Affordability Impact Statement

2024 Uniform Mechanical Code, Uniform Plumbing Code, & Local Amendments

Date: 6/25/24

Proposed Regulation

The proposed adoption of the 2024 Uniform Mechanical Code (UMC), Uniform Plumbing Code (UPC), and local amendments associated with each would replace the current 2021 UMC, UPC, and corresponding local amendments. The UMC and UPC are model codes published by International Association of Plumbing and Mechanical Officials (IAPMO), a non-profit entity with a robust democratic process for weighing the costs and benefits of code changes.

The City of Austin Development Services Department has the stated goal of minimizing the number of 2024 local amendments to the UMC and UPC and deferring to the model codes whenever possible. When amendments are made it is generally because they are mandated by council, responding to business needs, clarifying language, and improving the City's Insurance Services Office (ISO) rating.

Land Use/Zoning Impacts on Housing Costs

The proposed changes would likely have a **neutral** impact on housing costs via land use and zoning. 2024 UMC, UPC, and local amendments will update Austin's land development code to reflect IAPMO's most current standards for mechanical and plumbing systems in buildings. These updated codes will affect building construction in marginal ways, but not through land use or zoning.

Impact on Development Cost

The proposed changes would likely have a **neutral** impact on development costs. The 2024 UMC and UPC are model codes that makes incremental changes to improve mechanical and plumbing standards in buildings. The most significant changes from the 2021 to the 2024 codes according to IAPMO include:

- UMC
  - New minimum air filtration requirements for occupied spaces of mechanically ventilated buildings
  - Revised outdoor air intake requirements for transient occupancies
  - New air balancing requirements for ventilation systems
  - New exceptions for materials exposed with ducts or plenums
  - New provisions for high-probability systems using Group A2L refrigerants for human comfort applications
  - New refrigerant safety group classifications based on flammability and toxicity
  - New requirements for refrigeration machinery rooms where A2L and B2L refrigerants are used
  - New materials standards for refrigerant piping, tubing, and fittings
  - New design requirements for geothermal district ambient temperature loop (ATL) systems
  - New Appendix H providing minimum qualifications for installers, inspectors, or employers for systems covered by the UMC
  - New Appendix I addressing mechanical system requirements for indoor horticultural facilities
  - New Appendix J addressing CO2 monitoring and clean air delivery for adequate ventilation in occupied spaces
- UPC
  - New provisions for tileable shower receptors and kits
  - Provision for temperature-actuated, flow reduction devices for individual fittings
  - New provisions for all-gender facilities, including fixture count, privacy compartments, and partitions
  - New requirements for water supply and distribution manifolds
  - Updated provisions for hot water recirculating systems
  - New provisions for private well water tanks
  - Updated provisions for appliance condensate drains when serving more than one appliance and connecting to a common indirect waste pipe
  - Updated minimum water quality provisions for onsite treated non-potable water systems, non-potable water devices and systems, for harvested rainwater systems
  - Update water supply fixture unit (WSFU) and drainage fixture unit (DFU) values for bathroom groups in Appendix C
  - New Appendix O providing minimum non-sewered sanitation systems
  - New Appendix P providing minimum qualifications for inspectors, examiners, service technicians, installers, and administrators relating to systems addressed in the UPC
  - New Appendix Q addressing plumbing requirements for indoor horticultural facilities
  - New Appendix R providing minimum plumbing system requirements for tiny houses
  - New Appendix S with provisions pertaining to onsite stormwater treatment systems

The most significant proposed local amendments include:

- UMC

  - Significant deletions of unnecessary provisions and language. Roughly 7 of the 13 pages of local amendments are now deleted.
  - 318 – Indoor spaces intended for human occupancy require a mechanical or passive cooling system that can maintain a temperature of 80 degrees Fahrenheit or less. There are exceptions if the primary purpose of the space is not human occupancy or if the occupancy type is Group F, H, S, or U as defined in the code. **According to DSD, this provision will likely be removed from the UMC and added to IRC and IBC instead.**
  - 405.4.1 – Residential Kitchen Exhaust Rate – Changed language slightly to prevent oversizing of equipment that would be impractical for construction.
  - 523 and 524 – Significant improvements to address indoor air quality oversights and catch up to best practices. Protections are introduced by referring to provisions in the International Mechanical Code (IMC).
- UPC
  - Significant deletions of unnecessary provisions and language. Roughly 10 of the 27 pages of local amendments are now deleted.
  - 613 – More building types able to utilize reclaimed grey water now.
  - 1503.10 – New provisions to allow laundry to landscape greywater reclamation.

The sum of the 2024 model codes combined with the local amendments amounts to relatively marginal impacts on construction costs in most cases. The cost increases that do occur may be cancelled out by the benefits to adopting the most recent codes and standards, such as consistency with other jurisdictions and improvements to building safety and resilience. Adopting the most recent codes contributes to the City of Austin maintaining a Class 1 ISO rating, which is the highest achievable. Certain local amendments to the plumbing code help the City of Austin to conserve water resources in the future as well.

The State of California has a general financial impact assessment that finds the 2024 UMC to have a neutral impact on construction costs as well.

Impact on Affordable Housing

The proposed changes would have a **neutral** impact on affordable housing. The above points about development costs also generally apply to affordable housing. Increasing marginal costs of construction may be balanced by the benefits of consistency and marginal improvements to safety and resilience.

City Policies Implemented

None.

Other Housing Policy Considerations

There is an ongoing question of whether Austin should be adopting the International Code Council (ICC) plumbing and mechanical codes (the IMC and IPC, respectively) instead of those from IAPMO. Proponents of the International Codes argue that the IMC and IPC are less prescriptive and more compatible with the rest of the ICC codes that the City of Austin already adopts. Indeed, the IMC and IPC are significantly more concise texts than the UMC and UPC; the former are both under 200 pages and the latter are each roughly 500 pages. International Code proponents argue that they reduce construction costs because they offer greater flexibility. Proponents of the IAPMO uniform codes argue that they maintain a better standard that is the result of an American National Standard Institute (ANSI) certified process. They also argue that the more prescriptive standards result in easier code interpretation and guidance. The City of Austin appears to strike somewhat of a balance between the IMC/IPC and UMC/UPC to gain the benefits of both. The City adopts the UMC and UPC as the primary mechanical and plumbing codes while giving builders the option to abide by the IMC and IPC standards if they so choose (though the Uniform Codes take precedence in cases of conflicting language). Refer to the public comment and answers for reference.

Building codes are important for ensuring baseline safety for structures. It is also helpful for the development process when codes are largely consistent between jurisdictions because there is less burden on builders to understand unique regulations. Ensuring consistent baseline safety standards for buildings has strong benefits, but having such standards inevitably creates development costs. These costs put extra burden on the community and the City to ensure that everyone can afford to enjoy the benefits of safe construction.

Manager's Signature _____  _