advice with the Town Attorney as permitted by A.R.S. § 38-431.03(A)(3). Any other executive sessions will be separately included on the agenda above if an executive session will be held at the meeting.

Pursuant to A.R.S. §38-431.01 Meetings shall be open to the public - All meetings of any public body shall be public meetings and all persons so desiring shall be permitted to attend and listen to the deliberations and proceedings. All legal action of public bodies shall occur during a public meeting. Pursuant to Town Code, Section 2-3-7.1 the Mayor shall call for a vote of the Council to allow the meeting to continue past the deadline of 10:00 p.m. The Town of Camp Verde Council Chambers is accessible to persons with disabilities. Those with special accessibility or accommodation needs, such as large typeface print, may request these at the Office of the Town Clerk at 928-554-0021.

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at the Town of Camp Verde and Bashas on January 22, 2026 at 6:00 p.m. in accordance with the statement filed by the Camp Verde Town Council with the Town Clerk

Leah Rhodes

Leah Rhodes, Town Clerk

**Meeting Date:** January 28, 2026**Agenda Item Type:**

- | | | |
|---|--|---|
| ☐ Consent Agenda | ☒ Informational Presentation | ☒ Discussion Item |
| ☐ Action/Decision Item | ☐ Executive Session Request | ☐ Other: |

Requesting Department: Utilities**Staff Resource:** Utilities Director Lisa Vaughan & Utilities Analyst Kristen Gressly

Agenda Title: Presentation and discussion of sewer rate proposal in response to public requests for metered or usage-based billing, including evaluation of fixture-based rates and alternative revenue options.

Attached Documents:

- Sewer Rate Proposal

Estimated Presentation Time: 30 minutes**Estimated Discussion Time:** 20 min**Reviewed By:**

- | | | | | |
|--|---|--|----------------------------------|---------------------------------|
| ☒ Town Manager | ☒ Legal | ☐ Risk Management | ☐ Finance | ☐ Other: |
|--|---|--|----------------------------------|---------------------------------|

Financial Review (if applicable):

- | | | | | |
|---|------------------------------|-----------------------------|---|---------------------------------|
| • Funding Source / GL Account Number: N/A | | | | |
| • Approved in the FY26 Budget? | ☐ Yes | ☐ No | ☒ N/A | ☐ Other: |
| • Is this an approved CIP Project? | ☐ Yes | ☐ No | ☒ N/A | ☐ Other: |

Background Information:

The purpose of this presentation is to provide Council with a response to the Public's request for metered or usage-based sewer rates to replace the existing fixture-based billing structure. Concerns have been raised about the equity of fixture-based versus usage-based billing and the current monthly rate cost being too high. The proposal is included with a presentation, which addresses these concerns, explains why fixture-based billing was selected over usage-based in 2023, and provides possible options for staff moving forward.

This presentation is to be a discussion to help further guide staff on the next possible steps to take in addressing public concerns and not as an action/decision item. Whatever is discussed and option selected (if any) will be used to direct staff, not to change the Town's rate and fee schedule or anything else.

Connection to the [FY25-FY30 Strategic Plan](#)

The Sewer Rate Proposal presentation to the Council provides education to the community on past rate decisions and what is required to operate a wastewater system. There is a potential future growth benefit for reevaluating the current rate and fee schedule looking at both offsetting operational costs and creating a more equitable system.



Town Council Agenda Information Memorandum

Question(s) before the Council:

- Which option would the Council like to proceed with in FY27?
- Does the Council want to engage in a new usage-based rate study?
- Is the Council interested in reevaluating sewer fees for FY27? If so, does the Council support completing a study to determine market capacity and septage fees?

SEWER RATE PROPOSAL

JANUARY 2026



Introduction



Overview

This Rate Proposal is in response to the Public's request for metered or usage-based sewer rates to replace the existing fixture-based billing structure. This proposal will review the background and reasoning for fixture-based rates. This report will then outline three avenues for moving forward:

Option 1 discusses maintaining the Status Quo and continuing with the existing fixture-based rate schedule with no changes.

Option 2 analyses the potential and impact of moving to a Usage-based rate schedule.

Option 3 recommends amending the current fee and rate structure to better suit needs, this includes increasing Capacity fees and Septage rates, which are low compared to market rate, thus relieving the revenue burden on residential user rates.



Background

Currently, the Town of Camp Verde bases its sewer rates on fixture count. The decision to utilize fixture count in determining customer rates derived from two factors.

When the Town first acquired the Camp Verde Sanitary District, they did not have access to their customers' water usage, because they did not own or operate the Town's primary water company (previously the Camp Verde Water System). Because there was no information on water usage when the Town first acquired the Sanitary District, the Town had to use fixture-based rates, following Arizona Administrative Code (AAC) Title 18, Chapter 9.

After the Town acquired the Camp Verde Water System in 2022, the possibility of basing fees on usage became a reality. Thus, when the Rate Study was conducted in 2023, by Economists.com to re-evaluate rates and fees, it included usage-based (or volume-based) rates as an alternative to fixture-based rates. Despite the fact that usage-based rates were presented as an option and compared against fixture-based rates, the study presented usage-based rates that were far less appealing than the fixture-based rates, so it was decided that the Town would continue with rate increases under a fixture count based rate schedule.

In summary, the Town had the opportunity to go with usage-based rates in the rollout of the rate increase proposal yet still elected to continue with fixture count for sewer rates. For this reason, this report will not only re-visit their proposal for usage-based rates but will also explore a new rate schedule based on usage which is more agreeable. In the next section, Economists.com previously proposed usage-based rates will be compared and contrasted to the current fixture count rate schedule to better understand the Town's current and past options and positions.

Reasoning

There are a few factors driving the push for change from fixture count to usage-based rates. Some of the major factors include:

- The usage or volume-based rates presented in the 2023 proposal were much higher and more burdensome to the average customer than fixture rates.
- It would require the Town to change the way it bills rates for sewer (billing overhaul), requiring metered usage to be applied to sewer and imported from water to sewer. Likely would require new software and/or more staffing. Would be an additional expense on the billing end, thus increasing overhead.
- Not all sewer accounts have water accounts, meaning there's no usage information available to charge those customers appropriately. These customers are on private, unmetered wells. Roughly 400 customers fall in this category, and they would be charged based on fixture count as a result.*
- Water usage includes any water going through the meter, **this could include water used in landscaping or other usage that doesn't end up down the drain.** The Town has no way of determining types of water usage, so customers would pay for water in and equivalent out.*

**Note: There was mention of using winter average usage to remove landscaping from the equation. A counter point is that the Town has many snowbirds or similar, meaning their winter usage could be zero but that would not reflect their actual usage when they're in Town.*



Option 1: Status Quo



The first option is for sewer billing to remain unchanged. The fixture-based rate schedule that the Town has already adopted, not only went through rigorous public and council approval but also continues to meet the financial requirements for operating the Town's wastewater services.

This option, however, has received negative feedback from sewer account holders suggesting that the fees are either too high or inappropriate because they are not equitable.

The chief complaint being that a low fixture count household with a large family pays less than a high fixture count household with only one person.

One question to ask is, are account holders concerned about **lack of equity** or about the **rates being too high**? The answer to this question is important for determining the appropriate path forward - and the path that will be truly satisfactory to the public.

If the answer is **equity**, then *Option 2: Usage-based Rates* is likely the answer and will be explored in more detail under that section.

If the answer is **lower rates**, then *Option 2: Usage-based Rates* is likely not the answer, whereas *Option 3: Make Amendments* is more likely the solution. Under *Option 3*, the Town can consider several other ways to lower user fees for residential customers while still bringing in adequate revenue for operations; these include: lower average rates and low-income discounts offset by increased Capacity fees and increased Septage dumping rates. These will be explored in more detail in the *Option 3* section.



Option 2: Usage-Based Rates



This section explores the impact and feasibility of usage-based rates. It includes a review of the 2023 usage-based rate proposal developed by Economists.com. It covers an analysis of the pros and cons of usage-based rates. It also presents an alternative rate schedule for consideration and comparison.

2023 Usage-Based Proposal vs Fixture Count (Economists.com)

Below is a chart, taken from the 2023 Report presented by Economists.com, comparing fixture count and usage-based rates:

Wastewater Rate Plan

Fixture Units vs Volume Charge

	Current	Effective Oct-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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Wastewater Rates

Scen I -- Status Quo -- Fixture Unit

Residential	\$	2.90	\$	3.25	\$	3.64	\$	3.93	\$	4.09	\$	4.17
Non-Residential		4.51		5.06		5.66		6.12		6.36		6.49

Scen II -- Volume Based

Monthly Minimum Charge	\$	53.50	\$	60.00	\$	67.20	\$	72.58	\$	75.48	\$	76.99
Volume Rate/1,000 Gal		8.50		9.25		10.36		11.19		11.64		11.87

*Note: The Report from 2023 included several options for fixture-based rate schedules, the fixture-based rate schedule in the above chart **was not the one the Town adopted**. The 2023 Report, however, **only presented one usage-based rate schedule**, which is reflected in the chart above.*

Below is the officially adopted fixture-based rate schedule, for reference:

Water Rates						
Monthly Minimum Charge	2022-2023	2024	2025	2026	2027	2028
5/8" x 3/4" Service	\$23.75	\$27.55	\$31.95	\$34.85	\$35.90	\$37.00
1" Service	\$50.00	\$58.00	\$67.30	\$73.35	\$75.55	\$77.80
1 1/2" Service	\$68.00	\$68.00	\$75.00	\$165.00	\$169.95	\$175.10
2" Service	\$175.00	\$203.00	\$235.50	\$256.70	\$264.40	\$272.35
3" Service	\$185.00	\$214.60	\$248.95	\$271.35	\$379.50	\$287.90
4" Service	\$225.00	\$261.00	\$302.75	\$330.00	\$339.90	\$350.10
6" Service	\$350.00	\$406.00	\$470.95	\$513.35	\$528.75	\$544.60
8" Service	\$600.00	\$696.00	\$807.35	\$880.00	\$906.40	\$933.60
<i>Rate per 1,000 gallons</i>						
1-5,000	\$3.35	\$3.35	\$3.90	\$4.25	\$4.40	\$4.55
5,001-10,000	\$3.35	\$4.00	\$4.65	\$5.05	\$5.20	\$5.35
10,001-50,000	\$3.35	\$5.50	\$6.40	\$7.00	\$7.20	\$7.40
50,001 and <u>Above</u>	\$5.70	\$7.00	\$8.10	\$8.85	\$9.10	\$9.35
Wastewater Rates						
<i>Rate per Fixture Unit</i>	2022-2023	2024	2025	2026	2027	2028
Residential	\$2.90	\$3.45	\$4.10	\$4.75	\$4.85	\$4.95
Commercial	\$4.51	\$5.35	\$6.35	\$7.35	\$7.50	\$7.65
Residential Wastewater Rates capped at \$85.00 per month.						

To put the above charts into context, a sample of six existing customers was taken. This sample includes two low fixture count customers, one with higher water usage and one lower; two mid-range fixture count customers, one higher water usage and one lower; and two high fixture count customers, one with higher water usage and one with lower.

This specific sample was selected for the purposes of demonstrating the effect of each proposed rate structure on various categories of customers, providing a more comprehensive overview of the real impact. Jan-2025 and Jan-2026 are the only rates used, since they are the most relevant.

Sample of (6) Customers demonstrating Fixture Count vs Usage-Based Rates:

	Jan-2025 (Fixture)	Jan-2025 (Usage)	Jan-2026 (Fixture)	Jan-2026 (Usage)
Customer 1 1300 gal - 9 units	\$36.90	\$87.13	\$ 42.75	\$90.61
Customer 2 4100 gal - 9 u.	\$36.90	\$118.46	\$ 42.75	\$123.20
Customer 3 4200 gal - 18 u.	\$73.80	\$119.59	\$85.00	\$122.04
Customer 4 6700 gal - 18 u.	\$73.80	\$147.55	\$ 85.00	\$153.47
Customer 5 1400 gal - 24 u.	\$ 85.00	\$88.25	\$ 85.00	\$91.78
Customer 6 7700 gal - 24 u.	\$ 85.00	\$158.74	\$ 85.00	\$165.11

In FY25, fixture count rates are based on \$4.10 per fixture count (Ex: $\$4.10 \times 9 \text{ units} = \36.90); while usage-base rates include a base fee of $\$72.58 + \$11.19 \times \text{usage}/1000$ (Ex: usage of $1300/1000 = 1.3$, $\$72.58 + (\$11.19 \times 1.3) = \$87.13$). In FY26, fixture count rates are based on \$4.75 per fixture count (Ex: $\$4.10 \times 9 = \42.75); while the usage-based rates include a base fee of $75.48 + \$11.64 \times \text{usage}/1000$ (Ex: $1300/1000 = 1.3$, $\$75.48 + (\$11.64 \times 1.3) = \$90.61$). This formula can be adjusted for any usage rate.

****Due to the nature of usage-based rates, it's assumed there will be no cap applied to usage-based bills. This is purely an assumption, the Town can decide if a cap will be applied to the usage-based rate schedule.**

Review

As is evident from the table above, the fixture-based rate structure is less burdensome to the customer and allows for a **rate cap on residential** accounts. Based on the 2023 usage-based proposal, not a single customer was better-off, and in fact, each customer was substantially worse-off, as compared with fixture-based rates, thus the usage-based proposal was reasonably disregarded in favor of the fixture-based rates.

The question remains, would it be possible to create a usage-based rate schedule that is more reasonable and would resolve the equity issue? To answer that question, an average rate per customer needs to be defined as a benchmark for establishing residential rates.

The Town charged its customers a total of \$169,190 for the month of December (2025). This included master metered sewer accounts, commercial, and residential accounts.

This amount over 12-months exceeds \$2.3 million which is comfortably above the recommended \$1.8 million operational needs and also accommodates several years' worth of 3% annual increases. Meaning, the Town takes in more than its predicted and minimum operating revenue threshold in the category of user fees, suggesting two things: (1) \$169,190 is a good total from which to generate an average and (2) there is arguably a small amount of leeway (can go down in overall revenue up to -10%) if needed.

Taking all of this into consideration and removing any master meter or commercial accounts from the equation, $(\$169,190 - \$90,605.40 \text{ charged to commercial and/or master metered accounts}) = \text{approximately } \mathbf{\$78,584.85/\text{month in needed residential revenue}}$.

Of the 1,223 total accounts, 159 are either commercial or master metered, which leaves **approximately 1,064 residential sewer accounts**.

Taking the residential charges and dividing by residential accounts: $\$78,584.85/1064$ equates to **an approximate monthly average of \$73.86 per residential customer**. This is the benchmark for establishing a usage-based fee schedule.

However the Town chooses to restructure its sewer rates in the end, this benchmark of \$73.86 per month (plus or minus 10%) must be kept in mind.

Revisiting the Fixture Count vs Usage-Based Rate Table:

Arguably, the previously proposed usage-based fee schedule seemed higher than necessary. To prove this, averages of the samples of customers from Table 1 will be presented here.

To generate an appropriate average, the fixture count average will be a weighted average - due to the nature of fixture count - and will be based on a generic bell-curve which leans toward the higher end of fixture counts, due to the sewer cap (the cap creates an artificial ceiling meaning the range would normally be higher, so that must be accommodated). The usage-based average will be averaged as normal since usage is purely random and is not necessarily connected to house size.

Note: Bear in mind that these are very general estimates based on a small sample size generated for the sake of comparison, a more thorough review would be required for total accuracy.

Fixture average from the sample taken: assuming that roughly 40% of the population falls on either end of the pricing spectrum with a small percent landing in the lower end of fixture counts (\$36.90), a higher percent landing at the higher end (\$85.00), and most customers being mid-range (\$73.80). Here are the weighted average formula and sum: $[(36.90 \times 0.1) + (73.80 \times 0.6) + (85.00 \times 0.3)] = \mathbf{\$73.47}$.

For the 2023 proposed usage-rate schedule, the average and sum are as follows: $(87.13+118.46+119.59+147.55+88.25+158.74)/6 = \mathbf{\$119.94}$.

Thus, the fixture count rough average is \$73.47 while the usage-based average is \$119.94 in this sample (understanding that usage-based can and will fluctuate month-to-month while fixture count will remain static).

The benchmark average calculated \$73.86 is very close to the fixture count average of \$73.47, but the usage-based average of \$119.94 is 60% higher. This concludes that the 2023 usage-based rate schedule was high. This leads to the first recommendation of this Report, which is, if the Town is interested in doing usage-based rates, then **the Town needs to reevaluate usage-based rates to more appropriately suit its needs**. Because the usage-based rate schedule from 2023 was excessively high, the next section will explore an alternative usage-based rate schedule which both adheres to the financial constraints of operating wastewater services, that is simultaneously competitive or comparable to the current fixture-based rate schedule.

Alternative Usage-Based Rate Schedule

Before getting into an alternative rate schedule, financial parameters must first be defined. The chief constraint in developing a rate schedule is ensuring adequate income to support operational expenses while balancing the spending power of the customers.

The Rate Study by Economists.com in conjunction with the Town's Finance Department, determined that the Wastewater Division had an operational cost of \$1.78 million per annum. With a projected 3% increase in overall expenses each year after 2025.

Another key consideration was an anticipated \$500,000 per year of debt commitment (forecasted \$12.5 million in debt accrual over an estimated 25-year lifespan at an estimated 4% interest per annum).

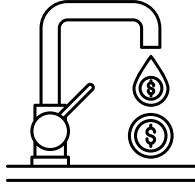
Revisiting the monthly total user fee charges discussed earlier, the Town charged its customers a total of \$169,190 for the month of December (2025). This included master metered sewer accounts, commercial, and residential accounts.

As discussed, this amount over 12-months exceeds \$2.3 million which is comfortably above the \$1.8 million minimum and also accommodates several years' worth of 3% annual increases.

As discussed, of that \$169,190, only \$78,584.85 is required from individual residential accounts. **Leading to the benchmark average of \$73.86 per customer, per month.**

One additional consideration, because two years have passed since the 2023 Rate Study. The study predicted a 1% increase in new services. The reality has been an average 6% increase in services per annum, from 1,092 services in 2023, to 1,223 services in 2025 - some of which include master metered services, such as Sycamore Vista I, which counts as one service but serves over 100 residences.

Meaning, the 2023 rate schedule did not accommodate or predict such a rise in new services. This is important because the more service connections, the more the cost-burden can be shared, reducing the overall average cost per person.



Example of Alternative Usage-Based Rate Schedule

One simple rate schedule for usage-based billing is to mirror water rates but at 150% times the water rates, since wastewater averages about 150% times the cost of water.

This percent came from a very generic calculation: the average independent residential sewer service of \$73.86 divided by the average independent residential water service of \$50.00, which equates to 1.47, rounded up to 1.5 and multiplied by 100 = 150%.

This alternative rate schedule takes existing water rates and multiplies them by 1.5 to generate wastewater rates, see rate table below:

Item	Water (FY25)	Wastewater (FY25)	Water (FY26)	Wastewater (FY26)
Res. Base Fee	\$31.95	\$47.93	\$34.85	\$52.28
Res. Rate/1000 gal	\$3.90	\$5.85	\$4.25	\$6.38
Res. Rate/1000 gal (after 5000 gal) <i>Rate goes up per 1000 gal after 5000 gal used in a month as part of the water conservation incentive</i>	\$4.65	\$6.98	\$5.05	\$7.58

*Note: the water rate schedule includes a water conservation incentive, where usage above 5,000 gallons in a month is charged at a steeper rate, **this does not need to be applied to sewer**. In this example it is applied for the sake of simplicity and to reduce confusion.*

Again, to put these rates into perspective, *table 2* below applies the alternative usage-based rate schedule to the same sample of (6) customers from *table 1* and compares it to the existing fixture-based rate schedule:

	Jan-2025 (Fixture)	Jan-2025 (Alt Usage)	Jan-2026 (Fixture)	Jan-2026 (Alt Usage)
Customer 1 1300 gal - 9 units	\$36.90	\$55.54	\$ 42.75	\$60.59
Customer 2 4100 gal - 9 u.	\$36.90	\$71.92	\$ 42.75	\$78.46
Customer 3 4200 gal - 18 u.	\$73.80	\$72.50	\$ 85.00	\$79.10
Customer 4 6700 gal - 18 u.	\$73.80	\$89.05	\$ 85.00	\$92.72
Customer 5 1400 gal - 24 u.	\$ 85.00	\$56.12	\$ 85.00	\$61.23
Customer 6 7700 gal - 24 u.	\$ 85.00	\$96.02	\$ 85.00	\$100.30

Although this alternative rate schedule might not be exactly what the Town is looking for, it does show very clearly that rates appear more equitable. The average of these rates being: **FY25 = \$73.50** and **FY26 = \$78.73**. These averages are much more aligned with the benchmark of \$73.86 outlined previously and remain competitive with the current fixture-based rate average.

Important Items to Consider

(1) In this illustration, some customers are paying 50%-100% more than previously, while others are paying less.

In this example, only one out of six people are doing better than before (Customer 5), one is roughly the same (Customer 3), and the other four are worse-off (Customers 1, 2, 4, and 6).

If this sample is reflective of future outcomes, then approximately 67% of customers will be worse-off than before, something to consider - however, **further review and consideration are required.**

(2) There is **no sewer cap** under the usage-based fee schedule unless the Town elects to do that. However, a sewer cap might still be seen as inequitable, although it protects customers from excessively high bills.

On the financial side, in this example, a sewer cap of \$85 would drop the average revenue per customer, per month (Ex: in FY25, an \$85 cap would drop the avg. to \$71.01) - not much less, only a 4% loss in overall residential user fee revenue, but still a necessary consideration - from both an equity and financial standpoint.



Option 3: Make Amendments



Option 3 doesn't address equity so much as it addresses lowering overall residential user fee costs. This option can be used with either fixture-based or usage-based rates, depending on which suits the Town and/or customers best.

This option takes the focus off of restructuring residential user fees and highlights opportunities to offset the overall revenue burden on residential users.

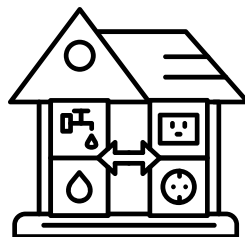
For this, two revenue categories have been highlighted as not carrying their revenue load, forcing customers to have to bear the weight of their financial shortfalls. These are:

1. Capacity fees
2. Septage fees

By adjusting these fees, the overall revenue burden can be reduced for residential users, meaning residential rates could then be reduced proportionally.

Reducing the revenue burden would allow the Town to accommodate two things for its residential users:

1. Reduce residential user rates by percentage of revenue offset.
2. Offer a low-income discount option and pricing schedule which follows State recommended guidelines and poverty thresholds.



Capacity Fees

The Town's Water Capacity Fees were evaluated and amended to meet the impending need for Capital Improvement Projects. The Town's Wastewater Capacity Fees, however, have not experienced the same update or over-haul.

To illustrate the need and justification for amendments to Wastewater Capacity Fees, the Town's current fee schedule will be compared to the City of Cottonwood's Sewer Capacity Fee schedule:

Town of Camp Verde's current Capacity Fee Schedule:

Residential Connection Fees	
Single family residence	\$1,750.00
Multiple family residence	\$1,750.00 per residential unit
New Residential Subdivisions	\$1,750.00 per lot
Commercial Connection Fees	
Hotels, motels, resorts, lodges, hospitals, nursing homes & supervisory care facilities	\$350.00 per room
(Rooms equipped with kitchen facilities shall be treated as single-family residential units)	\$1,750.00 per room
Retail	\$.25 per square foot, \$1,750.00 minimum
Office	\$.50 per square foot, \$1,750.00 minimum
Restaurant, Bar	\$30.00 per seat
Warehouse, Manufacturing	\$.25 per square foot, \$1,750.00 minimum

City of Cottonwood's Capacity Fee Schedule:

Table 4-4 Sewer Capacity Fee by Meter Size	
Meter Size	Fee
¾-inch	\$4,502
1-inch	7,518
1 1/2-inch	14,992
2-inch	23,995
3-inch	45,020
4-inch	75,048
6-inch	150,050
8-inch	240,089
10-inch	345,165

Analysis

Currently, the Town of Camp Verde's Wastewater Division charges less than half the typical residential (Sewer Capacity) fee that the City of Cottonwood charges:

Town of Camp Verde: **\$1,750**

City of Cottonwood: **\$4,502**

The Town also charges virtually the same amount for residential and commercial services, making no significant amendments for larger meter sizes, aside from square footage charges which are nominal:

To put this into context, one of the Town's newer commercial accounts was charged \$1,750 + square footage, equating to \$2,500 in Sewer Capacity Fees. This particular business is on a 2-inch water meter, so while the Town charged a nominal Capacity Fee of \$2,500 to connect to sewer, the City of Cottonwood would have charged \$23,995 in Capacity Fees to that same business. As a result, the Town's wastewater system lost \$21,495 in Capital Improvement revenue off that one business.

It's clear the Town needs to revise its Sewer Capacity Fees to better accommodate its Capital Improvement needs. It's evident, as well, that the Town's Capacity Fees are far below those of other comparable municipalities in the area. It's also important to note that the Town should be differentiating between different meter sizes and charging more for larger meters. By increasing the Capacity Fees and creating a fee schedule based on meter size, the Town will be able to significantly increase its annual revenue and reduce the overall burden on residential users.

The recommendation here is that the Town **re-evaluate Sewer Capacity Fees first**, pushing for the adoption of these amended Capacity Fee Rates, because they will help support and fund Capital Improvement Projects while simultaneously reducing the burden on residential account holders.

From the 2023 Rate Study, the Town's Finance Department determined that the Wastewater Division would be taking on \$500,000/year in debt over a 25-year period, at 4% interest, for Capital Improvement Projects. This particular category should be funded through Capacity Fees not through user fees, whenever possible. Thus, a more appropriate Capacity Fee rate schedule could reduce the annual revenue burden up to \$500,000 per year, which is not insignificant.

Septage Fees

Another area of improvement is the Septage Fee rate.

Currently, the Town charges \$0.16 per gallon to dump septage (septic system waste). A couple key issues with this rate per gallon is that (1) it does not cover the cost for processing that septage, and (2) it is below market rate for septage dumping.

This means that the surplus cost not covered by the fee is passed on to Town customers, both residential and commercial.

Increasing the Septage Fee rate to cover the actual cost to process septage would further reduce the revenue burden on residential sewer customers.

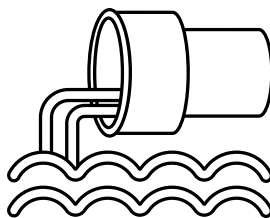
A brief search of average septage rates and charges per gallon showed \$0.33 as being typical. Local research showed that Cottonwood and Globe do not allow septage dumping and that Prescott Wastewater charges \$0.21/gal (or \$206/1000gal).

If the Town were to double its Septage rate from \$0.16 to \$0.32, for example, it would double its overall Septage revenue, while still being consistent with the market rate. Currently septage revenue for the Town is close to \$400,000, meaning it could increase to approximately \$800,000. This would be a huge relief to residential customers reducing the revenue burden anywhere from 40-60%, thus enabling the Town to reduce monthly rates.

Even matching Prescott's prices of \$0.21 would increase annual revenue by \$100,000.

This, of course, needs to be researched more thoroughly, but it is a potential avenue for reducing the revenue burden on residential customers.

It is highly recommended that the Town do a Septage Rate study to find a price per gallon which covers costs appropriately.



Impact

If adjustments in either of these two categories yields greater revenues, the Town would be able to accommodate a decrease in residential customer rates. Predictably, **the rate of reduction would align with the rate of revenue increases** (i.e. 20% increase in revenues = 20% decrease in rates).

With revenue offset, the Town would have the ability to offer lower overall rates for sewer.

As mentioned before, the Town could also introduce low-income discount rates following State and Federal guidelines. This would consist of discounts applied to the customer's monthly bill:

Ex: Household income of \$30,000 or less with two dependents equates to a 25% discount on water and/or sewer rates.

With Option 3, an increase in fees elsewhere results in the opportunity to reduce user fees and provide certain discounts.

One thing to note, however, is that these low-income discounts can be adopted or implemented even before revenue adjustments. This is due to the fact that Wastewater's service connections have increased at a rate 6 times higher than initially predicted in 2023, meaning the Town has generated slightly higher revenue than expected, which could potentially accommodate for the difference.

It is recommended that this be looked into further by staff to understand the financial implications of such an accommodation and policy. This particular amendment would be a positive accommodation for residential customers as it can help provide relief for those who are disadvantaged.

A deep dive into how many customers qualify, how much revenue would be lost annually under such discounts, and how much revenue surplus the Wastewater has actually generated, will all need to be considered before moving forward.

Removed Option: Flat Rate



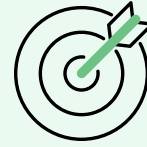
Before wrapping up, one option which was recommended internally and considered prior to developing this report was the **Flat Rate** option. It was not pursued as a viable option because it is less equitable than fixture count, moving the Town further away from an appropriate solution. A Flat Rate would simplify internal processes and make budgeting more predictable, due to the fact that every customer pays the same amount each month, but on the customer end it is not so appealing.

As previously discussed, the average rate per customer would need to be **\$73.86**. Meaning, **the monthly user fee would be \$73.86 for every single customer, regardless of size of house or usage**. In this scenario, using the customer samples from previous sections, 30% of customers would be better off by about \$10 each, while 10% of customers would be worse off by about \$30 each:

	Jan-2025 (Fixture)	Jan-2025 (Flat Rate)
Customer 1: 1300 gal - 9 units	\$36.90	\$73.86
Customer 2: 4100 gal - 9 u.	\$36.90	\$73.86
Customer 3: 4200 gal - 18 u.	\$73.80	\$73.86
Customer 4: 6700 gal - 18 u.	\$73.80	\$73.86
Customer 5: 1400 gal - 24 u.	\$ 85.00	\$73.80
Customer 6: 7700 gal - 24 u.	\$ 85.00	\$73.80

If the Town is interested in this pathway, it can be developed further. Aside from the issue of equity, the other issue to consider would be the effect on Commercial Rates. Would a Flat Rate only apply to residential, or would it also apply to commercial rates as well? Where a laundry facility pays the same monthly rate as a small business with one public bathroom - It can easily become complicated.

Staff Recommendations



At this time, Town Staff recommend proceeding with *Option 3*. This recommendation is twofold, (1) the Town has already entered into a contract with Wildon Consultant Financial LLC to complete a Development Impact Fee Study, which can be utilized to re-evaluate sewer fees and, therefore, monthly rates, and (2) past studies and this report show no real cost benefit or savings when going from a fixture-based to usage-based rate at this time:

Snapshot of FY25 Rate Comparison (revisiting data from previous tables):

	Jan-2025 (Current -Fixture)	Jan-2025 (2023 Usage)	Jan-2025 (Alt Usage)	Jan-2025 (Flat Rate)
Customer 1: 1300 gal - 9 u.	\$36.90	\$87.13	\$55.54	\$73.86
Customer 2: 4100 gal - 9 u.	\$36.90	\$118.46	\$71.92	\$73.86
Customer 3: 4200 gal - 18 u.	\$73.80	\$119.59	\$72.50	\$73.86
Customer 4: 6700 gal - 18 u.	\$73.80	\$147.55	\$89.05	\$73.86
Customer 5: 1400 gal - 24 u.	\$ 85.00	\$88.25	\$56.12	\$73.86
Customer 6: 7700 gal - 24 u.	\$ 85.00	\$158.74	\$96.02	\$73.86

The best probable outcome is in re-evaluating Capacity and other fees (such as septage) for the purposes of offsetting the revenue demand on the residential customer, thus enabling the Town to adopt lower and more equitable user fees. After such revenue adjustments are made, the Town can then revisit the idea of switching to usage-based rates.

Council Considerations



Each avenue presented here has only briefly been explored and requires further review and consideration before adoption or implementation. It is recommended that the Council select their preferred option and proceed with a formal study or a request for further research, in order to better understand the true impact and effect.

The key considerations for the Town Council and Staff are: Who will be affected and how badly? Which outcome(s) have the least detrimental effect overall? And are there any accommodations that can be made to alleviate the group that is inevitably negatively affected by the chosen avenue, such as offering income-based discounts, or similar?

Contact Information



For Further Inquiries Please Contact the Town's Utilities Director:

lisa.vaughan@campverde.az.gov | 395 S Main St, Camp Verde, AZ | +928-554-0825

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Meeting Date: January 28, 2026

Agenda Item Type:

- | | | |
|---|--|--|
| ☐ Consent Agenda | ☒ Informational Presentation | ☐ Discussion Item |
| ☐ Action/Decision Item | ☐ Executive Session Request | ☐ Other: |

Requesting Department: Development Services

Staff Resource: Chief Building Official Roxanne Jasman

Agenda Title: Presentation and discussion regarding changes to the 2024 International Building Code for future adoption consideration.

Attached Documents: PowerPoint Presentation

Estimated Presentation Time: 20 minutes

Estimated Discussion Time: 5 minutes

Reviewed By:

- | | | | | |
|--|---|---|----------------------------------|---------------------------------|
| ☒ Town Manager | ☒ Legal | ☒ Risk Management | ☐ Finance | ☐ Other: |
|--|---|---|----------------------------------|---------------------------------|

Financial Review (if applicable):

- Funding Source / GL Account Number:
- Approved in the FY26 Budget? ☐ Yes ☐ No ☒ N/A ☐ Other:
- Is this an approved CIP Project? ☐ Yes ☐ No ☒ N/A ☐ Other:

Background Information:

The purpose of this presentation is to provide Council with an overview of the most significant changes to the International Codes since 2019. By highlighting the key updates in advance, Council members can better understand the scope and impact of the proposed amendments and be prepared for the formal adoption process next month.

Connection to the [FY25-FY30 Strategic Plan](#)

Updated building codes increase building resilience and occupant safety, incorporating modern standards for fire protection, structural loads, and hazard mitigation, while ensuring infrastructure keeps pace with growth and economic development.

Question(s) before the Council:

- Does Council have any questions for staff?



TOWN OF CAMP VERDE

2024 Code Adoption Highlights



Agenda

- **Proposed Code Adoption**
- **Timeline for Adoption**
- **Energy Code – Why Not Adopt the 2024?**
- **Significant Changes to the International Residential Code (IRC)**
- **Significant Changes to the International Building Code (IBC)**
- **Top 3 Changes to the National Electrical Code (NEC)**
- **Top Changes to the International Plumbing Code (IPC)**
- **Top Changes to the International Mechanical Code (IMC)**
- **Top Changes to the International Fuel Gas Code (IFGC)**
- **Top Changes to the International Existing Building Code (IEBC)**
- **Top Changes to the International Swimming Pool & Spa Code (ISPSC)**



Proposed Codes

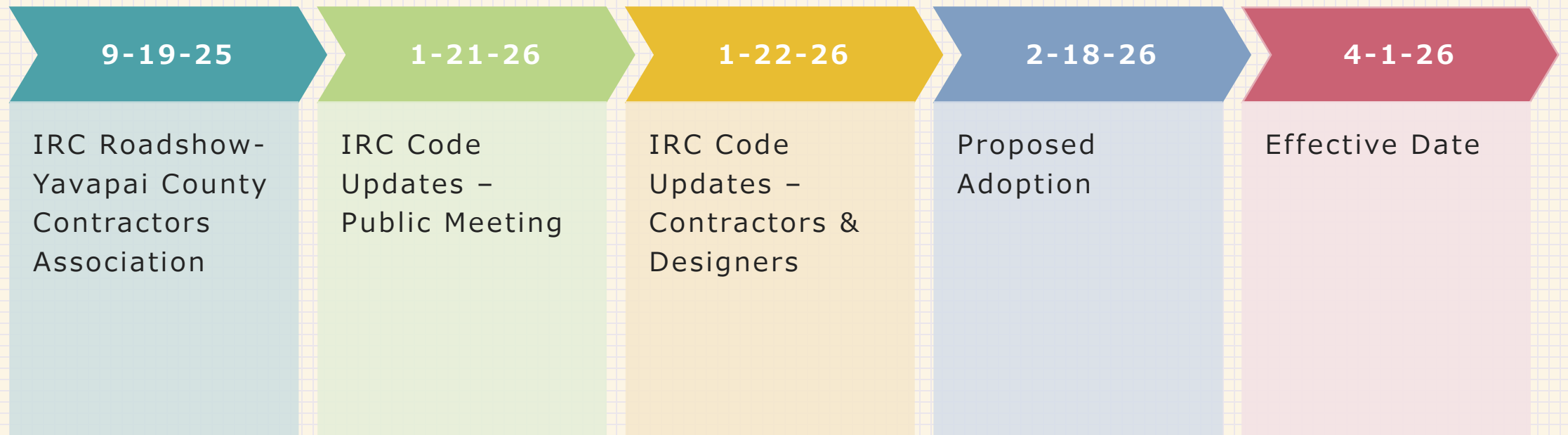
AND TIMELINE

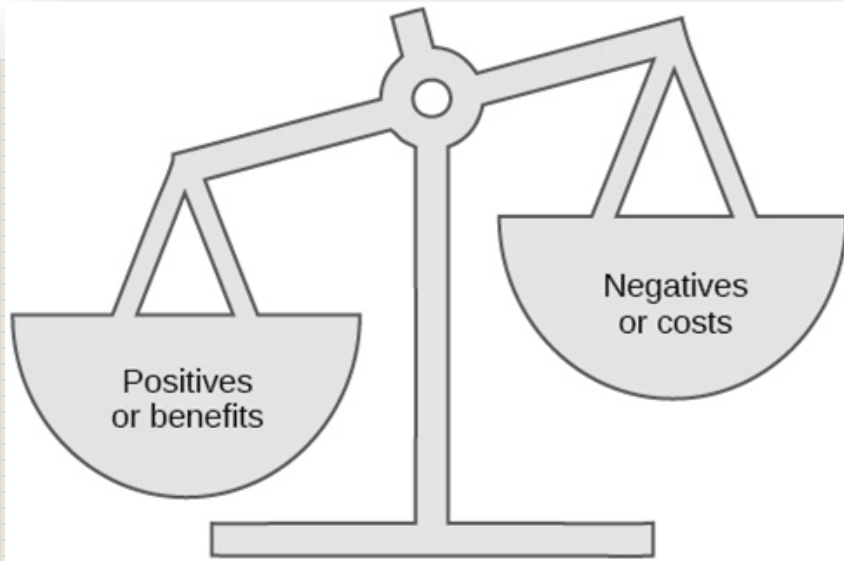


2024 Codes to be Adopted

ICC:	International Code Council
IBC:	International Building Code, 2024 Edition as adopted
IRC:	International Residential Code, 2024 Edition as adopted
IFC:	International Fire Code, 2024 Edition as adopted
IMC:	International Mechanical Code, 2024 Edition as adopted
IPC:	International Plumbing Code, 2024 Edition as adopted
IFGC:	International Fuel Gas Code, 2024 Edition as adopted
IEBC:	International Existing Building Code, 2024 Edition as adopted
ISPSC:	International Swimming Pool and Spa Code, 2024 Edition as adopted
IECC:	International Energy Conservation Code, 2018 Edition as adopted
NEC:	National Electric Code, 2023 Edition as adopted

Timeline





Energy Code

Why not adopt the 2024?



Single-Family Residential Construction 2018→2024

- **Significantly Higher Construction Costs**

Increased insulation levels, tighter envelopes, and more stringent mechanical requirements
Greater likelihood of requiring higher-efficiency HVAC equipment and heat pumps

- **Electrification Mandates or Strong Push**

Reduced flexibility for natural gas or mixed-fuel homes
Potential mismatch with local utility infrastructure and homeowner preferences

- **More Stringent Envelope & Air Sealing Requirements**

Lower air leakage targets increase construction complexity
Higher risk of failed blower door tests and construction delays

- **Increased Compliance Complexity**

New metrics (e.g., Total Energy Use Intensity or equivalent paths)

Greater reliance on energy modeling and third-party verification

Commercial Construction 2018→2024

- **Major Increase in Design and Documentation Complexity**
More detailed energy modeling and performance-based compliance paths
Increased design costs and longer permitting timelines
- **Higher First Costs**
More stringent lighting power densities and controls
Enhanced HVAC efficiency, heat recovery, and commissioning requirements
- **Economic Competitiveness Concerns**
Increased construction costs may discourage development
Potential disadvantage compared to neighboring jurisdictions using earlier IECC versions
- **Expanded Electrification and Decarbonization Provisions**
Limits on design flexibility for certain building types
Potential incompatibility with existing utility capacity
- **Operational and Maintenance Impacts**
Advanced systems may require specialized maintenance staff
Increased long-term operational complexity for building owners

Summary

- The 2018 IECC already delivers meaningful and proven energy efficiency improvements
- Remaining on the 2018 IECC maintains a practical balance between energy savings, cost, and enforceability
- Helps limit additional design & construction costs for both homeowners and commercial developers
- Keeps our community aligned with neighboring jurisdictions
- Preserves regional competitiveness for residential and commercial development



Significant Changes to the Residential Code

2018-2024

Definitions – Live/Work Units

***[RB] LIVE/WORK UNIT**

A dwelling unit or sleeping unit in which a significant portion of the space includes a nonresidential use that is operated by the tenant.

- Regulated by the IBC in section 508.5 but can be built under the IRC if automatic sprinkler system is installed.

****[RB] – IRC Building Code Development Committee reviewed change***

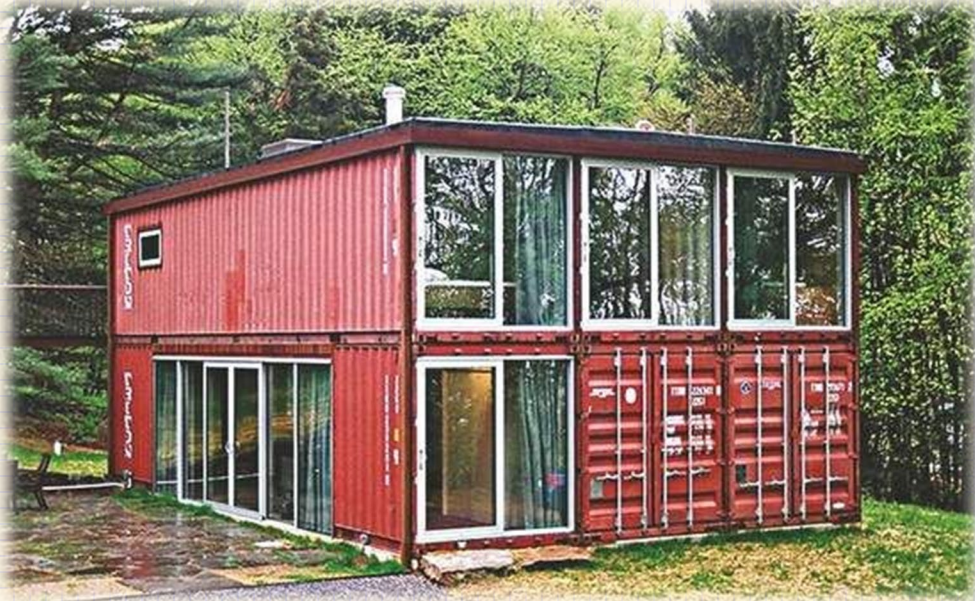


Definitions – Photovoltaic Support Structures

[RB] PHOTOVOLTAIC (PV) SUPPORT STRUCTURE, ELEVATED



An independent photovoltaic (PV) panel support structure designed with usable space underneath with a clear height of not less than 7 feet 6 inches (2286 mm), intended for secondary use such as providing shade or parking of motor vehicles.



R301.14 Intermodal Shipping Containers

Intermodal shipping containers that are repurposed for use as buildings or structures shall be designed in accordance with the structural provisions in Section 3114 of the international building code.

* Engineered design required

R301.2.1 Wind design criteria.

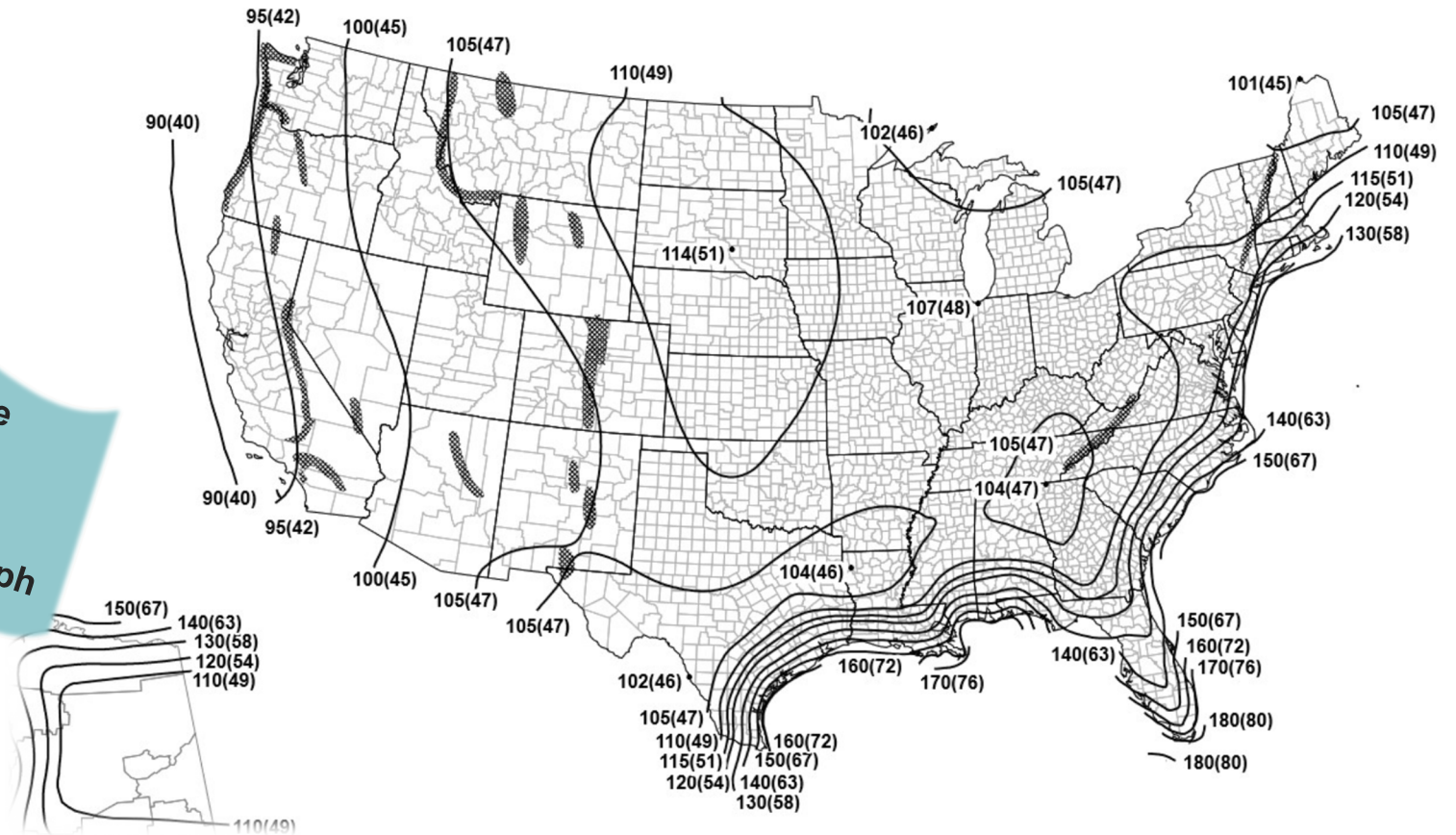
Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code using the ultimate design wind speed in Table R301.2 as determined from Figure R301.2(2).



Town Council Work Session

- 2018 Code – ultimate wind speed 115 mph
- 2024 Code – ultimate wind speed now 105 mph

R301.2.1: Wind Design Criteria *for residential structures only*



Note that commercial projects must comply with the International Building Code.

The Fire District is looking to impose a square footage of 3,600 sq ft or greater or insufficient fire flow in the area.

R309.1 Townhouse Automatic Sprinkler Systems

An automatic sprinkler system shall be installed in accordance with the Fire Code as adopted by the fire district having authority.

R309.2 One- and Two-Family Dwellings Automatic Sprinkler Systems

An automatic sprinkler system shall be installed in accordance with the Fire Code as adopted by the fire district having authority.

Fire Sprinklers

FIRE DISTRICT ADOPTIONS

Sleeping Lofts

[RB] SLEEPING LOFT.

A space designated for sleeping on an intermediate level or levels between the floor and ceiling of a story, open on one or more sides to the room in which the space is located, and in accordance with Section R315.

R315.1 Sleeping Lofts

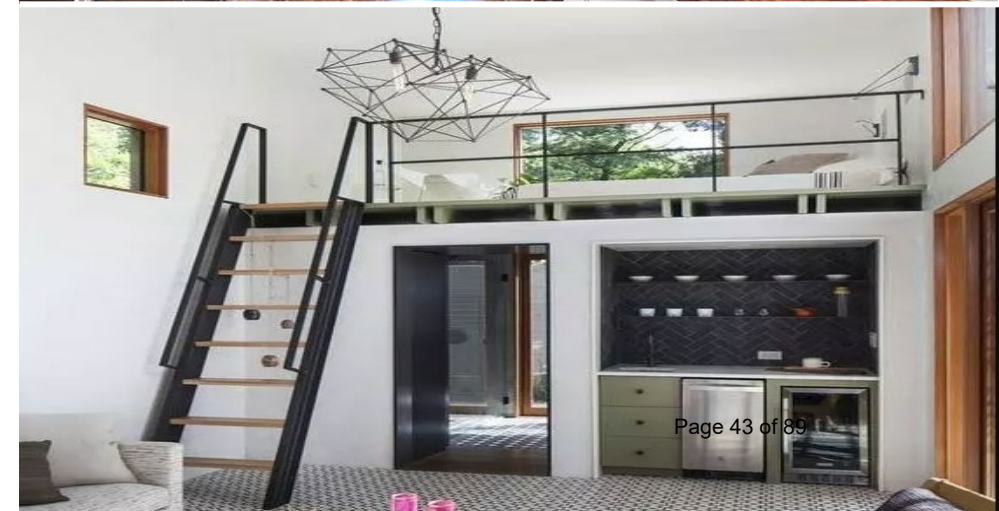
R315.2 Sleeping loft limitations

R315.3 Sleeping loft ceiling height

R315.4 Sleeping loft area

R315.5 Permanent egress for sleeping lofts

- Emergency escape and rescue opening required, R319.1.
- Ships ladders, alternating tread devices, and guards with horizontal rails are not allowed.



R330 Solar Energy Storage Systems

Previously Stationary Storage Battery Systems

R330.1 General has been amended by the deletion of the following Exceptions:

1. *ESS listed and labeled* for use in habitable spaces, in accordance with UL 9540 and where installed in accordance with the listing, the manufacturer's instructions and NFPA 70.
2. *ESS less than 1 kWh (3.6 megajoules).*

Section R330 Energy Storage Systems

R330.4 Locations

ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space in accordance with Section R302.6.
3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit, **except where smaller separation distances are permitted by the UL 9540 listing and manufacturer's installation instructions.**
4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X gypsum wallboard. Openings into the dwelling shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 13/8 inches (35 mm) in thickness, or doors with a 20-minute fire protection rating. **Doors shall be self-latching and equipped with a self-closing or an automatic-closing device. Penetrations through the required gypsum wallboard into the dwelling shall be protected as required by Section R302.11, Item 4.**



ESS shall not be installed in sleeping rooms, or closets or spaces opening directly into sleeping rooms.

Section R330 Energy Storage Systems

R330.8.1 Garages

Where an ESS is installed in the normal driving path of vehicle travel within a garage, impact protection complying with Section R330.8.3 shall be provided. The normal driving path is a space between the garage vehicle opening and the interior face of the back wall to a height of 48 inches (1219 mm) above the finished floor. The width of the normal driving path shall be equal to the width of the garage door opening. Impact protection shall also be provided for an ESS installed at either of the following locations (see Figure R330.8.1):

1. On the interior face of the back wall and located within 36 inches (914 mm) to the left or to the right of the normal driving path.
2. On the interior face of a side wall and located within 24 inches (610 mm) from the back wall and 36 inches (914 mm) of the normal driving path.

Exception: Where the clear height of the vehicle garage opening is 7 feet 6 inches (2286 mm) or less, ESS installed not less than 36 inches (914 mm) above finished floor are not subject to vehicle impact protection requirements.

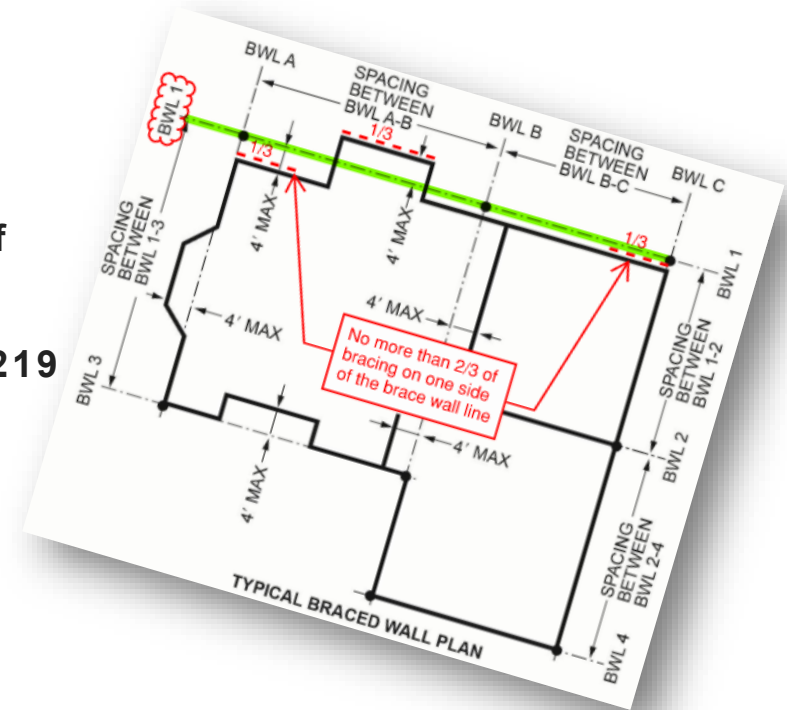
Location of Braced Wall Lines and Permitted Offsets

R602.10.1.2 Location of Braced Wall Lines and Permitted Offsets

Each braced wall line shall be located such that no more than two-thirds of the required braced wall panel length is located to one side of the braced wall line. Braced wall panels shall be permitted to be offset up to 4 feet (1219 mm) from the designated braced wall line. Braced wall panels parallel to a braced wall line shall be offset not more than 4 feet (1219 mm) from the designated braced wall line location as shown in Figure R602.10.1.1.

Exterior walls parallel to a braced wall line shall be offset not more than 4 feet (1219 mm) from the designated braced wall line location as shown in Figure R602.10.1.1.

Interior walls used as bracing shall be offset not more than 4 feet (1219 mm) from a braced wall line through the interior of the building as shown in Figure R602.10.1.1.



Whole-House Surge Protectors

E3606.5 Surge Protection

All services supplying one- and two-family dwelling units shall be provided with a surge-protective device (SPD) installed in accordance with Sections E3606.5.1 through E3606.5.3.



E3606.5.1 Location.

The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.

Exception: The SPD shall not be required to be located in the service equipment if located at each next-level distribution equipment downstream toward the load.

E3606.5.2 Type.

The SPD shall be a Type 1 or Type 2 SPD.

E3606.5.3 Replacement.

Where service equipment is replaced, all of the requirements of this section shall apply. [230.67]

E3606.5.4 Ratings.

SPDs shall have a nominal discharge current rating (I_n) of not less than 10 kA. [230.67]

E3702.3 Ten-ampere Branch Circuits

A 10-ampere branch circuit shall comply with the following:

1. A 10-ampere branch circuit shall be permitted to supply one or more of the following: lighting outlets, dwelling unit exhaust fans on bathroom or laundry room lighting circuits, and a gas fireplace unit supplied by an individual branch circuit.
2. A 10-ampere branch circuit shall not supply receptacle outlets, fixed appliances except as permitted for individual branch circuits, garage door openers and laundry equipment. [210.23(A)(1) and (2)]

Feeder Loads

E3704.2 Feeder Loads

Load calcs including electric vehicle supply equipment required for house or panel change-out submittal

The minimum load in volt-amperes shall be calculated in accordance with the load calculation procedure prescribed in Table E3704.2(1). The associated table demand factors shall be applied to the actual load to determine the minimum load for feeders. (220.40)

Table E3704.2 (1)

Appliances and motors: The nameplate rating load of all fastened-in-place appliances 1/4 horsepower or greater, or 500 watts or greater, that are fastened in place, other than dryers, ranges, air-conditioning and space-heating equipment, and electric vehicle supply equipment (EVSE). 100 percent of load for three or less appliances. 75 percent of load for four or more appliances.

Wall Spaces, Exception 2

E3901.4.1 Wall Spaces

A receptacle outlet shall be installed at each wall countertop and work surface that is 12 inches (305 mm) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches (610 mm), measured horizontally, from a receptacle outlet in that space. The location of the receptacles shall be in accordance with Section E3901.4.3. [210.52(C)(1)]

Exceptions:

1.Receptacle outlets shall not be required on a wall directly behind a range, counter-mounted cooking unit or sink in the installation described in Figure E3901.4.1. [210.52(C)(1) Exception No. 1]

2.Where a required receptacle outlet cannot be installed in the wall areas shown in Figure E3901.4.1, the receptacle outlet shall be permitted to be installed as close as practicable to the countertop area to be served. The total number of receptacle outlets serving the countertop shall not be less than the number needed to satisfy Section E3901.4.1. These outlets shall be located in accordance with Section E3901.4.3. [210.52(C)(1) Exception No. 2]



Section E3902 GFCI Required for 125-250-Volt Receptacles

- Expanded GFCI Protection Requirements: GFCI protection was broadened beyond just 125-volt receptacles to include up to 250-volt receptacles in specified wet and damp locations, increasing safety coverage for more appliances and receptacles near moisture.
- Revised Outdoor Outlet Protection: Outdoor receptacles must now be GFCI protected by default, with a few specific exceptions.
- Deleted Crawl Space Light GFCI
- The 2024 IRC adds a defined list of receptacles that are exempt from GFCI protection, clarifying compliance.
- More Precise GFCI Application Language: The updated text restructures protection rules (e.g., which circuits and outlets need protection) for easier reference and enforcement compared to the 2018 layout.



Section 3902 GFCI Required for 125-250-Volt Receptacles

E3902.12 Specific Appliance Outlets

Ground-fault circuit-interrupter protection shall be provided for the branch circuit or outlets supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or three-phase:

1. Drinking water coolers and bottle fill stations.
2. High-pressure spray washing machines.
3. Sump pumps.
4. Dishwashers.
5. Electric ranges.
6. Wall-mounted ovens.
7. Counter-mounted cooking units.
8. Clothes dryers.
9. Microwave ovens. [210.8(D)]



E3907.8 Cables - Addition of Exception #2

E3907.8: Cables is hereby amended by addition of Exception #2 and revised to read as follows:

E3907.8: Cables.

Where cables are used, each cable shall be secured to the cabinet, panelboard, cutout box or meter socket enclosure. [312.5(C)]

Exceptions:

1. Cables with entirely nonmetallic sheaths shall be permitted to enter the top of a surface-mounted enclosure through one or more sections of rigid raceway not less than 18 inches (457 mm) nor more than 10 feet (3048 mm) in length, provided all the following conditions are met: ...
2. Cables with entirely nonmetallic sheaths shall be permitted to enter the back of a surface-mounted main service entrance enclosure through one or more sections, provided that each section consists of an approved male fitting with a locknut and bushings, and the wires are properly secured within 8 inches of entering the section. The total amount of wires shall not exceed the allowable fill as appropriate for the conduit size.

Island and Peninsular Countertops and Work Surfaces

Proposed Amendments

E3901.4.2 Island and Peninsular Countertops and Work Surfaces

Not less than one receptacle outlet shall be installed to serve an island or peninsular countertop or work surface with a long dimension of twenty-four inches (24") or greater and a short dimension of twelve inches (12") or greater.

E3901.4.3 Receptacle Outlet Location (#4)

Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, within cabinet drawers, or range tops as covered in the exception to Section E3901.4.1, or appliances occupying assigned spaces shall not be considered as these required outlets. Required receptacle outlets shall be located in one or more of the following:

1. On or above, but not more than 20 inches (508 mm) above, the countertop or work surface.
2. In a countertop using receptacle outlet assemblies listed for the use in countertops.
3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops. [210.52(C)(3)]
4. Receptacle outlets located below the countertop of an island or peninsula shall only be installed where the countertop overhang is no more than one and a half inches (1 ½") and is located within twelve (12") inches of the top of the work surface.



Appendix BB Tiny Houses

Definition

TINY HOUSE. A dwelling that is 400 SQUARE FEET (37 M2) or less in floor area excluding lofts, that is site built or classified as an approved factory-built building by the Arizona Department of Housing, Office of Manufactured Housing. Park Models or any units licensed as Recreational Vehicles (RVs) are not classified as tiny houses and are only permitted in Manufactured Home Parks or RV Parks, as specified in the adopted Planning and Zoning Ordinance.

BB104.2 Loft Access and Egress

Amended by deletion of:

- Ladders
- Alternating Tread Devices
- Ship's Ladders





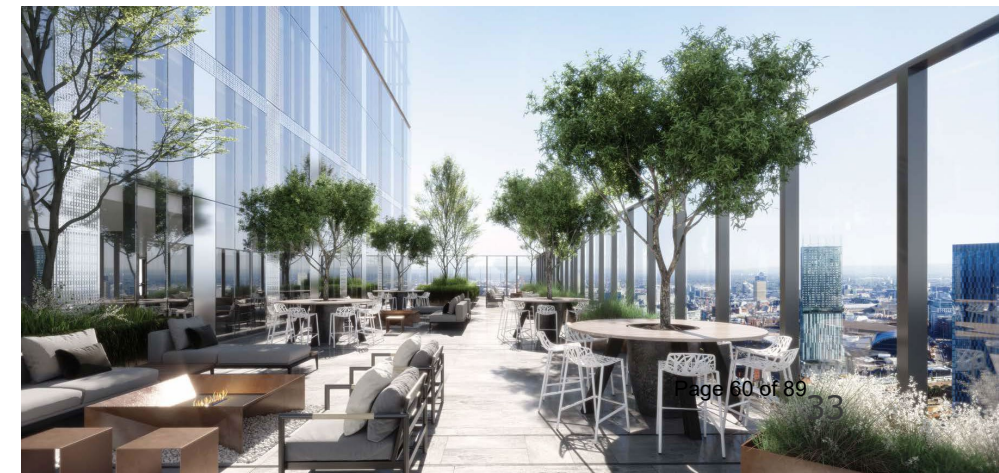
Significant Changes to the Building Code

2018-2024

503.14 Occupiable Roofs

Definition: An exterior space on a roof that is designed for human occupancy, other than maintenance or repair, and is equipped with a means of egress system meeting the requirements of this code.

- Occupiable roofs may be counted as a story in building height calculations depending on access and use.
- Egress Requirements: Must provide safe exit paths consistent with Chapter 10 (stairs, guards, exit access).
- Occupant Load Considerations: Must accommodate anticipated number of occupants with proper spacing, exits, and load-bearing design.
- Safety & Guarding: Requires guardrails, barriers, or fall protection to prevent accidents and meet building code standards.



509 Energy Storage Systems (ESS)

- Expands scope to include provisions for lithium-ion batteries
- Introduces clear separation, ventilation, and fire-resistance requirements
- Aligns fire protection, monitoring, and suppression with code, rather than relying solely on NFPA 855 guidance.
- Provides exposure considerations for adjacent buildings, with varying wall ratings depending on separation distance.

601 & 602 Mass Timber Provisions

New Tall Mass Timber Construction Types Added

- Three new construction types: Type IV-A, IV-B, and IV-C, that permit taller and larger mass timber buildings than traditional heavy timber.
- These classifications expand allowable building heights and areas using mass timber structural systems.
- 100% Exposed Mass Timber Ceilings Allowed in Type IV-B (IBC §602.4.2) based on successful fire performance testing, increasing aesthetic flexibility and reduces the need for gypsum board finishes.
- For multistory mass timber buildings, allowable exposure of timber surfaces is evaluated on each story individually, not across combined levels.
- Type IV-C permits fully exposed timber interiors (with a few exceptions) and supports mass timber buildings up to eight stories without needing a podium.
- It also includes revised fire-resistance requirements for bearing walls, floors, and primary frame elements.
- Changes are supported by full-scale fire testing demonstrating that greater exposed mass timber can meet fire safety objectives, reflecting a science-based update to the permitted construction and exposure allowances.



Heavy Timber = Single large timbers

Mass Timber = Engineered laminated panels/beams

A podium is the lower “base” of a building, usually non-combustible, that supports taller wood or mass timber stories above while meeting fire and structural requirements.

Fire area has been
reduced to 5,000 or less
for **all** occupancies.

903 Automatic Sprinkler Systems

Fire District Adoptions

915 Carbon Monoxide Detection

Update requires CO detection in all occupancies where a CO-producing device is present (with limited exceptions) and encompasses a reorganization of provisions for where and how detectors are installed.

Accessibility

1107.2 Electrical Vehicle Charging Stations

- **Not required by the IBC or ICC A117.1**
- **Must meet limited accessibility criteria if installed**

Exemptions apply for spaces used for exclusive use by law enforcement, buses, trucks, delivery vehicles, and motor pools.
- **5% of provided spaces, but not less than one for each system**
- **Sites with multiple charging station locations do not necessarily require accessible spaces in each location**
- **Spaces do not require exclusive ADA signage**

Wind Design Speed Based on Risk Category

Section 1604.5 Risk Category of Buildings and Other Structures
Section 1609 Wind Loads

Wind load assigned based on Building Risk Category I, II, III, or IV

Risk Category I = 100

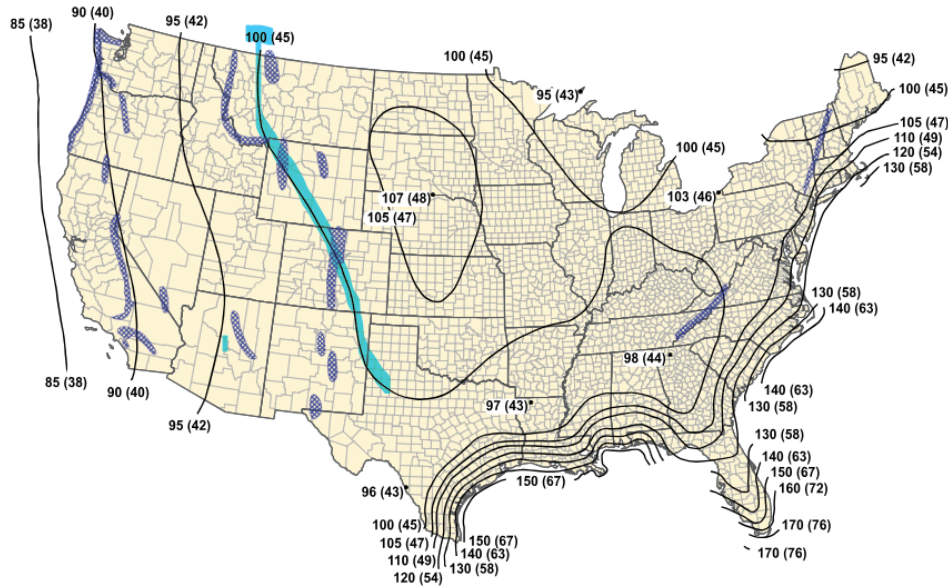
Risk Category II = 105

Risk Category III = 110

Risk Category IV = 115

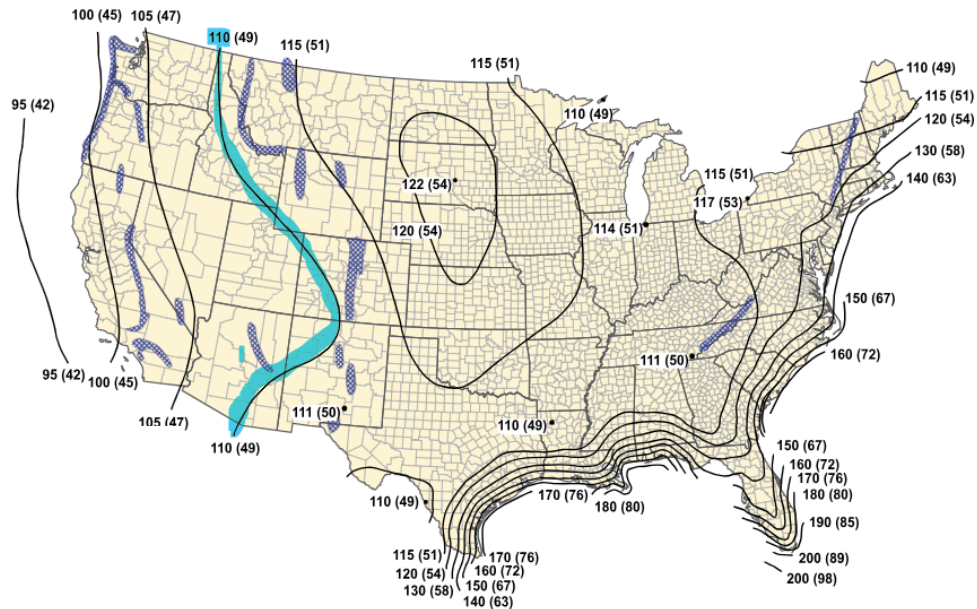
Risk Category I & II

Risk Category I



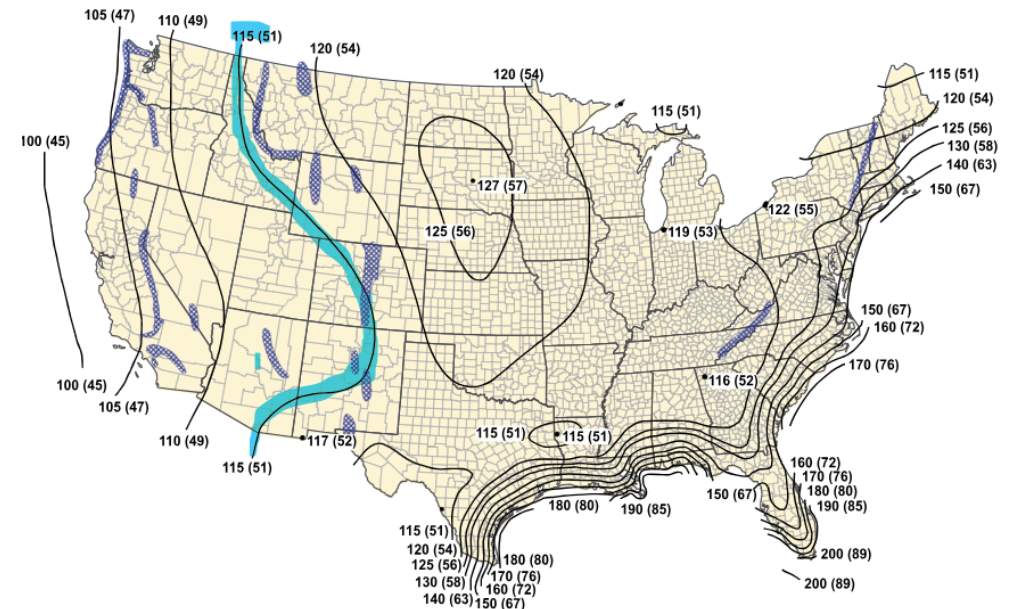
Risk Category III & IV

Risk Category III



Buildings and structures that present **substantial hazard** to human life in the event of failure. Examples: Assembly Buildings with 300+ Occupants, Educational Facilities with 250+ Occupants.

Risk Category IV



Buildings and structures designated as **essential facilities where loss of function represents substantial hazard to occupants or users**. Examples: Hospitals, Fire, Ambulance & Police Stations, Public Utility Facilities.

1704.6 Structural Observations

1704.6 Structural Observations

...the structural observer shall visually observe representative locations of the structural systems, details and load paths for general conformance to the approved construction documents...

1704.6.1 Structural Observations for Structures

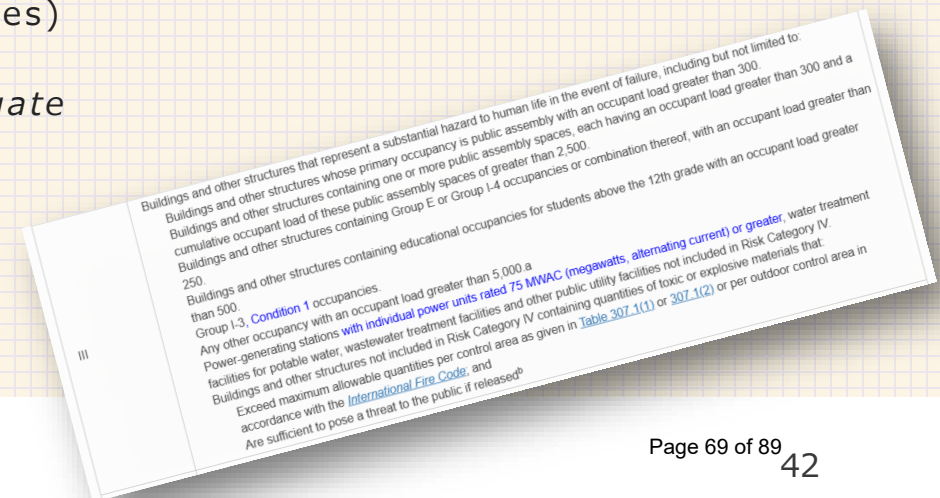
- Now includes Risk category III buildings and structures

Typical examples include:

Structures with large occupant loads (e.g., assembly halls, large churches and schools, indoor and outdoor amusement facilities)

Buildings housing occupants with *limited ability to self-evacuate* (e.g., certain care facilities)

Certain public utility facilities, such as medium-sized power plants or treatment plants (not classified as essential).



1705 Required Special Inspections and Tests

Proposed Amendments

1705.21 Electrical Special Inspections

The types of equipment of installations noted below shall be tested or inspected by a special inspector or licensed design professional.

1. Work which, in the opinion of the building official, involves unusual hazards or conditions.

1705.22 Mechanical Special Inspections

The types of equipment of installations noted below shall be tested or inspected by a special inspector or licensed design professional.

1. Work which, in the opinion of the building official, involves unusual hazards or conditions.

1705.23 Plumbing Special Inspections

The types of equipment of installations noted below shall be tested or inspected by a special inspector or licensed design professional.

1. Work which, in the opinion of the building official, involves unusual hazards or conditions.



Guards on Retaining Walls

1 8 0 7 . 2 . 5

- GUARDS NOW REQUIRED WHERE HAZARDOUS LOCATIONS EXIST
- MINIMUM HEIGHT AND OPENING LIMITATIONS PER SECTION 1 0 1 5 .

P2901.1 Minimum Plumbing Facilities

New exceptions, better matching fixture counts to real-world building use, often reducing the number of required water closets without compromising public health.

- **More accurate occupant counts**
- **Updated fixture ratios**
- **Lowers construction costs**
- **More usable area**
- **Allows flexibility for Mixed-use buildings**

3103.1 Special Event Structures

Definition: Any ground supported structure, platform, stage, stage scaffolding or rigging, canopy, tower or similar structure supporting entertainment-related equipment or signage.

- **Now includes a broader range of temporary structures**
- **Temporary special event structures and similar tents must also meet (IFC) requirements.**
- **If intended to be in place for more than 180 days, or if classified as a public-occupancy temporary structure, they must comply with the full IBC beyond this section.**
- **Extensions Allowed: A public-occupancy temporary structure can remain for up to one year with building official approval and special inspection conditions.**
- **Permits Required: If a temporary structure covers more than 120 sq ft *and* is used by 10 or more people, you must obtain a building permit before erecting it.**

3103.1 Special Event Structures (cont.)

When Permits are Required:

- **Construction Documents Must Be Submitted**

Permit applications must include plans/site plans, means of egress, and occupant load information for the temporary structure.

- **Inspections Are Required**

Structures may be inspected by the building official to verify compliance with the IBC's requirements after installation.

- **Public-Occupancy Temporary Structures Have Additional Inspection Rules**

If a temporary structure is approved to remain beyond 180 days (up to 1 year), it must undergo periodic follow-up inspections by a qualified person, with records available to the building official.

- **Relocation Requires New Permit**

Moving a temporary structure to a new location triggers a new permit application.

3111.3.5 Elevated PV Support Structures

- Regulates elevated photovoltaic (PV) support structures when people or vehicles could be under them.
- Applies to overhead solar panel supports that create usable space (e.g., shade or parking).
- Does not apply if installed over strictly agricultural use.
- PV panels on these structures must be tested, listed, and labeled with a fire classification (per UL standards).
- If panels are installed over a roof assembly, they must meet fire classification requirements in Section 1505.9 of the IBC.



New appendix that defines and regulates “sleeping lofts” in Group R dwelling and sleeping units, separate from other spaces like mezzanines.

Appendix P

SLEEPING LOFTS

- New appendix that defines and regulates “sleeping lofts” in Group R dwelling and sleeping units, separate from other spaces like mezzanines.
- Sleeping lofts must meet specific size and height limits (e.g., max 70 sq ft floor area and ceiling height restrictions) to qualify for the appendix provisions.
- Appendix P sets tailored technical rules for egress, guards, and smoke alarms in sleeping lofts.
- Lofts built under Appendix P are treated as part of the story below (do not count as an additional story).





Significant Changes to the NEC

2017-2023

2023 National Electrical Code

Top 3 Updates

The 2023 NEC strengthens energy storage, EV readiness, and grounding safety.

- **Energy Storage Systems (ESS) Expansion (*Significant update in Article 706*)**
 - Provides clearer definitions and requirements for lithium-ion, lead-acid, and other battery technologies.
 - Specifies fire separation, ventilation, disconnecting means, and monitoring for residential, commercial, and utility-scale systems.
 - Reflects the rapid growth of grid storage, EV charging, and solar + battery systems.
- **Electric Vehicle Supply Equipment (*New and expanded rules in Articles 625 & 210.12*)**
 - Updates to conductor sizing, overcurrent protection, and rapid-charging stations.
- **Grounding & Bonding Updates (*Refinements across Articles 250 & 230*)**
 - Clarifies grounding electrode conductor sizing and bonding of metal structures.
 - Addresses new types of equipment, including solar arrays and energy storage systems.
 - Improves safety by reducing ambiguity from 2017 and ensuring consistent grounding practices across new technologies.



Significant Changes to the IPC

2017-2023

2024 International Plumbing Code

Top Changes

- *New provisions* now require support for buried piping beneath buildings in expansive soil conditions and provide options for vacuum testing of DWV systems.
- **Water Conservation Advances:**
The maximum showerhead flow rate is limited to 2.0 gallons per minute (gpm) with high-efficiency performance compliance.
- **Chemical Waste & Materials Standards:**
Standards for chemical waste piping and fitting materials were added to ensure safety in systems handling corrosive or hazardous wastes.
- **Enhanced Accessibility Integration**
The updated IPC incorporates the latest ICC A117.1 Accessibility Standard, making plumbing fixture and facility requirements more robust and inclusive.



Significant Changes to the IMC

2017-2023

2024 International Mechanical Code

Top Changes

A2L & B2L Refrigerants Added

New refrigerant categories (A2L and B2L) are included with identification and machinery room requirements.

Leak Detection & Alarm Requirements

Mechanical systems with safety relief valves now require leak detection and audible/visual alarms if the discharge isn't readily visible to occupants.

Updated Outdoor Air & Ventilation Criteria

Outside air requirements for dwelling units are increased in line with the latest ASHRAE 62.2 ventilation standards.

New Common Duct Requirements

Added Section 501.6 (Common ducts): exhaust systems serving separate dwelling units must maintain negative pressure in the common shaft/duct.

Significant Changes to the IFGC

2017-2023

2024 International Fuel Gas Code

Top Changes

- **Rewritten General Requirements (IFGC §304.1):** The entire general requirements section was rewritten, replacing previous text with new language to clarify expectations for design and installation of fuel gas systems.
- **New “Protection from Fumes and Gases” Language (IFGC §304.12):** A brand-new section was introduced on protecting systems and occupants from harmful fumes and gases, strengthening safety criteria.
- **Workmanship & Defects Updated (IFGC §403.6):** The workmanship and defects section was substantially rewritten and expanded, emphasizing proper installation and mitigation of common construction defects.



Significant Changes to the IEBC

2017-2023

2024 International Existing Building Code

Summary

The 2024 IEBC updates improve alignment with the IBC on occupiable roofs and storm shelters, clarify risk categories and smoke compartments for alterations, enhance accessibility and emergency use guidance, and add new provisions for sprinkler removal and temporary emergency uses.



Significant Changes to the ISPSC

2017-2023

2024 International Swimming Pool & Spa Code

Top Changes

- **Slip-Resistant Deck Surfaces Required:** Pool decks, ramps, coping, and similar surfaces now must meet slip resistance standards (e.g., dynamic coefficient of friction or pendulum test methods), improving safety around wet areas.
- **Barrier & Screen Enclosure Clarifications:** Pool screen enclosures (partial or whole) can now count toward meeting required barrier protections, providing more flexibility in fencing and safety design.
- **Elevated Pools Recognized:** A new definition for elevated swimming pools (pools over indoor or outdoor habitable/occupiable spaces) ensures specific structural and safety provisions apply.
- **Secondary Disinfection Systems for High-Risk Aquatic Venues:** Secondary disinfection (beyond basic sanitation) is now required for increased risk aquatic venues (like spray pads, therapy pools, children's pools) to better manage contamination risk.

Questions

