



Frequently Asked Questions



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Fire Building Code

- **Which codes are currently adopted by the City of Austin Fire Department?**
 - 2015 International Fire Code with City of Austin Amendments
 - 2015 International Building Code with City of Austin Amendments
 - 2016 NFPA Edition 13, 13R, 130, 14, 72
 - Visit the Fire Marshal's Office website for links to the Fire Criteria Manual and City of Austin Amendments
- **What is the Fire Criteria Manual?**
 - The Austin Fire Department has developed this Fire Protection Manual to assist in the administration, implementation and use of the Fire Code. This manual provides clarification and specific guidance for the prevention and control of fires and fire hazards as are necessary to carry out the intent of the Fire Code

Engineering Services

- **What plans do the Austin Fire Department review?**
 - The Fire Prevention Division reviews for compliance with the International Fire Code/International Building Code, local amendments, the City of Austin Fire Protection Criterial Manual, and NFPA Standards. The plans include site development, building construction permit, smoke control systems, fire alarm systems, alternative agent fire suppression systems, automatic fire sprinkler systems, standpipe systems, fire pump/water supply, and hazardous material storage and use. The Engineering Section is also involved in the testing and inspection process for compliance with the applicable codes and standards.
- **What are the Austin Fire Department Engineering plan intake office visiting and phone hours?**
 - The Plan Intake office hours are Monday thru Friday 8 a.m. to 4 p.m.
 - The contact number is 512-974-0160
- **How do I schedule a preliminary meeting?**
 - Preliminary meeting are handled by Krisha Allen who can be contacted at 512-974-0261 and will require completion of a preliminary checklist

- **Does my project need to be reviewed by the City of Austin Fire Department?**
 - The Austin Fire Department reviews plans located within The City of Austin full purpose and limited-purpose jurisdictions in addition to City of Austin and AISD projects. You can search which jurisdiction you are in using the following website
 - <http://www.austintexas.gov/gis/JurisdictionsWebMap/>

- **Can I have my plans reviewed sooner than the standard time frame?**
 - Yes, plans can be expedited. To expedite plans go to
 - <http://www.austintexas.gov/department/afd-plans-review>
 - and submit an After-Hours Review Request Form. The completed request will be placed in the expedited plan review queue, but the turnaround time will be based on the engineers' availability and the specific project. Expedited reviews may only be conducted outside of regular business hours. The expedited plan review is called After-Hours Review and is allowed for building construction permit review, site development plan review and the review of all fire protection system plans.

- **What is the DDE?**
 - DDE stands for Designated Duty Engineer. The DDE assists with answering of daily customer questions. The DDE is also responsible for reviewing site development plan corrections and requests for site plan exemptions at the Development Assistance Center located on the first floor of the One Texas Center.

Site Plan

- **What is required with the use of an alternative fire lane pavement?**
 - First, approval is required for the use of the proposed alternative fire lane material by an AFD engineer. After approval has been given, a signed and sealed geotechnical report must be provided from a Texas licensed professional engineer describing the subgrade requirements in order to sustain the loading requirements of a fire lane with the use of the proposed alternative pavement.

- **When is a Joint-Use Access agreement required?**
 - A joint-use access agreement is required any time a fire protection feature or access is shared or encroaches into another property.

- **What is an Alternative Method of Compliance?**
 - An Alternate Method of Compliance (AMoC) is a request to have a fire code requirement be met through alternative means. An AMoC form will need to be completed and submitted for consideration of a design modification as an alternate method of code compliance. The completed form must explain how the design proposal is equivalent or better to the base code requirement or what the hardship is. An AMoC must be approved and signed by an AFD engineer in order to be accepted. In many cases concurrent approval and signature by the City of Austin Development Services Department is required as well. Forms may be obtained by contacting an AFD engineer.

- **Can fire hydrants across the street be used as a primary or secondary hydrant?**
 - The use of a fire hydrant is dependent on the site and conditions. Fire hydrant use is measured using hose lay distance through an approved route from the fire hydrant and along the fire lanes of the site to all exterior walls of the proposed structure. Fire hydrants located across small local roads are typically allowed. Fire hydrants located across major arterial streets and divided roads are not allowed. The objective is to remove as much time, confusion, and interruption of normal activities in the event of an emergency.

- **What are some possible ways to reduce the fire flow demand?**
 - Increase the fire-resistance rating of the construction materials
 - Reduce the fire area of the building
 - Install an automatic fire sprinkler system

- **When do I need a tap permit?**
 - A tap permit is required any time a connection is being made to a city water main. Approval from AFD engineering is required when the purpose of the connection is for supplying an automatic fire sprinkler system. AFD will review the tap permit drawing to confirm compliance with underground piping requirements and the ability to supply the fire sprinkler system's hydraulic demand. The expected fire sprinkler hydraulic demand must be provided in a document signed by the RME of the state licensed fire sprinkler company along with proper explanation and evidence to support the hydraulic demand.

- **What are the deductions to the Fire Flow Demand with the installation of a sprinkler system?**

System Type	Occupancy	Construction Type	*Max Deduction Allowed
Full NFPA 13	Any except H-2, H-3 & H-5 and warehouses	Any	75%
Full NFPA 13	H-2, H-3 & H-5 and warehouses	Any	50% **AMoC required
NFPA 13R	R occupancies only typically	Type I or II (A or B)	75%
NFPA 13R	R occupancies only typically	Other than Type I or II	50%

- *The maximum may not be given in some cases due to special circumstances or hazards.
- **AMoC = Alternate Method of Compliance

- **Can a fire lane width be minimized in width?**
 - Allowable fire lane width reductions can be found in the Fire Code
 - All other reductions not found in the Fire Code must be approved through an Alternate Method of Compliance (AMoC)
- **Is there an illustrative example of the fire lane access requirements?**
 - IFC 2015 Section 503
- **Is there an illustrative example of the hose length requirements?**
 - IFC 2015 Section 503
- **When are buildings required to be sprinklered and why?**
 - The fire sprinkler requirements for a building are explained in the building and fire code. The requirement is dependent upon several factors such as occupancy classification, building size, construction type and other factors.
 - Refer to 2015 International Building Code as adopted and amended by City of Austin Chapter 9 – Section 903
- **What flow rate is required for fire hydrants?**
 - All fire hydrants must be able to flow 1,250 gpm. The maximum allowable flow velocity through underground fire mains serving fire hydrants is 10 fps. Private fire hydrants will require hydraulic calculations to show that the maximum flow velocity is not exceeded through the water supply mains while delivering the required fire flow rate. Refer to the City of Austin Fire Protection Criteria Manual for explanation.

- **What are some common reasons for site plan rejections?**
 - Lack of fire flow data and/or supporting hydraulic calculations
 - Missing or incomplete fire access road (fire lane) designation
 - Fire hydrant spacing requirements
 - Improper turning radii in the fire access road (fire lanes) to support maneuvering fire apparatus
 - Lack of (or inadequate) turnarounds at the end of fire access roads (fire lanes) that are greater than or equal to 150' long
 - Engineer seal not signed or no seal provided
 - Texas Registered Engineering Firm number not provided on each sealed plan sheet

Fire Protection Systems

- **What are fire protection and life safety systems?**
 - The primary duties of this Section are to conduct Fire Life Safety Plan Check and Fire Life Safety Inspections interpreting and enforcing applicable standards of codes concerning new construction and remodeling.
 - One of the main functions of plan check is to review plans submitted for permits and prepare correction notices and provide information service to the public and City officials regarding safety requirements. Additionally, case managers consult with architects, engineers, and builders regarding all facets of construction and fire safety and meet on a regular basis with the Department of Building and Safety to investigate and approve alternate methods of construction and building materials that are proposed for use in lieu of code requirements.
- **What steps do I take to have my fire protection system plans processed?**
 - The first step in submitting fire protection system plans (fire alarm, sprinkler, egress, etc.) is to go online to
 - <http://www.austintexas.gov/department/afd-plans-review>
 - Select the plan review type and fill out a Fee Calculation Form and Checklist.
- **How long does it take for a set of plans to be reviewed?**
 - For a new installation project the standard review time is 15 business days. For a remodel project, the standard review time is 5 business days.
- **How will I know when my plan review is complete and ready for pick-up?**
 - Once the review is complete, plan reviewers will email the point of contact provided on submittal checklist/calculation fee form.

- **What are some common reasons for building plan rejections?**
 - Lack of approved (red stamped) site plan to demonstrate that the site plan process is complete
 - Lack of information concerning fire protection systems design
 - Missing or improper fire protection systems (lack of window or opening protection in rated assemblies, lack of sprinkler design specifications, etc.)
 - Missing features of protection for buildings intended to accommodate high piled or high rack storage (e.g. buildings that could accommodate storage over 12 feet high and the proposed occupancy classification includes storage)
 - The planned storage or use of hazardous materials (combustible liquids, flammable liquids or gases, toxics, corrosives, etc.) without adequately addressing the provisions of Fire Code Articles 79 and 80
 - Engineer seal not signed or no seal provided
 - Texas Registered Engineering Firm number not provided on each sealed plan sheet

- **What are some common reasons for system plan rejections?**
 - Plans do not include the basis for the design (no basis for hazard rating of the sprinkler system, special circumstances affecting smoke detector placement or A/V placement, etc.)
 - Rooms and/or building uses are not labeled or otherwise identified
 - A general lack of information – scope of this contract, purpose of the fire protection system (code requirement, alternate method, insurance, owner’s desire or policies, etc.)
 - Missing or incorrect calculations (sprinkler hydraulics, fire alarm power supply, voltage drop, etc.)
 - Improper spacing of devices (sprinklers, smoke detectors, alarm indicating devices, etc.)
 - Improper candela ratings
 - No sequence of operations provided on the plans
 - Legend does not show all devices and/or is not complete
 - UL monitoring not provided
 - Does not have a common architect scale (improper scale or special scale not used by our office)
 - Indicated scale and actual plan scale do not match
 - Plans for multiple buildings or multiple areas within a building do not provide a site plan /key map for fire alarms and standpipes
 - Project numbers do not match or correspond with the correct area on the site plan

- **Can we begin Fire Alarm or Sprinkler installation prior to AFD review and approval of the design and installation plans (“shop drawings”)?**
 - For beginning construction before approval, you will have to submit a letter on company letterhead requesting permission to begin construction prior to plan approval with the understanding that all changes will have to be made per plan approval at the company’s expense. An AFD engineer will stamp the letter indicating we have looked at the request and a copy of this will be required on site at all times.

- **I don't have a Building Permit number for my plans, can I still submit my plans?**
 - While most work will require a Building Permit number, there are some cases in which the scope of work will not.
 - First, confirm that a Building Permit number is not required. You can do this by visiting the Development Services Department in person or website at <http://www.austintexas.gov/department/building-permits>
 - If a building permit is not required by the City of Austin, confirm that a trade permit is not required (example: electrical permit to install a fire alarm control panel). If a trade permit is not required, confirm that system plans are required by the Austin Fire Department at <http://www.austintexas.gov/department/afd-plans-review>
 - If a building permit is not required and system plans are, please provide the following at the time of plan submittal
 - On company letter head provide the scope of work and an explanation why a building permit is not required
 - All other required items based on the applicable submittal checklist

- **At what point is are plans considered a new submittal?**
 - It is a new submittal if it has already been inspected and approved, they should submit a copy of the old plans

Fire Protection Systems Program

- **Who can I contact to find more information about the FPS program?**
 - You may email afdcompliance@austintexas.gov or call 512-974-0160 and select option 4

Residential

- **Who can I contact with questions concerning the residential fire code?**
 - Residential Inspections Division can answer residential fire code questions
 - 512-978-4000.

- **When does a residential property require a fire review?**
 - Residential properties require a review for fire flow when the property's fire area is 3,600 square feet or more. This includes new construction, remodels, and/or additions to existing homes.

- **What is fire area and how is it determined?**
 - The fire area is basically everything under the horizontal projection of the roof attached to the building. It is not the same as the typical heated and cooled area of the residence. It is calculated by adding up the square footage of all floor levels, garages, covered patios, covered balconies, covered outdoor living areas, walkways, breezeways and more. If it is attached to the structure and covered, it is counted.
 - (Refer to the 2012 International Fire Code Section 202 and B104.1)

- **What is fire flow and how is it determined?**
 - Fire flow is the flow rate of a water supply, measured at 20 psi residual pressure, that is available for fire-fighting. A fire hydrant flow test is performed using the two fire hydrants nearest the property and these results are used to calculate the fire flow available.
 - (Refer to the 2015 International Fire Code B102.1)

- **What is a fire hydrant flow test and where do I go to get one?**
 - A fire hydrant flow test is used to test the pressure, velocity, and flow rate within the water line. A fire hydrant flow test request is needed to determine the available water pressure and flow rate within public water mains for establishing the available fire flow to a development site and also for establishing the water supply characteristics for the hydraulic design of automatic fire sprinkler systems. The required fire flow demand for a structure is set forth by the International Fire Code. Once the building construction type and the gross area of the proposed structure are known, the required fire flow demand can be determined.
 - AFD limits the use of fire hydrant flow test reports to not more than 3 years of age from the date of the plan submittal.
 - The fire hydrant flow test request form can be found at the following website
 - <http://austintexas.gov/department/fire/services>

- **What are my options if there isn't sufficient fire flow for my project?**
 - There are several options that may be available to comply with the fire flow requirements if the fire hydrant flow test does not indicate sufficient fire flow for the size of your property.
 - Some options include the installation of automatic sprinklers, in some cases fire area separation with fire-rated construction, or the reduction of fire area to less than 3,600 SF. Contact the AFD reviewer for your project to discuss options.

- **Aren't fire sprinklers systems expensive?**
 - 85% of all U.S. fire deaths occur in the home. While it is true that fire sprinkler systems will increase the cost of the home, the potential benefits far outweigh the cost of the systems. Cost of the systems can vary depending on the type of system, size of the home, contractor selected and type of materials used. The national average for installing automatic fire sprinklers in new homes is \$1.35 per sprinklered square foot. Putting that figure in perspective, people pay similar amounts for carpet upgrades,

whirlpool baths, or granite countertops. Plus, fire sprinklers are similar to investing in a full-time firefighter that stands at the ready 24/7 to protect you, your loved ones, and property.

- <http://www.nfpa.org/public-education/by-topic/fire-and-life-safety-equipment/home-fire-sprinklers>

- **Aren't residential fire sprinkler systems ugly?**

- Many modern residential fire sprinklers have options to provide more aesthetically pleasing and customizable options like modern home appliances. Options like recessed sprinklers in which sprinkler heads are located in the walls or ceilings are provided with small flat plate covers to conceal them. These plates come in a variety of colors to closely match the paint colors in the home. Many people will not even know there is a fire sprinkler system in the home.

- **What if the fire sprinkler system leaks and causes water damage to my new 96-inch TV?**

- Modern fire sprinkler systems are installed using the same materials and techniques as a typical residential domestic water supply. When installed properly by a licensed fire sprinkler contractor or plumber, there is no data to suggest that the fire sprinkler system will cause any more damage than the domestic water supply in the home. In fact, some fire sprinkler systems are installed using the same domestic water lines that are already required to be in the home.

- **Won't fire sprinklers flood my whole house when activated?**

- This is likely the biggest myth of all about fire sprinkler systems. Unlike what we see in the movies, when a fire sprinkler system activates, not all of the sprinkler heads spray water. In fact, most fires are either extinguished or controlled by the activation of only one sprinkler head. Sprinkler heads are designed to activate when sufficient heat reaches the head(s). Only the sprinklers head(s) in the area of the heat source will activate. Smoke detectors and/or heat detectors will not set off fire sprinklers so burning toast or something in the oven will not activate fire sprinklers. Shut off valves on the fire sprinkler riser can be turned off to stop the flow of water from the sprinkler head(s) once the fire has been extinguished.

- **What type of fire sprinkler systems are acceptable for residential properties?**

- Residential fire sprinkler system can be designed and installed according to the NFPA 13D or International Residential Code (IRC) P2904 requirements. Residential fire sprinkler systems can be stand-alone systems that require their own separate water piping or combination systems that use the same domestic water line that are already installed in the home. Both systems must be designed and installed by state licensed professionals.
- **Doesn't the water discharge from a fire sprinkler system cause more damage than the fire?**
 - Fire sprinkler heads average 12-14 Gallons per Minute (GPM) of discharge per sprinkler head. Since a very large percentage of all fires in homes with a fire sprinkler system are controlled or extinguished by the activation of one sprinkler head and this activation occurs very soon after the ignition of a fire, the damage from the water and fire are significantly reduced. In comparison, the average response time for fire departments is 7 to 10 minutes. This allows a significant amount of time for a fire to grow generating not only heat but also smoke and toxic fumes. Average hose flow from a fire hose line is approximately 200 to 250 GPM. The increased response time and water required to extinguish a fire in a home without fire sprinklers will cause a very significant increase in property damage costs.

Hazardous Materials

- **How do I know if I need an Aboveground Hazardous Materials Permit?**
 - If you will be storing any chemicals or substances above ground, be sure to check the minimum quantities for reporting. Information can be found in the permit application at the following link:
 - http://www.austintexas.gov/sites/default/files/files/Fire/Prevention/AFD_HazMatPermitApp2012.doc
- **What size fuel tank can I have at my site?**
 - The amount of fuel allowed on site depends on the zoning for the site. Contact AFD at 512-974-0160 and select the engineering option to start the risk assessment process

- **Do I need to get AFD approval for my residential propane tank?**
 - Yes, approval will depend on the lot size, tank size, and location of the tank on the property. Contact AFD at 512-974-0182 to obtain the LP Gas Request Form and start the risk assessment process

- **Can I install a propane tank for my commercial business?**
 - The approval of propane at commercial properties depends on the zoning, tank size, and location of the tank on the property. Contact AFD at 512-974-0182 to obtain the LP Gas Request Form and start the risk assessment process

- **Does the quantity of chemical I have require any type of special construction?**
 - Quantities that exceed the maximum quantity allowed by the 2015 IFC may require additional construction requirements. Contact AFD at 512-974-0160 and select the engineering option to speak with an engineer to discuss situation

- **Where can I find the NFPA 704 rating for the chemicals I have on my site when filling out the Aboveground Hazardous Materials Permit?**
 - NFPA 704 ratings are usually located on the MSDS or SDS for the product or chemical

- **Where do I find the Aboveground Hazardous Materials permit application?**
 - The application may be found online at
 - <http://www.austintexas.gov/departments/hazmat-permit>

- **How long is a Hazmat permit valid?**
 - The Hazmat permit is valid for 3 years

- **Who can I contact to find more information about the Hazardous Materials permitting process?**
 - You may call 512-974-0160 and select option 3

- **What if I have an underground fuel storage tank?**
 - All questions or issues related to underground fuel storage tanks may be answered by the Planning and Zoning Department and can be reached at 512-978-4000.

Inspection Hours and Scheduling

- **What are the Austin Fire Department Fire Inspection office and phone hours?**
 - **Inspection office hours are open Monday, Wednesday thru Friday 8:00 a.m. – 3:00 p.m. and Tuesdays 12:00 p.m. to 3:00 p.m. The Inspection contact number is 512-974-0153**

- **How do I schedule a fire inspection?**
 - **The Inspections office is responsible for coordinating and conducting fire and life safety inspections services for the City of Austin.**
 - **To schedule an inspection please call 512-974-0153 (Option 3) or visit the Inspection office during visiting hours.**

AFD Special Events

- **Where can I go to find more information about Special Events?**
 - You can go online to
 - <http://www.austintexas.gov/citystage>
- **Who can I contact to find more information about Special Events permitting?**
 - All questions may be submitted via email to
 - AFDSpecialEvents@austintexas.gov
- **Where can I get an occupancy load card?**
 - AFD only issues occupancy load cards to public establishments that operate at an occupancy rate of 50 or more people, and whose gross sales constitute 51% alcohol (i.e. Bars and Night Clubs). Please contact AFD Special Events if this describes your establishment, if not contact Commercial Building Review at 512-978-4000.

Other