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**RULE NO.: R161-26.21**

**NOTICE OF PROPOSED RULE** **POSTING DATE:** August 24, 2026

The Chief of Austin Fire proposes to adopt the following rule on October 1, 2026.

**EFFECTIVE DATE OF PROPOSED RULE**

A rule proposed in this notice may not become effective before the effective date established by a separate notice of rule adoption. A notice of rule adoption may not be posted before September 25, 2026, or after November 2, 2026 (the 70th day after the date of this notice).

If a proposed rule is not adopted on or before November 2, 2026, it is automatically withdrawn and cannot be adopted without first posting a new notice of a proposed rule.

**REQUEST FOR COMMENTS ON PROPOSED RULE**

The City requests comments from the public with respect to the proposed rules included in this Notice. Comments must be submitted in writing to the contact person below no later than September 24, 2026.

**Contact Person:**

Division Chief Carrie Stewart
Fire Marshal
Austin Fire Department
6310 Wilhelmina Delco Drive
Austin, TX 78752
512-974-0181
Carrie.Stewart@austintexas.gov

**TEXT OF PROPOSED RULES**

The text of the proposed rule indicating changes from the current text is attached to this Notice.

**BRIEF EXPLANATION OF PROPOSED RULE**

Rule **R161-26.21** is proposed revisions to the Fire Protection Criteria Manual to assist in the administration, implementation and use of the International Fire Code and the Wildland-Urban Code. The first set of proposed rules is a reorganization of the entire Fire Protection Criteria Manual and includes the creation of a new section for the Wildland-Urban Interface Code. The second set of proposed rules includes new clarification, guidance, and examples of alternative methods of compliance intended for the prevention and control of fires and fire hazards as are necessary to carry out the intent of the Fire Code and the Wildland-Urban Interface Code.

## AUTHORITY FOR ADOPTION OF PROPOSED RULE

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in City Code Chapter 1-2 (*Adoption of Rules*). The authority to implement the Fire Code is established in City Code Sections 25-12-171 (*International Fire Code*) and 25-12-173 (*Local Amendments to the International Fire Code*). The authority to implement the Wildland-Urban Interface Code is established in City Code Sections 25-12-181 (*International Wildlife-Urban Interface Code*) and 25-12-183 (*Local Amendments to the International Wildland-Urban Interface Code*).

## CERTIFICATION BY CITY ATTORNEY

By signing this Notice of Proposed Rule R161-26.21, the City Attorney certifies the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

## REVIEWED AND APPROVED:

Chief Jeff S Kerr on behalf of
Thomas Wocke, Interim Chief
Austin Fire

Date: 08/20/2026

Deborah Thomas
Deborah Thomas
City Attorney

Date: 8/20/2026

## Explanation of Fire Criteria Manual Changes

This update includes revisions to Section 1 Introduction, Section 4 Wildland-Urban Interface Section 6 Fire Protection Systems, and Section 7 Inspections.

The following changes were made:

1) Deletions are shown as ~~strikethroughs and highlighted in yellow~~.
2) Added rules or wording are shown in red and highlighted in yellow.
3) Relocated items are shown in blue text.

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## PREFACE

This document is intended to be a dynamic manual, developed and maintained in accordance with all City policies. This manual will be amended as needed on a quarterly basis to accommodate new technologies and methodologies. Additionally, revisions will be made to further clarify the application of code provisions pertinent to special circumstances encountered. ~~The revisions will occur on or about the first days of January, April, July and October.~~

Public comments and recommendations are crucial in maintaining this manual in an updated form. If a Fire Code provision requiring clarification is encountered, ~~the Fire Department~~ Austin Fire encourages recommendations be submitted to Austin Fire at fireprevention@austintexas.gov. ~~Such recommendations should be placed on the form in Appendix A of this manual, titled "City of Austin Fire Protection Rules Request" and submitted to the Austin Fire Department for consideration.~~

The Austin Fire Department has developed this Fire Protection Criteria Manual to assist in the administration, implementation and use of the Fire Code and the Wildland-Urban Interface 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 and the Wildland-Urban Interface Code.

Contained within are certain rules and policies to be used in interpretation of the Fire Code and the Wildland-Urban Interface Code. It does not address all areas of code enforcement. Check the Fire Code and the Wildland-Urban Interface Code to determine all applicable code requirements.

Contained herein are administrative procedures for the fire protection plan review and inspection processes and references to the applicable ordinances and recognized standards. Also contained in this manual are the rules pertaining to the application of the technical aspects of the Fire Code, Wildland Urban Interface Code and ~~its~~ their associated standards.

"Fire Code" as used in this manual shall be the International Fire Code, ~~2015~~ 2024 Edition, published by the International Code Council as adopted and amended by the City of Austin in Ordinance ~~20171207-98~~ No. 2025410-039 and other related ordinances. The Austin Fire Code is codified as Sections 25-12-171 and 25-12-172 of the Land Development Code.

"Wildland-Urban Interface Code" as used in this manual shall be the International Wildland-Urban Interface Code, ~~2015~~ 2024 Edition, published by the International Code Council as adopted and amended by the City of Austin in Ordinance ~~20100409-40~~ No. 20250410-041. The Austin Wildland-Urban Code is codified as Sections 25-12-181, 25-12-182, and 25-12-183 of the Land Development Code.

~~WUI Area means wildland-urban interface area. WUI Code means the Wildland-Urban Code. Source: Rule No. R161-21.05, 3-22-2021.~~

SECTION 1 INTRODUCTION

## 1.1.0 GENERAL

This Section provides an outline of ~~the Fire Department's~~ Austin Fire's ~~review of~~ involvement in the development process, operational permit requirements, and maintenance inspection requirements.

## 1.2.0 USER INFORMATION

### 1.2.1 Development Process

Austin Development Services is responsible for the development process in Austin. There are 3 phases of development in Austin including Phase 1-Create your project, Phase 2-Review and Revise that includes zoning, subdivision review, site plan review, building plan review, and permits and Phase 3-Build and Inspect that includes inspections, occupancy and compliance.

~~The Fire Department's~~ Austin Fire's involvement in the City~~'s~~ of Austin's development process~~es~~ occurs throughout Phase 2-Review and Revise. Austin Fire is involved in the zoning review, subdivision review, site plan review, and building plan review. In Phase 3-Build and Inspect, Austin Fire is involved in the inspection process. ~~all growth phases of a project. When considering the five (5) major steps in the City's development process, the Fire Department participates as a responsible department in all five (5) of those steps (i.e., Zoning, Sub-division, Site Plan, Building Permit and Construction).~~

For explanations and submittal requirements for each type of review and inspection, visit the Austin Fire Marshal's Office website and Austin Fire's Wildland-Urban Interface Code website.

~~Zoning (step 1) - The Fire Department reviews all zoning cases for compliance with the Fire Code and the WUI Code.~~
~~Subdivision (step 2) - The Fire Department reviews all subdivision plans for compliance with the Fire Code and the WUI Code.~~
~~Site Plan (step 3) - Fire Department Review for access and special hazards related to use and sufficient water availability at site and review for compliance with the WUI Code.~~
~~Building Permit (step 4) - Complete Fire Code review for structural, occupancy, use, equipment and processes. When required for ignition resistant construction, review for compliance with the WUI Code.~~
~~- Complete review of all fire protection systems.~~
~~- Complete Hazardous Materials review.~~
~~- Complete water supply and fire flow review.~~
~~Construction (step 5) - Construction inspections (e.g., site inspections, hydrostatic tests prior to cover up, etc.).~~
~~- Certificate of occupancy inspections.~~
~~- Hazardous materials inspections during construction and for certificate of occupancy.~~

### 1.2.2 Operational Permits

Austin Fire issues operational permits for hazardous materials use and storage, high piled storage, and fire protection systems. Operational permits must be obtained or up to date prior to the issuance of a Certificate of Occupancy.

Operational permits require inspections at regular intervals. Austin Fire Marshal's Office is the lead agency that performs these inspections.

For more information on operational permits and how to obtain them, please visit the Austin Fire Marshal's Office website.

### 1.2.3 Maintenance Inspections

~~Subsequent to the~~ After issuance of the C~~c~~ertificate of O~~o~~ccupancy, ~~the Fire Department~~ Austin Fire Marshal's Office is the lead agency in the maintenance inspections for ~~projects~~ sites and occupancies. For more information on maintenance inspections including State of Texas required inspections please see Section 7 of this Manual and visit the Austin Fire Marshal's Office website.
~~Additionally, the Fire Department issues several permits for which inspections are required. These permits may be issued and/or renewed subsequent to the certificate of occupancy.~~

~~The Fire Code and the WUI Code are technical based documents and do not elaborate upon the details of specific review and inspections processes which may be used for code implementation. Sections 2 and 3 offer administrative information pertaining to the purpose, code and standard references, permits and procedures for the various processes in which the Fire Department participates.~~

~~Section 4 of this manual provides rules used to administer and implement the particular provisions of the Fire Code, WUI Code, National Fire Protection Association Standards and the local amendments.~~

~~To determine the necessary submittal requirements needed to demonstrate compliance with the Fire Code, and the WUI Code, see the Building Criteria Manual and Appendix E of this manual.~~
~~Source: Rule No. R161-21.05, 3-22-2021.~~

## 1.3.0 ~~WATER AVAILABILITY FOR FIRE REVIEWS~~ SUBMITTAL REQUIREMENTS FOR FIRE PROTECTION WATER SUPPLY

### 1.3.1 ~~Administrative Information~~ Fire Flow Requirements

A. ~~The water construction documents review shall encompass all water construction documents pertaining to the construction or installation of site related fire protection water supply facilities or appliances within the jurisdiction of the City of Austin.~~

~~B. The purpose of this Section is to outline the review with respect to compliance with the Fire Code (Chapter 25-12, Article 7), Chapter 5, Section 507, "Fire Protection Water Supplies."~~

Fire Code Section 507.3 requires that the amount of fire flow needed for any new commercial or residential building, portions of buildings or facilities, shall be determined by an approved method. Appendix B of the Fire Code has been adopted by Austin Fire as the approved method and has been locally amended. Austin Fire will determine or re-evaluate the required fire flow at the time of plan review.

Below are the plan submittals for which the required fire flow will be determined or re-evaluated.

1. Site plan review
2. Site plan review of revisions, corrections, and exemptions when new structures are added
3. Site plan review of revisions, corrections, and exemptions of released site plans that have required fire flow increases due to additions to existing structures
3. Subdivision review
4. Residential building plan review for new construction when required to be reviewed by Austin Fire
5. Residential building plan remodels when required to be reviewed by Austin Fire and when new structures are added,
6. Residential building plan remodels when required to be reviewed by Austin Fire and when plans have required fire flow increases due to additions to existing structures

### 1.3.2 ~~Submittal Requirements for Water Plans~~ Confirmation of Available Water Supply

A. Application for Review.

~~All water construction documents submitted to the City of Austin Fire Department must be accompanied by a fully completed application for review. Such water construction document reviews may be made concurrently to subdivisions and building permit review and applications.~~

B. Format of Submittals

~~All water construction document submittals shall be folded so that no single section is greater than nine (9) inches in width and twelve (12) inches in length. This requirement shall apply to blueprints, manufacturer's data sheets, hydraulic calculations and other requested information. This requirement does not apply to mylars or similar reproducible documents.~~

Austin Fire requires a fire flow test to confirm adequate fire flow is available to meet the required fire flow for the site. This applies to both commercial and residential sites.

1.3.2.1 ~~Plans and Drawings~~ Municipal Water Supply Fire Flow Tests

Fire Code Section 507.1 requires that an approved water supply be provided to meet the required fire flow. Austin Fire approves water supply based on a fire flow test including fire flow test on private fire hydrants being supplied by the municipal water supply.

When the supplied water is from a municipal water supply, a fire flow test is required to be submitted when fire flow is being determined or re-evaluated per Section 1.3.1. A fire flow test is not necessary at submittal if Austin Fire has a fire flow test on file that can establish adequate available supply for the site.

Fire flow tests provided must meet the requirements listed below:

1) At the time of application, fire flow test results must be no more than one year old.
2) The test must be conducted at the nearest fire hydrant, or another hydrant within a 2 to 3 block radius (if approved by the Fire Code Official) and must be on the same water system or pressure zone.
3) All fire flow tests must be performed by Austin Fire.
4) Third-party fire flow tests will not be accepted.

For residential building permit applications within a new subdivision, a single fire flow test may be accepted for a group of sites larger than 2 to 3 blocks, provided they are within the same water system or pressure zone, as determined by the Fire Code Official.

For more information on how to request a flow test, visit the Austin Fire Marshal's Office website.

1.3.2.2 ~~Manufacturer's Literature~~ Alternative Means of Water Supply

~~All water construction document submittals shall include manufacturer's data sheets on all material and devices that are to be installed. Manufacturer's data sheets shall include the technical listing agencies (U.L., F.M.) for each device if applicable.~~

Alternative means of water supply, including supply tanks, must be approved by the fire code official. Only systems designed by a design professional will be considered. Design and components must meet the requirements of the applicable NFPA Standard. Design information for alternative means of water supply must be provided at the time of plan submittal.

1.3.2.3 Hydraulic Calculations

Hydraulic calculations are required to be submitted by a design professional using an approved method.

Hydraulic calculations shall be provided at the time of submittal for the addition of new private fire water supply lines. Below are the submittal requirements

Private fire protection water supply systems shall comply with the currently adopted edition of National Fire Protection Association Standard (NFPA) 24, the "Standard for the Installation of Private Fire Service Mains and Their Appurtenances", ~~NFPA 24, 2010 Edition.~~

~~Drawings shall be drawn on standard size sheets that can be easily duplicated and shall show the following information:~~

~~A. Date.~~
~~B. Scale (no smaller than 1:50, prefer 1'30).~~
~~C. North arrow.~~
~~D. Key plan showing location of the project.~~
~~E. Address, if available.~~
~~F. Title under which the project is to be recorded.~~
~~G. Name, address and phone number of owner.~~
~~H. Name, address and phone number of person preparing the drawings.~~
~~I. Name, signature and seal of professional engineer.~~
~~J. Name, address and phone number of contractor.~~
~~K. City of Austin file number.~~
~~L. Total fire flow for project.~~
~~M. Sources of water supply with pressure and elevation.~~

~~N. Underground pipe size, length, weight, material, point of connection to City main; type of valves, meters and valve pits; depth that top of pipe is laid below grade.~~
~~O. All fire protection appliances, type, location, arrangement, size, number of inlets, threads, support, drainage provided (i.e. hydrants, monitors, etc.).~~
~~P. Hydraulic reference points clearly labeled.~~

~~All hydraulic calculations shall be concise and clear. To determine the type of hydraulic calculations that are required for certain projects, refer to the rules for International Fire Code Section 507.1. Hydraulic calculations include the following information:~~

The following information must also be included:

A. ~~Title under which project is to be recorded.~~ Project name as submitted to City of Austin

B. Location of project including address, if applicable Address

C. Name, address, and phone number of person preparing the calculations

D. City of Austin ~~file~~ plan submittal number

E. All hydrants necessary to meet fire flow, flowing simultaneously

F~~E~~. Hydraulic reference points clearly labeled from water construction blueprint

G~~F~~. Pipe number, diameter, and length, clearly noted from water construction prints

H~~G~~. The coefficient of roughness for each type of pipe being calculated

I~~H~~. Director of flow in each pipe section

J~~I~~. The velocity in each pipe section

K~~J~~. The loss of pressure in each pipe section

L~~K~~. Grade elevation of each hydraulic reference point

M~~L~~. Pressure available at each hydraulic reference point

N~~M~~. All demands on water system and hydraulic reference points of those demands

O~~N~~. All fire demands shall be noted and highlighted

P~~O~~. Total fire and domestic demands on system

Q~~P~~. Name, signature, and seal of professional engineer

1.3.2.4 Water Supply Information

~~Available water supply data including a graph which compares the system demand to the available supply information shall be included on the~~

R. The size of the City water main(s) and whether the main(s) is/are a dead-end or circulating type. If the main(s) is/are a dead-end type, provide the distance to the nearest circulating main and the size of that main. ~~Also describe in detail any other source of water supply. All water flow test data shall be shown on the plans and shall include the following information:~~

~~A. Location and elevation of static and residual test gauge with relation to the project reference point.~~
~~B. Flow location.~~
~~C. Static pressure, (pounds per square inch).~~
~~D. Residual pressure, (pounds per square inch).~~
~~E. Pitot pressure, (pounds per square inch).~~
~~F. Flow, (gallons per minute).~~
~~G. Date.~~
~~H. Time.~~
~~I. Test conducted by.~~
~~J. List of equipment utilized in test.~~
~~K. Number, size and roughness coefficient of outlet(s) being flowed.~~

## 1.4.0 FIRE PROTECTION WATER RULES

### CITY OF AUSTIN FIRE PROTECTION RULE ~~SP11~~FPW1

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 507
The standard for required fire flow shall be as determined in Appendix B of the 2024 International Fire Code.

Where buildings are protected throughout by an approved automatic sprinkler system, fire flow may be reduced in accordance with International ~~the~~ Fire Code Appendix B, Section B105.2. ~~provided the occupancy is not group H occupancy or group S-1 with high-piled rack or high rack stock, as defined in the International Fire Code~~

~~When actual fire flow for a project is undetermined (e.g., when buildings are not yet defined), the fire flow shall not be less than the flow outlined in the table below:~~

~~TABLE 507-1~~
~~WATER SUPPLY DETERMINATION~~

| ~~Occupancy/Use~~ | ~~Minimum Water Supply (gpm)~~ |
|---|---|
| ~~Residential, Single-Family, <3,600 sq ft~~ | ~~1,000~~ |
| ~~Residential, Single-Family, »=3,600 sq ft~~ | ~~2,500~~ |
| ~~Residential, Multifamily~~ | ~~3,500~~ |
| ~~Retail~~ | ~~3,500~~ |
| ~~Storage~~ | ~~3,500~~ |
| ~~Industrial~~ | ~~3,500~~ |
| ~~Source: Austin Fire~~ | |

~~For the purposes of this rule, the above referenced uses shall carry the following definitions:~~
~~A. Residential Uses.~~
~~RESIDENTIAL SINGLE FAMILY — occupancies or structures in which the primary use is the housing of one (1) or (2) two families in a single structure.~~
~~MULTIFAMILY — Occupancies or structures in which the primary use is the housing of three (3) or more families in a single structure.~~
~~B. Commercial Uses.~~
~~MERCANTILE — Occupancies or structures in which the primary use is the sale of products or a service. Retail includes sales areas, assembling areas in which no manufacturing is taking place, administrative or instructional offices or low bulk storage required for conducting business.~~
~~STORAGE — Occupancies or structures in which the primary use is the bulk storage of products or property in a single structure. Storage includes all unclassified structures which may be used as outlined in Chapter 32 of the International Fire Code.~~
~~INDUSTRIAL — Occupancies or structures in which the primary use is the manufacturing of a product or components for a final product. Industrial may include the assembling of components into a final product.~~

### CITY OF AUSTIN FIRE PROTECTION RULE ~~SP13~~FPW2

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 507.1 ~~Hydraulic Design~~ Required Water Supply
~~A. For the purposes of this rule, a hydraulically designed system is one in which pipe sizes are selected on a pressure loss basis to provide a prescribed fire flow (gallons per minute at 20 psi residual system pressure).~~

A~~B.~~ All water construction documents shall have hydraulic calculations supporting the specified pipes sizes. Calculations shall meet the following requirements.

~~C. Flow Test.~~

~~1. Flow test data shall take into account minimum pressure conditions due to heavy water demands on the system, i.e., heavy summer usage.~~

2. Flow test information that is provided by the City of Austin is done so upon request. Such information represents the water supply characteristics in the immediate area on the noted date and time. The City of Austin does not guarantee that this data will be representative of the water supply characteristics at any time in the future. The engineer or designer of record will be fully responsible for the use and application of such data to ensure proper design and compliance with appropriate codes.

D. Calculations.

1. Formula~~e~~s.

(A) Friction loss formula

Pipe friction losses may be determined by any recognized hydraulic formula or method. These formula~~e~~s or methods include Hazen-Williams, Darcy-Wiezbach, etc.

(B) For underground and normally flowing mains, calculate pipe friction loss in accordance with the chosen formula with friction loss coefficients ("C") valves from Table 507-2 below. Manufacturer supplied C values are also acceptable.

TABLE 507-2
**ACCEPTED "C" VALUES**
*(For Flowing Mains and Underground Mains)*

| Pipe Material | Hazen-Williams "C" Valve |
|---|---|
| Unlined cast or ductile iron | 80 |
| Black steel | 80 |
| Galvanized Steel | 80 |
| Plastic | 110 |
| Resin lined | 110 |
| Reinforced cement | 80 |
| Cement lined cast or ductile iron | 80 |
| Copper | 110 |
| Source City of Austin | |

(C) Velocity formula. Water velocity may be determined by any recognized formula.

(D) Units. All output data shall be present in the following units:

| Item | Units |
|---|---|
| Flow | Gallons per minute (gpm) |
| Pressure | Pounds per square inch (psi) |
| Velocity | Feet per second (fps) |

B~~2~~. Calculations Procedure.

~~a~~.1. Calculating System from Constant (City of Austin) Supply.

~~i~~(A) The calculated fire flow shall be delivered to the most hydraulically remote area of the project while maintaining a pressure of 20 pounds per square inch in all portions of the water supply system being analyzed.

~~ii~~(B) The domestic water supply flow shall be addressed as required by ~~the~~ Austin Water.

~~iii.(~~C) Velocity. A maximum velocity of ten (10) feet per second shall not be exceeded in the water supply (upstream of sprinkler system, standpipe system check valve, or a six (6) inch tap for a fire hydrant) network while the fire flow is being delivered.

iv. Time duration. Mathematical simulation may be necessary to demonstrate system reaction before, during and after an extended fire flow period from IFC Tables B105.1(1),B105.1(2) and B105.2.

~~b. Calculating Systems from Limited Supply Sources. Since limited supply source is less reliable than a constant supply during peak domestic usage, the following restraints shall be imposed for systems taking supply from limited sources (i.e., ground, elevated and well storage):~~
~~II. Calculations shall begin from the point of 80 percent of the limited supply's total (full) capacity.~~
~~ii. Fire flow, domestic and velocity requirements are as outlined above.~~
~~ii. Time duration. An extended period mathematical simulation (EPS) shall be required to demonstrate the system's reactions before, during and after the fire flow period. The limited supply shall be considered "hydraulically empty" when it is no longer a benefit to the system or when system flow or pressure drops below what is required. The total fire flow period shall not be less than the duration stated in IFC Tables B105.1(1),B105.1(2)and B105.2.~~

CITY OF AUSTIN FIRE PROTECTION RULE ~~SP14~~FPW3

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 507.5 Fire Hydrants

A. Type of Fire Hydrants.

1. All hydrants must meet City of Austin Water and Wastewater standards.

2. Every hydrant installed, regardless of whether private or City maintained, shall have not less than two (2) 2-1/2 inch outlets with National Standard Thread and one (1) 4 inch pumper outlet with City of Austin thread (#16, six (6) threads per inch, blunt start or "Higbee Cut," 4.859 inch outer diameter, 4.625 inch root diameter).

3. Every hydrant installed shall be capable of flowing not less than 1250 gpm at 20 psi residual pressure.

B. Location of Hydrants.

1. A fire hydrant is required for every 1,250 gpm, or fraction of 1,250 gpm, of required fire flow. ~~Austin Fire requires a minimum of one (1) hydrant within 400 feet of all portions of exterior walls (first floor) of new buildings, other than single family and duplex dwellings which are less than 3,600 square feet in area. For buildings that require a fire flow of 1,500 gpm up to and including 2,500 gpm, a second hydrant is required within 500 feet of all portions of exterior walls (first floor).~~

~~a. For single family and duplex dwelling structures less than 3,600 square feet the distance to a hydrant as measured by this section and rule shall be less than or equal to 600 feet.~~

~~b. For structures that are protected by automatic sprinklers, the distance to each of the first two (2) hydrants shall be less than or equal to 500 feet~~
~~2. These measurements are taken around the perimeter of the building and down the access road to the hydrant (EACH MEASUREMENT IS ALONG THE PATH OF TRAVEL AND IS NOTTAKEN AS A RADIUS). For required fire flows in excess of 2,500 gpm, the distance from additional hydrants will be located less than 1,000 feet from the structure but also hydraulically evaluated to ensure that the flow can be delivered through the length of large diameter fire hose necessary to reach the planned structure.~~

C. Installation of Hydrants

1. Hydrants shall be installed in accordance with City of Austin Standards.

a. If it appears likely that fire hydrants are vulnerable to vehicular damage, appropriate crash posts (bollards) shall be provided. Crash posts shall be four (4) inch schedule 40 iron pipe, cement filled and a minimum of three (3) feet high with two (2) feet of piping below the grade. No obstructions shall exist within a three (3) foot radius of fire hydrants.

b. Fire hydrants must be installed with the center of the four (4) inch steamer opening at least 18 inches above finished grade. The four (4) inch opening must face the driveway or street and must be totally unobstructed to the street. Set back from the face of the hydrant to the back of the curb shall be in accordance with City of Austin Standards except that on private property, set back shall be three (3) to six (6) feet to avoid vehicular damage, unless specifically approved by the Fire Chief.

~~2.~~ ~~Hydrants shall be installed at the intersection of two (2) streets and in between intersections at distances not in excess of 300 feet between hydrants or as approved by the Fire Chief.~~

~~3.~~ ~~Hydrants shall be installed on both sides of all divided roads/ highways. Roads/highways where opposing lanes of traffic are separated by a vehicle obstruction shall be considered a divided road/highway.~~

42. No obstructions shall be within three (3) feet radius of the hydrant. The four (4) inch pumper connection shall be totally unobstructed to the street or drive.

SECTION 2 SITE PLANS

## 2.1.0 ADMINISTRATIVE

The site plan and subdivision review process for the Fire Code and WUI Code shall encompass all changes in use of property, development on land or shorelines and development or construction requiring a building permit affecting or implementing fire protection, prevention or suppression. Site Plan exemptions shall be outline Chapter 25-5 of the Code of the City of Austin, but such exemptions shall not waive any requirements of the Fire Code.

## 2.2.0 JURISDICTION INFORMATION

~~The~~ Austin Fire ~~Department~~ reviews site plans for compliance with the currently adopted version of the Fire Code and the WUI Code including the local amendments, certain applicable sections of the Building Code and for impact of the design on potential emergency operations. The type, number and location of fire-fighting appliances shall be reviewed to assure compatibility with respect to onsite construction and the hazards of fire and explosion. Any site permit application in AFD's Jurisdiction (Austin Full Purpose or Limited Purpose areas) that has been designated as in the WUI area will be reviewed for compliance with the WUI Code. In addition, where practical difficulties in meeting site requirements are encountered, alternate material and methods of Fire Code and WUI Code compliance will be reviewed at this time. ~~Source: Rule no. R161-21.05. 3-22-2021.~~

## 2.3.0 SUBMITTAL REQUIREMENTS FOR SITE PLANS

Submittals are initiated through ~~the~~ Austin Development Services ~~Department~~ for site plan and development permits. Such submittals will be made in accordance with the Land Development Code (LDC). ~~Source: Rule No. R161-21.05, 3-22-2021.~~

### 2.3.1 Plans and Drawings

Drawings shall be drawn on standard size sheets that can be easily duplicated and shall show the following information:

A. Address, if known.
B. Key map showing location of site.
C. Symbol/legend key and scale.
D. Name, signature and seal of registered professional engineer.
E. North arrow.
F. Dimensions of vertical clearance of all overhead obstructions (i.e., tree limbs, overhangs, canopies, headache bars).
G. Proposed traffic patterns of driveways on site plan (i.e., one or two way operation), identifying and labeling all physical barriers to vehicular access including gates, bollards, landscaping, etc.
H. All driveway dimensions, grades, turn radii and design specifications; include materials, bearing load capacity, etc. (T-section, hammerhead, cul-de-sac)
I. Dimensions of all existing and proposed buildings, parking lots and vehicular use areas, landscape islands, peninsulas and medians, amenities, walls, fences, sidewalks, and any other land improvements. All roadways, driveways, overpasses, bridges, culverts, and decorative/ pervious pavers shall be labeled and identified with support loads clearly indicated.
J. Location of proposed and existing structures, landscaping, public fire hydrants (within 500 feet of the site measured along the means of fire department access), private fire hydrants and the fire department access roadways.
K. Information for each structure on site:
    1. Proposed use
    2. Number of stories
    3. Proposed height to the top occupied floor
    4. Finished floor elevation(s)
    5. Square footage of structure footprint
    6. Total square footage of structure

## 2.4.0 SITE PLAN RULES

A. Rules made by the City of Austin for the Fire Code and WUI Code will be contained within this section. The purpose of this section is to outline the rules issued by the City of Austin pertaining to specific codes, standards and amendments. Such rules are promulgated to administer and implement the Fire Code and WUI Code.

B. Rules reference appropriate International Code sections or other adopted standards. Rules are in the same order as the referenced sections. Source: Rule No. R161-21.05, 3-22-2021.

CITY OF AUSTIN FIRE PROTECTION RULE SP1

International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 501.3, 503, and 507

Construction documents related to site plan and building permit approvals shall address general emergency access provisions and construction sequencing that affects fire or life safety. One aspect of meeting this requirement is to include in the site plan submittal general construction notes which should include, but need not be limited to the following.

1. The Austin Fire Department requires final asphalt or concrete pavement on required access roads prior to the start of combustible construction. Any other method of providing “all-weather driving capabilities” shall be required to be documented and approved as an alternate method of construction in accordance with the applicable rules for temporary roads outlined in the City of Austin Fire Protection Criteria Manual.
2. Fire hydrants shall be installed with the center of the four (4) inch opening (steamer) located at least 18 inches above finished grade. The steamer opening of fire hydrants shall face the approved fire access driveway or public street and set back from the curb line(s) an approved distance, typically three (3) to six (6) feet. The area within three (3) feet in all directions from any fire hydrant shall be free of obstructions, and the area between the steamer opening and the street or driveway giving emergency vehicle access shall be free of obstructions.
3. Timing of installations: When fire protection facilities are installed by the contractor, such facilities shall include surface access roads. Emergency access roads or drives shall be installed and made serviceable prior to and during the time of construction. When the Fire Department approves an alternate method of protection, this requirement may be modified as documented in the approval of the alternate method.
4. All emergency access roadways and fire lanes, including pervious/decorative paving, shall be engineered and installed as required to support the axle loads of emergency vehicles. A load capacity sufficient to meet the requirements for HS-20loading (16 kips/wheel) and a total vehicle live load of 80,000 pounds is considered compliant with this requirement.
5. Fire lanes designated on site plans shall be registered with the ~~City of~~ Austin Fire ~~Department~~ and inspected for final approval.
6. The minimum vertical clearance required for emergency vehicle access roads or drives is 14 feet for the full width of the roadway or driveway.

~~CITY OF AUSTIN FIRE PROTECTION RULE SP2~~

~~International Fire Code (LDC Chapter 25-"2, Article 7), Reference Section 503.1.1~~
~~The 150-foot measurement from a fire department access road to a building shall be measured around the building perimeter from the nearest access road to the most distant point of an exterior wall of the first story. (See 901S-1 in City of Austin Standards Manual)~~

CITY OF AUSTIN FIRE PROTECTION RULE SP2

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.2.3

~~The~~ Austin Fire ~~Department~~ requires an all weather driving surface on fire apparatus access roads prior to construction. However, the acceptance of alternative road methods shall be allowed during construction with the approval of the Fire Chief in accordance with Section 104.2.3, 104.2.4, 3307.1 and 3307.1.1 ~~104.8, 104.9 and 3310.1~~ of the Fire Code (LDC Chapter 25-12, Article 7). Any alternative roadway acceptance shall be predicated upon the following:

A. Placement of all underground utilities and/or any other underground installations requiring ditching prior to placement of the roadway itself.

B. Application of the road system in accordance with methods and specifications approved by the Fire Chief.

C. Submittal of a letter by a registered professional engineer which states that the road application is in accordance with the aforementioned methods and specifications and shall include all necessary compaction test reports as required by the Fire Chief (generally 95% proctor or better). Such reports and tests shall be submitted to the Fire Marshal's office prior to building construction.

D. Maintenance of such a road throughout the construction phase of the project to permit required access.

E. A person desiring to construct such a road for building permit purposes shall state in writing the reasons for the necessity of an alternative system. Causes or reasons for requesting such an alternative shall be limited to the following, unless specifically included by the Fire Chief in writing:

1. Construction practices which would, of necessity, constantly damage or destroy an asphalt or concrete application thereby causing unnecessary economic harm to the builder. Such conditions shall include reasonable expectation that the City of Austin may damage the roadway surface through ditching or other methods but specifically exclude any possible damage by concrete trucks, forklifts or similar equipment.

2. Inability to receive over a continuous period [more than three (3) weeks] either cement or asphalt paving material in order to provide the necessary surfacing.

3. Use of a paving material such as grasscrete or interlocking pavers which would of consequence be damaged by heavy trucks and construction activity.

It shall be the responsibility of the applicant to document and cite any of the aforementioned causes or reasons when requesting an alternative roadway approval by ~~the~~ Austin Fire ~~Department~~.

Maintenance:

Should a person receiving approval for an alternative roadway method fail to provide necessary engineering reports showing compaction tests and completion, or fail to maintain in an adequate condition such alternative roads, then the Fire Department may take official action in accordance with Sections 109, 110, and/or 111 of the Fire Code (LDC Chapter 25-12, Article 7).

CITY OF AUSTIN FIRE PROTECTION RULE SP3

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.2.3

~~The~~ Austin Fire ~~Department~~ requires that all weather pavement be of either concrete or asphalt construction.

Access roadways shall be finished by application of an all weather driving surface of hot mix asphaltic concrete or concrete pavement over a flexible base Engineered to provide a load bearing capacity in conformance with City of Austin Standard Specifications for city streets. Any pervious /decorative paving within 100 feet of any building must meet the same vehicle loading requirements. The pervious/decorative paving installation must be designed and sealed by a Professional Engineer, and approved by ~~the~~ Austin Fire ~~Department~~.

CITY OF AUSTIN FIRE PROTECTION RULE SP4

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.2.4

Access roadways shall be designed with an appropriate 25-foot inside turning radius and a 50 foot outside turning radius at turns to accommodate any operational Fire Department apparatus. Turning radii for entrance and exit access roadways must also conform to current City of Austin driveway requirements; therefore, entrances and exits may have to be widened to satisfy both requirements.

Access roadway requirements refer to access roads on private property subject to use by ~~the~~ Austin Fire ~~Department~~ (business drives, apartment drives, etc.). For public street design refer to the City of Austin Standard Specifications and City of Austin Standards Manuals.

CITY OF AUSTIN FIRE PROTECTION RULE SP5

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.2.5

Where Fire Department access roadways are longer than 150 feet and terminate at a dead end, approved provisions for turning around Fire Department apparatus shall be provided. ~~The~~ Austin Fire ~~Department~~ will approve a cul-de-sac with a minimum 50 feet unobstructed radius. A 25' x 80' "T" section or "Hammerhead" turn around is also acceptable, provided that an additional ten (10) feet of right of way around the 25' x 80' dimension can be provided with no obstruction over one (1) foot high. (See 901S-2 in the City of Austin Standards Manual)

CITY OF AUSTIN FIRE PROTECTION RULE SP6

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.2.7

Asphaltic hot mix concrete access roadways shall be engineered not to exceed 13 percent in grade. Concrete roadways shall be designed not to exceed 15 percent in grade. As an alternative where maximum road grades of 13 or 15 percent cannot be provided, a professionally designed sprinkler system may be installed as an alternative provided the building being considered is fully protected and the system is approved by the Austin Fire Department. Maximum immediate grade change or grade change within 20 feet shall not exceed 10 percent. Road grades must also be approved by other regulating departments in addition to Fire Department approval.

CITY OF AUSTIN FIRE PROTECTION RULE SP7

International Fire Code (LDC Chapter 25-12, Article 7) Reference Section 503.3

When used to mark fire zones, signs shall be in accordance with Texas Manual on Uniform Traffic Control Devices. Signs may use either symbols or letters (see 901S-5 and 901S-6 in the City of Austin Standards Manual).

CITY OF AUSTIN FIRE PROTECTION RULE SP8

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 503.6

Gates installed in fire department access roads shall have an unobstructed width of not less than 25 feet for two-direction traffic flow. Gate opening width may be reduced to 15 feet for single lane one-way traffic flow. With prior approval from the fire Prevention Division, access width at a property gate serving two direction traffic may be reduced to 20 feet for a distance not to exceed the 25 foot minimum inside turning radius when the location of the gate is not a potential point of apparatus placement for fire-fighting activities involving nearby structures.

CITY OF AUSTIN FIRE PROTECTION RULE SP9

International Fire Code (LDC Chapter 25-12, Article 7) Reference Section 505

The minimum size for exterior premises identification numbers (master street address numbers) for complexes such as strip centers, malls, apartment complexes, etc. shall be eight (8) inches in height. Exterior business suite and office numbers shall not be less than four (4) inches in height. These numbers shall be clearly distinguishable from the point of Fire Department access.

Whenever a building is set back from a servicing street or roadway at a distance preventing reasonably sized numerals or letters from being distinguished, the address may be posted at the street entrance on a substantial sign when approved by ~~the~~ Austin Fire ~~Department~~. However, when more than one (1) building is located at the same numerical street address, each building must display a complete address including particular alphabetical or numerical building listings and individual occupancy numbers which must be clearly distinguishable from the access road servicing the building. The complete address must contrast with the background to which it is attached.

Multi-occupant buildings shall have all rear entrance(s) to each tenant space individually identified with proper suite/address numbers.

The street address of all projects under construction shall be posted in a conspicuous location prior to the beginning of construction at a particular building site. Temporary numbers may be painted over contrasting background on plywood or other suitable wood boards and clearly displayed on the public street frontage on which the project is addressed. Permanent numbers are required on buildings at completion and must be approved by the Austin Fire Department during the Ccertificate of Oeccupancy inspection.

CITY OF AUSTIN FIRE PROTECTION RULE SP10

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 506

All structures or properties in which access is made difficult due to physical barriers (i.e., gates, fences, bollards, etc.) or where required by the Fire Code in commercial structures in which fire protection systems are installed shall provide a City of Austin approved key box or key switch, as applicable, with the proper keys to gain access to structure or property If there are restrictions on vehicle egress from sites, these requirements shall apply to all such egress gates as well as to access gates. Please see the rule posted for International Fire Code Section 503.6 for gate width requirements.

The location of the key box shall be located at or near the primary Fire Department access into a building or project and on the building side of any gate requiring a key or code for exiting, or as approved by the Fire Department. Examples of such locations are diagramed in Figure 4-3. The approved City of Austin key box shall be a “Knox Box.” Application forms for a Knox Box may be obtained in ~~the City of~~ Austin Fire’s ~~Department~~ Fire Prevention Office. (See 901S-3 in the City of Austin Standards Manual)

CITY OF AUSTIN FIRE PROTECTION RULE SP11

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 507

The standard for required fire flow shall be as determined in Appendix B of the ~~2012~~ 2024 International Fire Code.

Where buildings are protected throughout by an approved automatic sprinkler system, fire flow may be reduced in accordance with International Fire Code Appendix B, Section B105.2 provided the occupancy is not group H occupancy or group S-1 with high piled or high rack stock, or S-2 with high piled or high rack stock, as defined in the International Fire Code.

~~Buildings constructed of Type III, Type IV or Type V construction will be limited to a 50% reduction for sprinklers designed in accordance with IFC Section 903.3.1.2.~~

SECTION 3 BUILDING PLANS

## 3.1.0 ADMINISTRATIVE

A. The Fire Code review during the building permit review process shall encompass all structures subject to the Fire Code and the WUI Code or portions thereof that are constructed, remodeled, added to, relocated or that are subject to an occupancy change except as exempted by Chapter 25-12-11 of the Land Development Code. Fire Code Sections 311, 316, 503, 504, 505, 507, 510, 603, 703, 1029, 1030, and Appendix B apply to all structures including those governed by Chapter 25-12-11 of the Land Development Code.

B. The purpose of this section is to outline the review for adherence to the minimum standards that safeguard life and property from the hazards of fire and explosion. ~~Source: Rule No. 161-21.05, 3-22-2021.~~

## 3.2.0 COMMERCIAL BUILDING PLANS

### 3.2.1 SUBMITTAL REQUIREMENTS FOR BUILDING PERMITS

A. Application for Review.

All building permit construction documents shall be submitted to ~~the City of~~ Austin Development Services ~~Department~~. An application is completed, attached to the plans and is subsequently distributed to ~~the~~ Austin Fire ~~Department~~. Revisions and corrections made to the original set of construction documents must be submitted to the City of Austin Development Services Department for review and distribution.

B. Format of Submittals.

All building construction documents must be submitted in the format as outlined in the Building Criteria Manual and Appendix E of this Manual. ~~Source: Rule No. R161-21.05, 3-22-2021.~~

#### 3.2.1.1 Plans and Drawings

Drawings shall be drawn on standard size sheets that can be easily duplicated and shall show the following information:

1. Date
2. Scale
3. North arrow
4. Symbol/legend key
5. Title under which the project is to be recorded
6. Address of project
7. Key/location map
8. Name, signature and seal of a registered professional engineer
9. ~~Planning and Development Review Department~~ Austin Development Services file number
10. City of Austin zoning number
11. Code Standard and year of edition utilized

#### 3.2.1.2 Calculations

All calculations, if provided for Building Permit review, shall be concise and clear. All computer generated calculations may need to be accompanied by a detailed description of the computer program's operation. For companies who intend to submit computer generated calculations for numerous projects, all based on the same program, the company may elect to submit three (3) copies of detailed description of their program operations on a one-time basis thereby eliminating the need to provide copies with each submittal. The three (3) one-time copies shall be provided in a loose-leaf type binder with the company's name, address, phone number, state license number and program name on the outside of the binder. When required, the following information shall be included on the calculation sheets:

1. Title under which project is to be recorded
2. Address of project
3. Appropriate state designer's/installer's license and registration numbers or name, signature and seal of registered professional engineer
4. Identification of type of calculations (method and system type)
5. Clearly noted all units of measure and abbreviations

3.2.1.3 Specifications Manuals

Specification manuals shall be submitted as part of the building construction documents. These manuals shall be concise and clear and include the performance objective, sequence of operation and material utilized for each fire protection feature. As soon as the design is finalized, manufacturer literature shall be submitted for all fire protection system components.

3.2.1.4 Site and Water Plan Confirmation

The previously approved site and water plans must be submitted with the building construction documents. These plans shall include the means of Fire Department access and all noted fire lanes. If these plans have not been approved prior to building construction document review, they will be reviewed at this time.

3.2.1.5 Fire Lane Review

Fire lanes shall be reviewed in their entirety during the building permit review process, unless this review has been performed during the site plan review process.

3.2.1.6 Standpipe Systems

The need for and design basis for standpipe systems will be required to be identified at the time of Building Permit review. Standpipe systems and fire hose systems will be reviewed in their entirety prior to system installation.

3.2.1.7 Fire Pumps

Estimated volumetric and pressure demand of fire pumps shall be submitted at the time of Building Permit Review. Fire pumps used in conjunction with standpipe and sprinkler systems, as well as other fire protection systems and private fire service underground water systems will be entirely reviewed prior to system installation.

3.2.1.8 Automatic Sprinkler Systems

The need for and design basis for ~~standpipe~~ Sprinkler systems will be required to be identified at the time of Building Permit review. ~~Standpipe systems and fire hose~~ Sprinkler systems will be reviewed in their entirety prior to system installation.

3.2.1.9 Smoke Control and Smoke Removal Systems

Smoke management systems will be reviewed in their entirety during the building permit review. For this complete review to take place, the following information shall be included:

A. A description of the system type, what the system is designed to achieve, as well as system operation (manual and automatic modes)

B. Complete set of prints/plans showing the following:
   1. Architectural details of building (walls, corridors, doors, partitions, etc.).
   2. Location, size and capacity of all smoke control/removal fans.
   3. Location and size of all smoke dampers.
   4. Location and type of all related smoke detectors, heat detectors, water flow detectors as well as any other automatic interface devices.
   5. Full details concerning location and arrangement of automatic and manual controls.

6. Location, size and arrangement of all make-up air devices.
7. All electrical, pneumatic, mechanical or hydraulic equipment used for system operation.
8. Curtain board location, size and construction.
9. Type, size and location of all openable or removable windows.

C. A full, detailed, testing criteria schedule.

D. Calculations. A set of calculations including all volumetric considerations and expected smoke generation levels of projected fire scenario.

E. Smoke management systems shall be installed and designed in accordance with the latest adopted edition of the International Fire Code, International Building Code, Uniform Mechanical Code and any applicable local amendments and rules.

See Section 3.2.1.18~~.15~~ for submittal requirements for the review of stairwell/vestibule pressurization systems.

3.2.1.10 Smoke and Heat Vents

Smoke and heat vents will be reviewed in their entirety during the building permit review. For a complete review to take place, the following information needs to be included:

A. A brief description of the method of design.

B. Complete set of prints/plans showing the following:
1. Location, size and type of all smoke and heat vents.
2. Location and type of means of manual activation.
3. Curtain board location, size and construction.

C. Calculations. A set of calculations including all volumetric considerations and commodity hazard classification

D. Smoke and heat vents shall be designed in accordance with the latest locally adopted editions of the International Fire Code, International Building Code and any applicable local amendments and rules.

3.2.1.11 Emergency Standby Power Systems

Emergency and standby power systems will be reviewed in their entirety during the building permit review. For a complete review to take place, the following information needs to be included.

A. A complete description of the system operation, function and time required to reach full power.

B. Complete sets of prints/plans showing the following:
1. List of all equipment required to be supplied with emergency power.
2. Location of all equipment and associated wiring and architectural details of the enclosure.
3. Wiring schematics of all control panels, power panels, transfer switches and all related equipment.
4. Location, size, type and arrangement of fuel storage (or battery storage if applicable).

C. Manufacturer's Literature. A complete manufacturer's literature package shall be submitted for approval. This package shall include type, size and maximum power output of the equipment to be installed.

D. Calculations. A full set of detailed power calculations including all supplied equipment power draws (including start-up).

E. Emergency power and standby systems shall be designed in accordance with the latest locally adopted editions of the International Fire Code, International Building Code, NFPA 110, NFPA 37 and any applicable local amendments and rules.

3.2.1.12 Fire Alarm, Detection and Emergency Communications Systems

As a minimum for building permit review, fire alarm/detection/emergency communications systems shall show a complete and accurate layout of all system devices. System devices include but are not limited to fire alarm control units, fire alarm initiating devices, fire alarm notification appliances (with candela ratings when appropriate), fire alarm supervisory devices, and firefighter telephone jacks. Supervisory devices include but may not be limited to fire sprinkler monitoring devices, duct smoke detectors, smoke dampers, monitoring devices for other extinguishing systems, and heat tracing control units for water-based fire protection systems.

As an alternate approach, fire alarm and associated systems may be conceptually identified at the time of Building Permit Review. Conceptual design approaches shall specify the area(s) to be protected by the fire alarm system, required compliance with NFPA 72, and general information concerning the building code and/or fire code bases for the system. Conceptual designs shall not include specific devices or device locations, and shall specifically defer all detailed design to the licensed contractor and alarm planner during the development of shop drawings for installation.

Detailed fire alarm, detection, and emergency communication system shop drawings will be reviewed in their entirety prior to system installation.

3.2.1.13 Cooking Hood Extinguishing Systems

Engineered commercial cooking exhaust hood extinguishing systems provided for protection of kitchen grease hoods and ducts will be entirely reviewed during the building permit review. Pre-engineered systems descriptions shall include the extinguishing agent planned, the supply and exhaust air arrangement and controls, and the listing or approval agency (e.g. UL, FM).

3.2.1.14 Portable Fire Extinguishers

A. The location, type and size of all portable fire extinguishers shall be noted on the building permit floor plans. If portable extinguishers are to be mounted in recessed cabinets, then a detail is required outlining the method of cabinet installation.

B. Portable fire extinguishers shall be in accordance with the latest locally adopted editions of the International Building Code, International Fire Code, NFPA 10, and any applicable local amendments and rules.

3.2.1.15 Atrium Review

At the building permit stage, atrium smoke management systems shall be submitted for review and approval as described in Section 3.1.92.6. Prior to system installations, fire sprinkler and fire alarm system contractor's drawings and calculations (shop drawings) shall be submitted for review and approval as described in this section ~~Sections 3.2.5, 3.2.6, 3.2.8 and 3.2.9~~.

3.2.1.16 High-Rise Review

High-rise construction documents will be reviewed in the same manner as other structures. The review will encompass all special features that are specifically required for all high-rise buildings. The reviews must be completed prior to construction or installation of features or systems, as applicable. For reviews to take place the following information shall be included:

A. Complete set of prints/plans showing the following:

1. Fire control room location and dimensions
2. Location, type and maximum dimensions of all equipment contained within the fire control room (i.e., fire alarm/detection panels, public address and voice alarm system panels, fire department communication panels, elevator control panels, emergency generator control panel, HVAC control panel, etc.). For the submittal requirements on a particular system, see the appropriate section of ”Specific Reviews.”

3. Outside telephone
4. Cabinet for handsets to the fireman phones
5. Secured building key box
6. Confirmation of all required systems

B. High-rise construction documents shall be designed in accordance with the latest locally adopted editions of the International Building Code, International Fire Code, Uniform Mechanical Code, Uniform Plumbing Code and any applicable amendments and rules.

3.2.1.17 Special Ventilation Systems

Special ventilation systems provided for the removal of vapors, gases and particulates will be reviewed as part of the building construction document review. For this review to take place, the following information shall be included:

A. A complete material safety data sheet on each material being ventilated.

B. A description of the system type, operation and means of vapor, gas, particulate removal.

C. Complete set of print/plans showing the following:
1. Location, dimensions and construction of area or equipment being ventilated
2. Location, dimensions and construction of all ductwork
3. Location and size of make-up air inlets
4. Size, type and location of all fans
5. Complete wiring diagrams
6. Type and location of all manual controls
7. Type and layout of control system (electric, pneumatic, hydraulic, etc.)
8. A full set of calculations shall be submitted. These calculations shall include such information as all work being completed in the area being vented, volumetric dimensions of area being vented, system velocity, material weight being vented, etc.

3.2.1.18 Stairwell/Vestibule Pressurization Systems

As a minimum. stairwell/vestibule pressurization systems shall be conceptually reviewed during the building permit process. A complete and detailed review of the system design shall be required prior to system installation. For a complete review to take place, the following information shall be submitted:

A. Complete set of plans/prints showing the following:
1. Architectural details of the shaft including construction, all penetrations (including doorways), seals/gasketing provided
2. Size, type and location of all fans
3. Size, type and location of all barometric reliefs
4. Type and location of all manual/automatic controls
5. Size, location and type of all louvers and dampers
6. Location, dimensions and construction of all ductwork
7. Size and location of all air injection and removal points
8. Location and size of all system air intakes and exhausts
9. Location, dimensions and construction of all vestibules
10. Type of control equipment (i.e., electric, pneumatic, hydraulic, etc.)

B. Complete set of calculations noting the following:
1. Pressure(s) to be obtained
2. Temperature assumptions
3. Differential pressures (stack effect)
4. Leakage factors (i.e., cracks, doors/windows open, vents, etc.)

5. Air velocities

6. Pressure loss due to friction

C. Stairwell/Vestibule pressurization systems shall be designed in accordance with the latest locally adopted editions of the International Building Code, International Fire Code, Uniform Mechanical Code and any applicable amendments and rules.

3.2.1.19 Key Boxes

A. Location and size of “Knox Box” shall be clearly noted on the building construction documents.

B. The Knox Boxes shall be installed in accordance with the latest locally adopted editions of the International Building Code, International Fire Code and any applicable amendments and rules.

3.2.1.20 Explosion Venting

As a minimum, explosion vents for hazards involving deflagrations of dusts, gases and mists in equipment room, buildings or other enclosures will be reviewed for conceptual compliance during the building permit review. A complete and detailed design review shall be required prior to construction/installation. For a complete review to take place, the following information needs to be included:

A. A description of design method, what the venting proposal designed is to achieve, venting type and operation.

B. A full set of prints/plans showing the following

1. Design standard

2. Room, building, equipment that is being vented (include all structural and architectural details)

3. Size, location, shape and arrangement of open (unobstructed) or semi-obstructed room/building vents such as louvers, hanger type doors and open roof vents

4. Size, location, shape and arrangement of closed/sealed building vents such as doors, windows, movable sashes, roof panels, wall panels, skylights, monitors

5. Size, location, shape and arrangement of closed/sealed equipment vents such as charging doors, inspection ports, diaphragms (cloth, paper, plastic, metal) and any associated diaphragm cutter

C. A full set of data sheets concerning the explosive materials and their properties. The details shall include the following as applicable:

1. Flammable range (limits)

2. Explosive range (limits)

3. Auto-ignition temperature

4. Fire point

5. Flash point

6. Material's rate of pressure rise

7. Material's maximum pressure attained

8. Dust particle size

9. Minimum input energy for ignition

10. Ignition temperature

11. Dust class

12. Fundamental burning velocity and flame speed

D. A full set of calculations including information such as vent ratios, all surface and volumetric considerations, vent release pressure, maximum pressure not to be exceeded, initial turbulence, initial temperature and pressures, fuel concentration, oxidizer concentration, presence of any admixed moisture or inert diluents and any hybrid mixtures.

E. Explosion vents shall be designed in accordance with the latest locally adopted edition of the International Building Code, International Fire Code, NFPA 68 and any applicable local amendments and rules.

3.2.1.21 Basement Pipe Inlets

A. Basement pipe inlets used for the application of water from fire fighting cellar pipes and distributors will be reviewed in their entirety during the building permit review.

B. For a complete review to take place, the following needs to be included:

1. A full set of prints/plans showing the following:
   (A) Architectural details of basement and floor above basement
   (B) Size, type, location and arrangement of basement pipe inlet
2. Basement pipe inlets shall be designed in accordance with the latest locally adopted editions of the International Fire Code, International Building Code and any applicable local amendments and rules.

3.2.1.22 Special Hazards

A special hazard is any hazard that constitutes a high potential for life or property loss. All special hazards and their protection shall, as a minimum, be conceptually reviewed during the building permit review process. For other hazards not listed below, consult the Fire Prevention Division of ~~the~~ Austin Fire ~~Department~~ to determine the requirements.

A. Operation Process Fire Hazards. Any occupancy that utilizes any process that may be or constitute a fire hazard shall submit detailed operational description and detailed prints showing layout of the process.

B. Hazardous Materials.

1. Format of Submittals

   All building construction documents must be submitted in the format as outlined by ~~the City of Planning Protaction and Development Review Department~~ Austin Development Services.

2. Calculations

   All calculations shall be concise and clear. To determine the type of calculations that are required for a certain project, refer to specific reviews. The following information shall be contained on the calculation sheet:
   (A) Title under which the project is to be recorded
   (B) Address of project
   (C) Name, signature and seal of registered professional engineer
   (D) Identification of type of calculations
   (E) Clearly noted units of measure and abbreviations
3. Product/equipment. Where specific products or equipment are to be used in the containment or utilization of hazardous materials, the following information shall be provided:
   (A) Manufacturer's specifications
   (B) UL or FM listing
   (C) Independent laboratory testing results (as required to verify compatibility of product and material stored)
   (D) Name, signature and seal of a registered professional engineer

C. Specific Reviews. Flammable/combustible liquid storage/use areas inside buildings. For those facilities designed for the storage and/or use of flammable liquids inside of buildings, the following information shall be provided:

1. Classification of liquid(s)
2. Maximum anticipated liquid volume
3. Electrical system classification
4. Ventilation calculations
5. Containment and drainage calculations
6. Fixed fire protection plans
7. Building construction details
8. Primary containment details

D. Flammable/combustible Liquid Storage Outside of Buildings. For those facilities designed for the storage of flammable liquids outside of buildings, the following information shall be provided:

1. Classification of liquid(s).
2. Maximum anticipated volume of liquid.
3. Type and details of primary containment.
4. Type and details of secondary containment.
5. Calculations for secondary containment.
6. Fixed fire protection plans.

E. Bulk Plants. For those facilities with large capacity aboveground storage tank and piping systems, the following information will be provided for each tank system:

1. Type and properties of the material to be stored.
2. Description and design plan of the tank system.
3. Materials of construction (to include corrosion data).
4. Type of corrosion protection to be employed.
5. Piping and instrumentation diagrams with a description of the process flow.
6. Description and plan locations of all vent systems and flame arrestors (to include operating parameters).
7. Description and plans for all secondary containment systems (to include drainage provisions).
8. Description and plans of tank supports.
9. Specifications for normal operating temperatures and pressures associated with the tank system.
10. Delineate all liquid level sensors and gauging equipment (to include operating parameters and detection limits).
11. Monitoring report to describe the location of all sampling ports, wells/probes and the detection methods/limits of the equipment used (to include site geological data used in determining monitoring methodology).
12. Fixed fire protection systems.

F. Storage of Compressed Gases. For those facilities designed for the storage/use of compressed gases, the following information shall be provided:

1. Type of gas(es).
2. Maximum anticipated volume of gas(es).
3. Ventilation calculations.
4. Building construction details (to include cylinder restraints/tank supports).
5. Piping details (to include testing).
6. Fixed fire protection systems.

G. Storage of Toxic Liquids. For those facilities designed for the storage/use of toxic liquids, the following information shall be provided:

1. Name of liquid(s).
2. Maximum anticipated volume.
3. Building construction details.
4. Primary containment details.
5. Secondary containment details and calculations.
6. Ventilation calculations.

H. High Pilad and/or Rack Storage. For those facilities designed for the storage of goods in a high-piled and/or high-rack configuration the following information shall be provided in any instance where storage is greater than 12 feet in height in an area greater than 500 square feet:

1. Complete information substantiating the commodity classification. This shall include the physical composition of the goods and packaging to be stored. This may require the submittal of Material Safety Data Sheets.
2. Information concerning encapsulation
3. Information which explains the material the pallets are constructed from, i.e., wood, metal, plastic
4. Rack design and layout drawn to an appropriate architectural scale
5. Information substantiating the rack design meets RMI Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks
6. Aisle widths

3.2.1.23 Clean Agent Fire Suppression Systems

As a minimum, clean agent fire suppression systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Clean agent fire suppression systems will be reviewed in their entirety prior to system installation.

3.2.1.24 Carbon Dioxide Systems

As a minimum, carbon dioxide systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Carbon dioxide systems will be reviewed in their entirety prior to system installation.

3.2.1.25 Dry/Wet Chemical Systems

As a minimum, wet or dry chemical systems shall be conceptually identified along with the design basis at the time of Building Permit Review. With the exception of commercial cooking protection systems installed in accordance with their listing, dry and wet chemical systems will be reviewed in their entirety prior to system installation.

3.2.1.26 Foam System

As a minimum, foam systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Foam systems will be reviewed in their entirety prior to system installation. When foam sprinklers are to be installed, documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at: http://www.austintexas.gov/department/afd-plans-review

3.2.1.27 Controlled Access/Egress Systems

Controlled access/egress systems shall be identified for the Building Permit Review. Electric Strikes and Electric Locksets installed in accordance with the International Building Code which allow free egress at all times, will generally not require a plan submittal, review or inspection, unless installed in a high rise stairwell. All exit doors must permit egress without the use of a key or any special knowledge, in accordance with the International Building Code (IBC) as amended by the City of Austin ~~(note: IBC Sec. 1008.1.4.4 has been deleted per City of Austin Amendment, the red button exits systems were no longer allowed after May 1994).~~ Doors which utilize Listed crash bars (panic hardware), Listed touch sensor bars or other Listed door mounted hardware to release a magnetic lock by physically breaking the circuit at the door, in a building which is compliance with the Building Code, will be acceptable subject to the requirements detailed below. A fire alarm or automatic sprinkler system will not be required for buildings with access control systems unless otherwise required by the Building or Fire Code. Delayed Egress systems must

be installed per the IBC ~~Section 1008.1.9.6 or 1008.1.9.7~~. API wiring must be in accordance with the National Electrical Code, and any other applicable code.

The installation of magnetic locks or delayed egress systems will require plans approved by, and an inspection/test by ~~the~~ Austin Fire ~~Department~~. Review turn-around time is 5 working days, or reviews may be done by previously scheduled appointment, if reviewer time permits. Plans submittals shall be as follows (Minimum of 2 complete sets must be submitted, one will be kept for AFD file, one will be returned to contractor and must be on site during the inspection):

A. Floor plan showing available egress pathways, the location of the proposed locks, and indicating any fire rated walls.

B. Equipment list and cut sheets for all components involved in locking the doors, with UL Listing shown.

C. For Maglocks, a wiring diagram showing how the power is physically interrupted at the door, independent of the security system software (redundant REX unlocking via security system is allowed).

D. Sequence of operation indicating how door is unlocked. For delayed egress systems, all requirements of IBC ~~Sec. 10083438.6~~ must be addressed in the sequence of operation.

E. Name, address and phone number of the installer.

F. Name and address of the project.

G. City of Austin building permit related tracking number. This can be the plan review tracking number (PR number) or the building permit number (BP number).

Controlled access/egress systems shall be designed and installed in accordance with latest locally adopted editions of the International Fire Code, International Building Code, and any applicable locally adopted amendments and rules.

3.2.1.28 Other Systems

For any systems not covered by the requirements listed in this section, the contractor shall submit sufficient information, calculations, two (2) sets of contractor plans/prints and specifications to properly identify all hazards, equipment and devices used and demonstrate that adequate protection shall be provided. The system shall be designed in accordance with local requirements and nationally recognized standards. The contractor shall contact ~~the City of~~ Austin Fire ~~Department~~ to determine if there are any specific local requirements pertaining to the type of system to be utilized.

## 3.3.0 RESIDENTIAL BUILDING PLANS

### 3.3.1 Submittal Requirements

A. Application for Review

All building permit construction documents shall be submitted to ~~the~~ ~~City of~~ Austin Development Services ~~Department~~. An application is completed, attached to the plans and is subsequently distributed to ~~the~~ Austin Fire ~~Department~~. Revisions and corrections made to the original set of construction documents must be submitted to ~~the City of~~ Austin Development Services ~~Department~~ for review and distribution.

B. Format of Submittals

All building construction documents must be submitted in the format as outlined in the Building Criteria ~~Manual and Appendix E of this Manual~~. ~~Source: Rule No. R161-21.05, 3-22-2021.~~

3.4.0 BUILDING PLAN RULES

A. Rules made by the City of Austin for the Fire Code ~~and WUI Code~~ will be contained within this section. The purpose of this section is to outline the rules issued by the City of Austin pertaining to specific codes, standards and amendments. Such rules are promulgated to administer and implement the Fire Code ~~and WUI Code~~.

B. Rules reference appropriate International Code sections or other adopted standards. Rules are in the same order as the referenced sections. ~~Source: Rule No. R161-21.05, 3-22-2021.~~

CITY OF AUSTIN FIRE PROTECTION RULE BP1

Zoning Requirements in LDC Section 25-2-516 and International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 104.9.

TABLE 104.9
MINIMUM CONSTRUCTION REQUIREMENTS WITHIN 200 FEET OF A HAZARDOUS PIPELINE[1]

The following shall apply to exterior walls within 200 feet of the pipeline.

| DISTANCE TO CENTER OF PIPELINE | <50 FEET | | 50 FEET TO <100 FEET | | 100 FEET TO 200 FEET | | 150 FEET TO 200 FEET |
|---|---|---|---|---|---|---|---|
| EASMENT BARRIER | Wall | No Wall | Wall | No Wall | Wall | No Wall | Requirements may be reduced through a case-by-case review by AFD. |
| CONSTRUCTION TYPE | V-A | II-A | V-B[2] | V-A[2] | V-B | V-B[2] | |
| OPENING PERMITTED | Protected | NP[4] | Note 3 | Note 3 | IBC | IBC | |
| ROOFING MINIMUM | NC[5] | NC[5] | Class A or B | Class A or B | Class A or B | Class A or B | |

1. This rule in no way lessens the provisions of the Building Code (25-12-1) for type of construction, height, area, or opening protection.
2. Exterior surfaces shall be of noncombustible or limited combustible material approved by the Fire Chief (e.g. masonry or HardiBoard ©).
3. Openings less than 100 feet from the center of the pipeline shall be of solid core doors, tinted double pane windows, or double pane low "E" glazing.
4. NP means not permitted.
5. NC means noncombustible.

CITY OF AUSTIN FIRE PROTECTION RULE BP2

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 508

Elevator status/control panel shall be equipped with visual indicators showing the location of each elevator car. Hand/key switches to recall individual elevator cars, bypass floor controls and reset the elevator equipment to normal operation shall be provided.

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 508~~

~~Elevator status/control panel shall be equipped with visual indicators showing the location of each elevator car. Hand/key switches to recall individual elevator cars, bypass floor controls and reset the elevator equipment to normal operation shall be provided.~~

CITY OF AUSTIN FIRE PROTECTION RULE BP3

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 508

A remote control/annunciator, meeting the requirements of NFPA 110, shall be provided in the Fire Command Center. ~~The acronym "RA" in Table 5.6.5.2 of NFPA 110 - 2010, shall indicate that distinct remote audible alarms or visual indication clearly identify the alarm received.~~

CITY OF AUSTIN FIRE PROTECTION RULE BP4

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 508

The telephone required by Building Code (LDC Chapter 25-12, Article 1) Section 911.1.6~~5~~ item 10, for Fire Department use shall be a single party line independent of operator switchboards and in addition to any alarm panel retransmission lines that are present.

SECTION 4 WILDLAND-URBAN INTERFACE

4.1.0 ADMINISTRATIVE

4.1.1 GENERAL

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Section 107.2.1.~~
~~Section 107.2.1 addresses the not permitted category found in the deleted model code table 503.1, Ignition Resistant Construction. This section does not permit for construction on the site unless one of the conditions listed is corrected.~~
~~If an applicant chooses to correct hazard severity then, the applicant may use Appendix C to reduce the hazard severity rating to less than 75 or may implement a vegetation management plan described in Section 502.2. If an applicant proposes to rely on defensible space to reduce hazard severity, then the applicant is also required to comply with Section 603, Defensible Space. If the applicant proposes to implement a vegetation management plan, the applicant is also required to comply with Appendix B.~~

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Section 108.1.~~
~~When the WUI Code applies to a site plan or building permit, the review for compliance with the WUI code will occur concurrently as part of the site plan and/or building permit plan process.~~
~~This means that separate plans or shop drawings will not be required. Review times are determined at the time of the plan or permit submittal.~~

~~CITY OF AUSTIN WUI RULE~~
~~Section 202: Definitions~~
~~A distinct hazard may not be mitigated by simply hardening the structure.~~
~~A structure is a distinct hazard if it: would be required to meet the fire hazard severity conditions set forth in Table 502.1, is considered an extreme hazard as set forth in Appendix C or meets all of the following criteria:~~
~~a. Located in the WUI.~~
~~b. Have non-conforming defensible space.~~
~~c. Have a non-conforming water supply.~~
~~d. Have non-conforming access.~~
~~e. Be built with combustible exterior surfaces.~~
~~Fire Retardant Treated Lumber. A material qualifies as fire retardant treated if the manufacturer treated the material with a fire retardant and the material meets the requirements of the International Building Code Section 2303.2. A material does not qualify as a fire retardant treated lumber if the retardant is sprayed on the material.~~
~~Ignition-Resistant Construction. Ignition-resistant construction typically consists of a structure built with non-combustible exterior surfaces, a Class A* roof material and all exterior openings/vents are protected against ember intrusion.~~
~~*Class A roof material is any roof material considered resistant to fire and includes, but is not limited to, fiberglass shingles, clay tile, concrete and metal.~~
~~Combustible roof materials such as asphalt shingles, wood shingles, wood shakes or any other combustible material will not be allowed in the WUI area. A combustible roof material sprayed with fire retardant is not allowed due to the temporary nature of spray on fire retardants.~~

The intent of the International Wildland-Urban Interface Code (IWUIC), as adopted by the City of Austin with local amendments, can be found in Section 101.3 Purpose of the IWUIC. While the Code outlines defensible space for each Wildland-Urban Interface (WUI) Proximity Zone in Chapter 6, the nature of the constantly changing landscape due to weather patterns, extreme heat, droughts, and freezing temperatures increases the need for reliance on structure hardening. Therefore, the primary focus is increased structure hardening.

This section applies to buildings, structures, and premises located within the Wildland-Urban Interface (WUI) in the full purpose and limited jurisdiction of the City of Austin (COA). Construction shall comply with the Austin City Code, Land Development Code, and adopted technical codes including the International Wildland-Urban Interface Code and local amendments.

When referencing this code on plans and construction documents, the code and local amendments can be referenced together as “WUIC” or “Wildland-Urban Interface Code”.

A. Definition Clarifications.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Chapter 2

1. Terms not defined.

Where terms are not defined in the Wildland-Urban Interface Code (WUIC) or suite of International Codes published by the International Code Council (ICC), the Merriam-Webster's Collegiate Dictionary, 11th Edition or similar, shall be the source for the ordinarily accepted meaning.

2. Clarification of definitions and other terms.

The following section is intended to clarify terms used in the WUIC, City Code, and Fire Protection Criteria Manual. This list serves as a supplement to the original definitions provided in these documents and is not meant to replace them. These clarifications only pertain to the use of the term for application of the WUIC and not other codes or regulations. Additionally, the list is not comprehensive and may not include all terms used within the codes or manual.

(A) HABITABLE. For structures constructed to meet the Building Code, where the WUIC refers to Habitable Space, those requirements shall also apply to Occupiable Space. Refer to the Building Code Section 202 Definitions for the definitions of Habitable Space and Occupiable Space.

(B) NON-COMBUSTIBLE versus IGNITION-RESISTANT material. All non-combustible materials are ignition-resistant; however not all ignition-resistant materials are non-combustible.

1) Non-combustible materials shall meet the definition in WUIC Section 202. Examples include concrete, masonry, cement stucco, gypsum board sheathing, fiber cement board, and metals.

2) Ignition-Resistant materials shall meet the definition in WUIC Section 202 and testing standards outlined in WUIC Section 503. Examples include fire-retardant-treated lumber, heavy timber, and specific products that have been tested per American Society for Testing and Materials (ASTM) or Underwriters Laboratories (UL) as required in WUIC Section 503.

(C) PRIMARY ROAD. A primary road is either a Level 2, 3, 4, or 5 street as outlined in the Transportation Criteria Manual (TCM) 2.4.0.

(D) RAFTER TAIL. Any roof, floor, or wall framing component that extends from the interior of the building envelope to the exterior. This includes, but is not limited to, beams, girders, bracing, joists, and sheathing. The use of the term "rafter tail" is intended to be inclusive and does not exclude other similar structural features that serve this function. Refer to 4.3.2.C.1 and WUIC Sections 504.3, 505.3, 506.4.

(E) SECONDARY ROAD. A secondary road is either a Level 0 or 1 street as outlined in the TCM 2.4.0. A secondary road leads to a primary road.

B. Work Exempt from Wildland-Urban Interface Code Compliance.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 501.1

Work listed as an exception to 501.1 is exempt from the construction requirements of Chapter 5. This exception does not remove the obligation to comply with all other applicable chapters of the Wildland-Urban Interface Code (WUIC).

Work that is exempt from permit under WUIC 105.3 must still comply with all applicable regulations in the WUIC. The permit exemption only removes the requirement for plan review and inspections.

Manufactured Buildings.

1. Structures regulated under the Texas Industrialized Housing and Buildings (IHB) Program or the U.S. Department of Housing and Urban Development (HUD) Manufactured Housing Program are exempt from WUIC Chapter 5 construction requirements when factory-built components fall under those programs' jurisdiction. The structure must display the required certification placard on the exterior of the building, where it can be verified during inspection.

2. All components and features built on-site, including but not limited to the skirting, decks, stairs, fences, accessory structures, and other appendages, must comply with the WUIC.

C. Existing Structures.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 101.4, 102.8, and 502.1.1

Existing structures located within Wildland-Urban Interface (WUI) areas are not required to retroactively comply with the Wildland-Urban Interface Code (WUIC). The WUIC applies only to structures that are constructed, remodeled, or relocated into a WUI area on or after the code's effective date.

If a building permit was issued prior to the implementation of the most recent WUIC update, the project remains subject to the WUIC edition and the WUI Map that were in effect at the time the permit application was submitted. This remains in force until the permit either passes final inspection or expires.

Structures constructed before the City's initial adoption of a WUI code on January 1, 2021, are not subject to WUIC requirements. Any new work, additions, or modifications to those structures must comply with the edition of the WUIC that is in effect on the date the permit application is submitted.

If the work is exempt from permit requirements, the new work or modification must comply with the edition of the WUIC that is in effect at the time the construction occurs. If a fire code official determines that an existing structure or condition presents a distinct danger or extreme hazard to life or property, they may require compliance with specific WUIC provisions to address the hazard. In such cases, alternative methods of compliance or modifications may be allowed to mitigate the risk as outlined in WUIC Chapter 1.

D. Additions, Alterations, Repairs.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 101.5

All new construction, modifications, or alterations to a building must comply with the requirements of the Wildland-Urban Interface Code (WUIC).

Existing portions of a building are not required to meet current WUIC standards unless one or more of the following conditions apply:

1. Alteration or Removal.

   If any part of the existing building is altered or removed, the modified or replaced portion must comply with the WUIC.

2. Relocation to a Wildland-Urban Interface (WUI) Area.

   Relocating a building to a new site requires the structure to meet the WUIC regulations in effect at the time the permit application for placement is submitted.

3. Unsafe Conditions.

   If the work creates an unsafe condition, as determined by the Authority Having Jurisdiction (AHJ), the affected areas must be brought into compliance. Unsafe conditions may include, but are not limited to:
   - Overloading the building's structural system
   - Inadequate access
   - Obstructed exits or access routes
   - Increased fire hazards
   - Reduced fire resistance
   - Any other hazardous situation identified by the AHJ

4. Specific Code Requirements.

In some cases, the WUIC may specifically require additional upgrades. For example, WUIC Section 507 states that if a certain percentage of the roof covering is replaced, the entire roof covering must be brought up to current code standards.

4.1.2 WILDLAND-URBAN INTERFACE MAP ~~– RESERVED~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 302.2

A. Map Updates.

1. Annual Updates.

The Wildland-Urban Interface (WUI) Map will be evaluated and updated annually to reflect new development completed in the previous 12 months within the boundaries of the WUI areas shown on Ordinance No. 20250410-041 Exhibit A. This includes adjusting the boundaries of Proximity Zones to account for changes in developed land, annexations and disannexations, and wildland areas.

2. Code Cycle Review.

The mapping methodology is reviewed during each technical code adoption cycle, which occurs approximately once every three years.

B. Mapping Methodology.

1. What the Method Covers.

The method defines how the map is drawn, including:

(A) How wildland areas are identified and measured

(B) How large a wildland area must be to trigger Wildland-Urban Interface Code (WUIC) compliance

(C) Proximity Zones: how far WUIC requirements extend into nearby development

(D) What counts as a break in wildland continuity

2. Using Wildland-Urban Interface (WUI) Vicinity Plans.

WUI Vicinity Plans may be used during annual map updates to confirm where wildland has been removed, reduced, expanded, or separated by new development. See 4.2.0.E WUI Vicinity Plan for plan requirements.

3. Identifying Wildland.

(A) Definition. “Wildland” is defined in WUIC Section 202.

(B) Regularly Maintained Areas.

These guidelines summarize the key considerations used to evaluate whether vegetation is regularly maintained for wildfire safety. The guidance provided reflects current research and wildfire protection standards. They provide general direction rather than fixed requirements and support site-specific assessments when determining Proximity Zones. Austin Fire may be contacted for project specific guidance.

Areas are not wildland if they receive frequent care, applicable to the vegetation, such as but not limited to irrigation, mowing grass to approximately 4 inches or less (not exceeding 6 inches during periods of fast growth), removing tree limbs less than 4 inches in diameter that are located less than 6 feet above the ground, and removing ladder fuels below trees.

Defensible Space per WUIC Section 603 and maintained per WUIC Section 604 is also considered regularly maintained.

(C) How Boundaries Are Drawn. Wildland boundaries are identified using aerial photos and wildfire risk maps as needed.

1) Forested areas: boundary at the tree line

2) Grass or open vegetated areas: boundary where regular maintenance stops

(D) Future Development. Future development may be considered when site work has begun or when a Site Plan or Subdivision Preliminary Plan has been approved and development has started.

(E) Property Lines and Small Features. Wildland does not stop at property lines. Sidewalks, driveways, and roads less than 150 feet wide do not break continuity.

4. Wildland Continuity

(A) What Breaks Continuity. Wildland is continuous unless separated by 150 feet or more with features such as pavement, small areas of regularly maintained vegetation such as planted parking lot islands or roadway medians, and any other ignition-resistant or noncombustible feature.

(B) Roadways. A 150 foot right-of-way (ROW) counts as a break in continuity when the portion currently built or under active development includes at least 4 lanes, or an equivalent paved width based on the level of street design. Refer to the Transportation Criteria Manual (TCM) for street and right-of-way cross section examples.

(C) Examples. Breaks in continuity include large parking lots or wide, fully built roadways. Narrow streets, sidewalks, easements, property lines, and shaded fuel breaks do not break continuity.

5. Measuring Wildland Size (40+ acres and 750+ acres)

(A) How wildland is measured. Wildland size is determined by outlining the continuous wildland area and calculating total acreage. Aerial imagery, Geographic Information System (GIS) wildfire layers, and site verification may be used to confirm boundaries.

(B) Thresholds for Wildland Size. Certain WUIC requirements apply only when wildland areas meet or exceed defined acreage thresholds:

1) Certain WUIC requirements apply only when wildland areas meet or exceed defined acreage thresholds:
• 40 acres or greater
• 750 acres or greater

2) The minimum areas of wildland were established via Ordinance No. 20200409-040, Exhibit A “Information Supporting Adoption of the Wildland-Urban Interface Code”.

3) These acreage thresholds do not ensure that smaller wildland areas will not contribute to fire spread, ember cast, or property loss; they simply define the points at which specific WUIC provisions are applied.

6. Proximity Zones

Structures located near wildland areas may be exposed to direct flame contact, radiant heat, and ember cast. Because embers are a leading cause of WUI home ignition, protection requirements apply within all Proximity Zones. As the distance of a structure from the wildland increases, exposure to direct flame decreases, but ember exposure may remain significant.

(A) Zone A. The most restrictive zone, located within 50 feet of wildland areas 40 acres or larger. Structures in Zone A have increased exposure to direct flame, radiant heat, and high-intensity ember cast.

(B) Zone B. A restrictive zone located within 150 feet of wildland areas 40 acres or larger. Structures are more likely to be exposed to radiant heat from nearby burning vegetation or structures in addition to ember cast.

(C) Zone C. The least restrictive zone, defined based on the potential for embers to travel long distances. While embers may travel miles, average ember travel is approximately 1.5 miles.

1) The Zone C boundary is set at 0.5 miles from wildland areas 40 acres or larger.

2) The boundary extends up to 1.5 miles from wildland areas 750 acres or larger due to the greater ember production associated with larger fires.

3) These distances do not ensure that areas beyond the zone will be free from ember ignition or property loss; they represent the zones where mitigation requirements are most effective and appropriate.

C. Using the Wildland-Urban Interface (WUI) Map.

1. Map Limitations.

The map may not accurately represent all areas within the Wildland-Urban Interface (WUI) due to the complexity of these regions and limitations in mapping technology. Therefore, final determination of whether a property falls within the WUI and its designated Proximity Zone will be made by the fire code official.

2. Measuring Distance to Wildland.

When calculating the distance to wildland, the measurement is taken from the structure itself to the actual boundary of the wildland, rather than from the property line. It is important to verify the location of the wildland for a project by checking actual conditions on site to ensure accuracy.

3. Proximity Zones.

For an accurate zone determination of the Proximity Zone for a structure, measure the distance from the structure to the wildland using the map tools, and confirm by checking the actual site conditions.

(A) Interpreting Proximity Zones in Areas with New or Complex Development

In locations where Proximity Zones on the map may be unclear due to new development or site-specific conditions, the following features may be used to help establish the appropriate starting point for the wildland measurement. Coordination with a reviewer may be necessary for final adjustments.

1) The wildland measurement shall begin at the boundary between regularly maintained vegetation and vegetation that is not regularly maintained. Refer to Figure 4.1.2.C.3 – 1.

2) The wildland measurement may begin at fence lines where the interior of the site is landscaped and regularly maintained (such as within an apartment complex, new single-family development, or similar project).

3) The measurement may begin at the outer edge of parking pavement or road curbs.

4) Drainage ponds required to be regularly maintained may be excluded from wildland areas. Where this applies, the starting point for the wildland edge will be the outside edge of the top of the pond embankment (i.e. the high bank of the pond). Refer to Figure 4.1.2.C.3 – 2.

5) Where a continuous Critical Water Quality Zone (CWQZ) or other environmental buffer exists between the structure and the wildland, the closest boundary of that buffer may be used as the offset line for establishing the Proximity Zone within the site.

6) Plans for proposed development may identify the line where regular vegetation maintenance will end; this line may be used to establish the wildland measurement starting point.

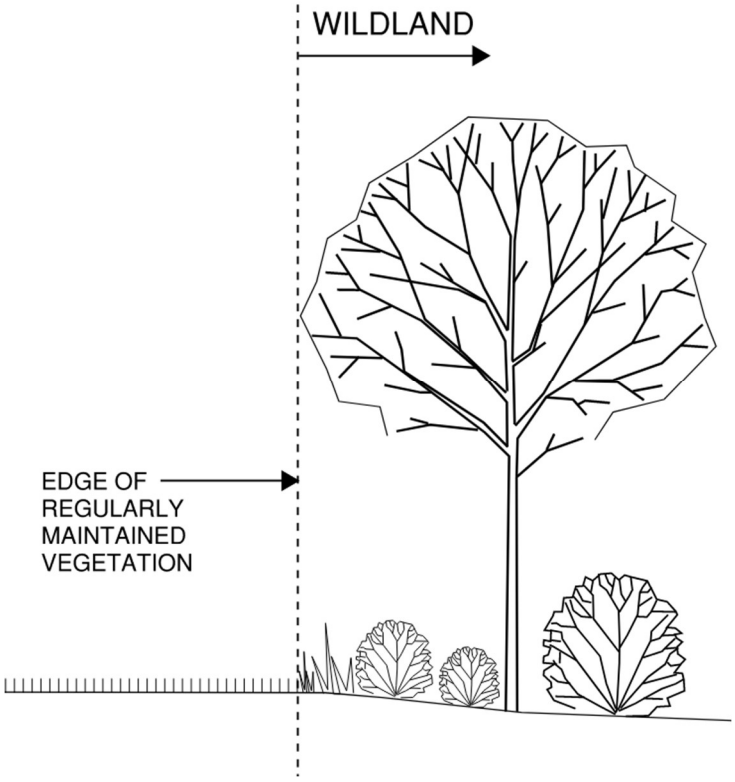



Figure 4.1.2.C.3 – 1 – Wildland Boundary

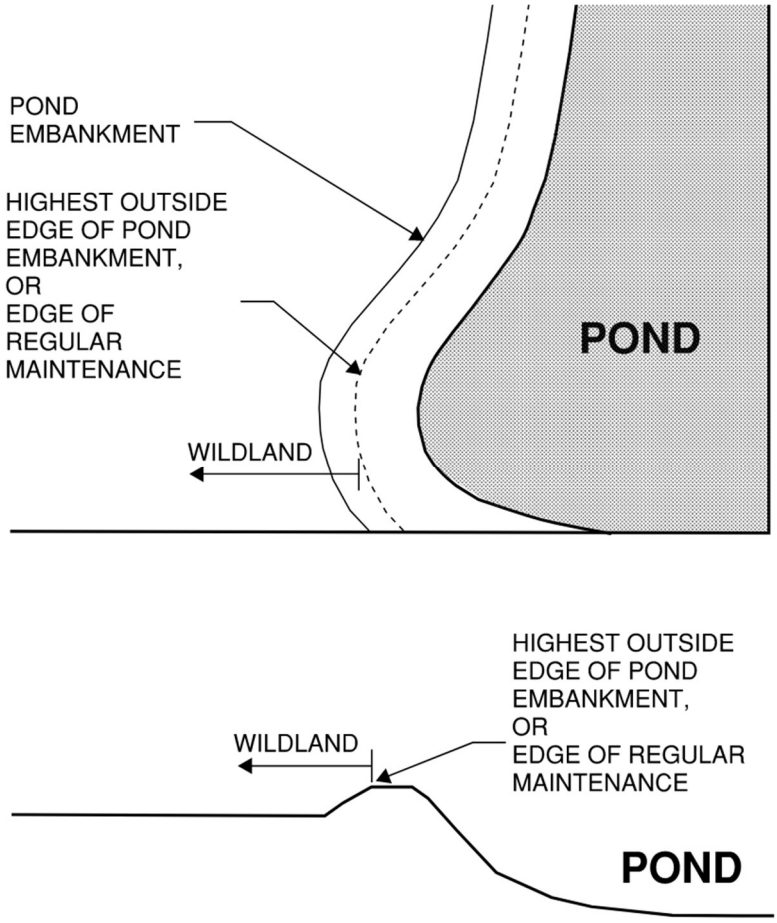



Figure 4.1.2.C.3 – 2 – Drainage Pond Measurement Example

4.2.0 SUBMITTAL REQUIREMENTS

Wildland-Urban Interface Code (LDC 25-12, Article 8) specific sections and subsections referenced under each subheading accordingly.

~~A. Application for Review. All building permit construction documents shall be submitted to the City of Austin Development Services Department. An application is completed, attached to the plans and is subsequently distributed to the Austin Fire Department. Revisions and corrections made to the original set of construction documents must be submitted to the City of Austin Development Services Department for review and distribution.~~

~~B. Format of Submittals. All building construction documents must be submitted in the format as outlined in the Building Criteria Manual and Appendix E of this Manual. Source: Rule No. R161-21.05, 3-22-2021.~~

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Sections 402.1.2, 402.2.2 & International Fire Code, Reference Sections 507.3, Appendix B105.1 & B105.2,~~
~~A conforming water supply that is capable of supplying sufficient fire flow per the IFC Appendix B105 for the most demanding structure shall be provided for subdivisions and individual structures. This includes both commercial and residential structures. The fire flow shall be confirmed by providing a fire flow test. At the time the application is submitted, all fire flow tests must be 1 year old or less, be within a 2 to 3 block radius of the structure, and be on the same water system/zone. Third party fire flow tests are not acceptable. All fire flow tests must be performed by AFD. Except for certain residential building permit applications, a fire flow test shall be included with all site plans, site plan corrections, site plan development exemptions, and all building permit submittals for sites and structures located within the WUI area. All residential building permit applications shall include a fire flow test when the structure is build, remodeled or moved into a~~

~~WUI area. Residential building permits applications do not need to include a fire flow test if the site where the residential structure will be located is already covered by a fire flow test that covered a group of sites.~~

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Section 405 Fire Protection Plan.~~
~~A separate fire protection plan may be required when a structure is built, remodeled or moved into the WUI. At a minimum, site plan exemptions (commercial or residential), residential remodels, or structures being moved onto an existing lot in the WUI area that do not already have a site plan will be required to provide a fire protection plan with the submittal of the application. When required, the fire protection plan must include all the requirements of Section 405 and shall be provided, signed and sealed by a Texas licensed, architect, engineer or other professional as deemed acceptable to the code official.~~

A. Work Exempt from Permits.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 105.3

Work described in Wildland-Urban Interface Code (WUIC) Section 105.3 Work Exempt from Permit must still comply with WUIC regulations. The permit exemption only removes the requirement for plan review and inspections. If the work is part of a larger project that does require a permit, the permit application and supporting documents must demonstrate compliance with WUIC regulations.

For information on work that is exempt from compliance with WUIC Chapter 5, refer to Section 4.1.1.B and WUIC Section 501.1.

Additional permit exemptions may exist under each building technical code adopted by the City of Austin. These exemptions are detailed in the local amendments found in Chapter 25-12 of the City Code. In the event of any discrepancies between these resources, the provisions in Chapter 25-12 take precedence.

B. General Requirements.

1. Full development application submittal requirements shall be made available by Austin Fire on the website.

2. New Construction.

   Permit and development applications shall include submittal documents and information for all proposed work on site.

3. Additions and Alterations.

   Submittal requirements for additions to an existing structure shall be the same as for new construction.

4. Interior Remodels (i.e. Interior Alterations).

   The Wildland-Urban Interface Code (WUIC) does not apply to the interior of a structure, except for modifications that extend to the exterior, such as changes to exterior facing materials and ventilation openings.

5. Revisions During Construction.

   (A) Revisions made during construction that vary from the approved record set shall be submitted through Development Services or the applicable permit revision process in effect at the time.

   (B) Materials may not be changed in the field, unless they are changed to a similar material on the current Wildland-Urban Interface (WUI) Approved Materials List found on the Austin Fire website, and where the material was not specifically required within an approved Alternative Method of Compliance or Modification (AMOC). Any other material change shall be submitted as a plan update via the revision process, unless WUI Plan Review staff confirm that the material has been approved, documented, and does not require a formal revision.

C. Construction Documents.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 105 and 106

1. Full development application submittal requirements shall be made available on the Austin Fire website.

2. Detailed drawings shall demonstrate compliance without a reliance on copying code language directly onto plans, unless otherwise accompanied by project-specific details.

3. Construction document plan sets shall include the following at minimum:

   (A) Code name and edition year (e.g. 2024 Wildland Urban Interface Code, or 2024 International Wildland-Urban Interface Code with City of Austin local amendments)

   (B) The Proximity Zone designation for the structure(s) based on the proximity of the structure to wildland.

   (C) Architectural Site Plan or Plot Plan based on the requirements specific to the application type.

   (D) Wildland-Urban Interface (WUI) Drawing Details and Notes, such as floor plans, roof plan, exterior elevations, and drawing details demonstrating compliance with requirements specific to the project scope.

   (E) Specific material information including manufacturer name, product name, and fire-test data shall be provided unless supplemental documentation by Austin Fire indicates general or generic information and notes may be presented.

4. Additional items may be required per submittal requirements available online:

   (A) Hydrant flow test report, or other accepted verification, demonstrating that an adequate water supply is available for the project. See 4.2.0.D Hydrant Flow Test.

   (B) Supplemental documents such as product fire test data demonstrating compliance with required testing, for materials not already on the WUI Approved Materials List.

   (C) Where an Automatic Fire Sprinkler System is required or provided, adequate notation as required by Austin Fire shall be provided for the application type.

   (D) WUI Vicinity Plan for sites that include multiple buildings and multiple Proximity Zones. See 4.2.0.E Vicinity Plan.

   (E) Landscape Plans.

5. Alternative Methods of Compliance and Modifications (AMOC). Any approved AMOC request forms shall be affixed to a plan sheet within the drawing set.

D. Hydrant Flow Test.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 402.1.2, 402.2, 404; International Fire Code (LDC 25-12, Article 7) reference Sections 507 and Appendix B.

Refer to 1.3.0 to determine when a fire flow test is required.

E. Wildland-Urban Interface (WUI) Vicinity Plan.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 106.7

1. Where Required

   A WUI Vicinity Plan shall be included for sites with multiple buildings and Proximity Zones. The plan may be a separate drawing sheet within a plan set or combined within another drawing sheet within a plan set. The Vicinity Plan shall not be an exhibit separate from the drawing plan set as it must be contained within the permit record set.

   The primary purpose is to clearly depict:

   (A) the location of all structures on the site,

   (B) the location of the nearest wildland, and

   (C) the Proximity Zone of each structure.

   Refer to 4.1.2 Wildland-Urban Interface Map for guidance on using the online map, including how to measure and identify the wildland.

2. Drawing Depiction of Proximity Zone.

Each structure must be assigned a Proximity Zone on the Vicinity Plan through one or more of the following methods:

(A) Label each structure with the Proximity Zone it is located in. See Figure 4.2.0.E.2 – 1.

(B) Use a hatch pattern to identify the Proximity Zone based on a legend. See Figure 4.2.0.E.2 – 2.

(C) Color code the structures, or color code the entire zone, to identify the Proximity Zone based on a legend. When picking colors, consider legibility when printed in black and white or greyscale and add labels for each building as needed. See Figure 4.2.0.E.2 – 3.

(D) Provide a table listing the Proximity Zone of each structure, ensuring each structure is identified by a building number or separate address. See Figure 4.2.0.E.2 – 4.

(E) Other methods that clearly distinguish which Proximity Zone a structure is located in.

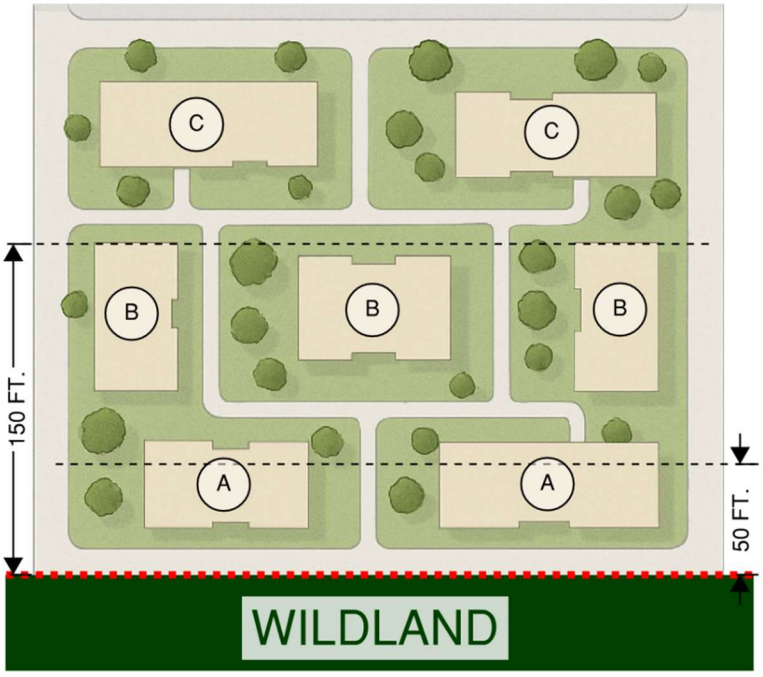



Figure 4.2.0.E.2 – 1 - WUI Vicinity Plan: Structures Labeled With Proximity Zone

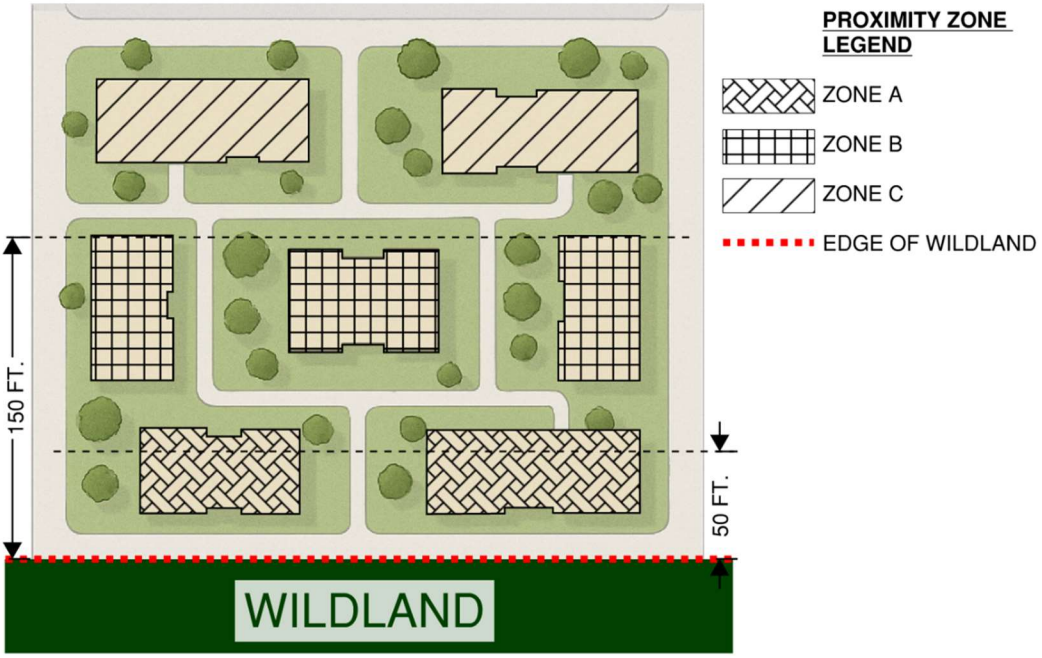



Figure 4.2.0.E.2 – 2 - WUI Vicinity Plan: Proximity Zone Hatch Pattern per Structure

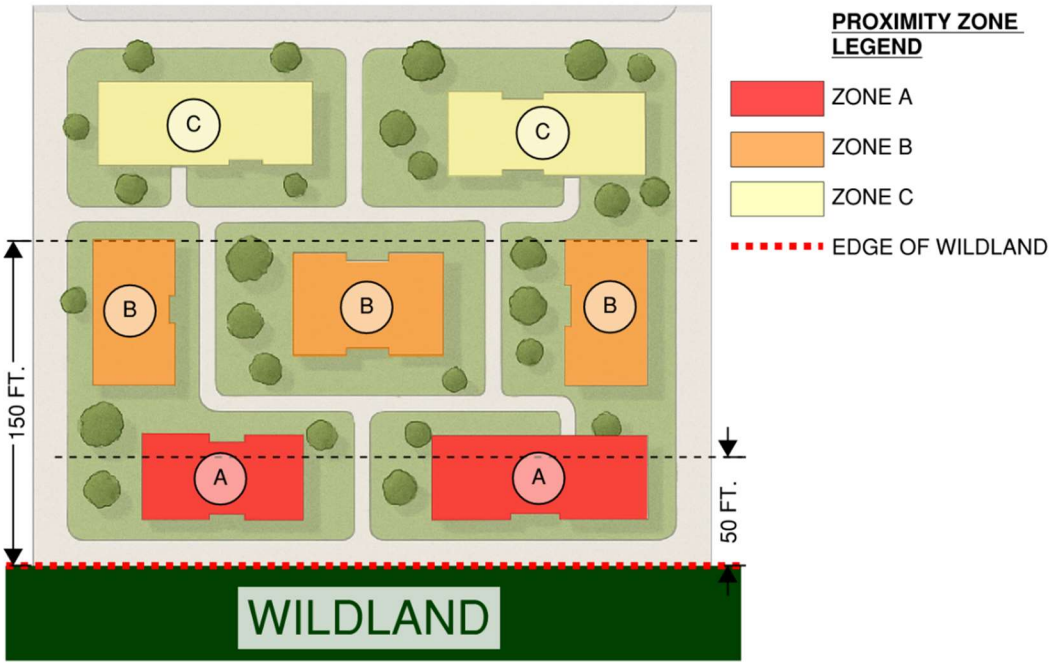
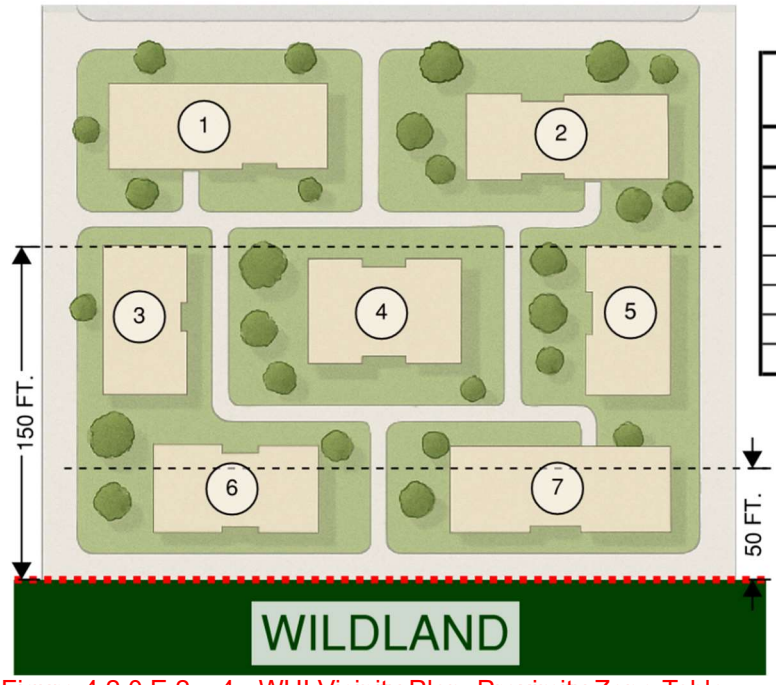



Figure 4.2.0.E.2 – 3 - WUI Vicinity Plan: Proximity Zone Color Coding per Structure




| WUI PROXIMITY ZONE LEGEND | |
|---|---|
| Building | Proximity Zone |
| 1 | C |
| 2 | C |
| 3 | B |
| 4 | B |
| 5 | B |
| 6 | A |
| 7 | A |

Figure 4.2.0.E.2 – 4 - WUI Vicinity Plan: Proximity Zone Table

4.3.0 ~~RULES~~CONSTRUCTION AND DEVELOPMENT REQUIREMENTS

~~A. Application for Review. All building permit construction documents shall be submitted to the City of Austin Development Services Department. An application is completed, attached to the plans and is subsequently distributed to the Austin Fire Department. Revisions and corrections made to the original set of construction documents must be submitted to the City of Austin Development Services Department for review and distribution.~~

~~B. Format of Submittals. All building construction documents must be submitted in the format as outlined in the Building Criteria Manual and Appendix E of this Manual. Source: Rule No. R161-21.05, 3-22-2021.~~

4.3.1 ~~EXTREME HAZARD AND FIRE SEVERITY~~ACCESS AND WATER SUPPLY

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Chapter 4

A. Subdivision Access.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 402.1.1.

1. Access required by the Wildland-Urban Interface Code (WUIC) supports fire protection by providing access for emergency vehicles and aiding in wildfire evacuation.

2. A new subdivision or resubdivision (either the joining or separating of lots) development shall provide a minimum of two access streets as defined in § 25-4-157 (*Subdivision Access Streets*) when any of the following conditions apply:

   (A) The development is a Limited Access Residential Infill Project or is located in a Limited Access Community;

   (B) The development proposes more than 30 dwelling units;

   (C) At the time of application the applicable zoning of the property allows for more than 30 dwelling units, even if fewer units are currently planned (example: 11 residential use lots where up to 33 homes may be constructed); or

   (D) The development is located within an existing or larger development that contains 30 or more dwelling units.

3. Phased Development. Where a second point of access is planned for a subsequent phase, a concept plan may be submitted with a subdivision application. The concept plan shall illustrate planned development and access for the current application and for adjoining future development.

4. For determining whether an area qualifies as a Limited Access Community, see 4.3.4.C.

5. Individual lots within a subdivision shall also comply with WUICSection 402.2.1 for individual lot access.

6. Where difficulty arises in providing the required secondary access due to existing site limitations, refer to 4.3.4 Hazard Mitigation: Extreme Hazard, Limited Access, and Site Specific Hardship.

B. Individual Lot Access

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 402.2.1

1. Access required by the Wildland-Urban Interface Code (WUIC) supports fire protection by providing access for emergency vehicles and aiding in wildfire evacuation.

2. Fire apparatus access roads (e.g. public roadway, fire lane) shall be provided in accordance with Chapter 5 of the Fire Code and driveways shall be required in accordance with Wildland-Urban Interface Code (WUIC) Section 403.2 and Section 4.3.1.C.

   (A) Where the Fire Code does not require a fire apparatus access road, or where mitigation is provided instead, a driveway in accordance with WUIC Section 403.2 is still required. Mitigation for a driveway shall be considered separately from mitigation for a fire apparatus access road.

   (B) Fire apparatus access shall be designed in accordance with the Fire Code and associated rules to support the largest and heaviest apparatus in Austin Fire's fleet.

   (C) Driveways shall be designed in accordance with the WUIC and as outlined in 4.3.1.C.4 to support a Type 6 Wildfire Brush Truck.

3. Multi-Family Residential Projects

   (A) These projects shall provide a minimum of two fire apparatus access roads per the Fire Code when any of the following conditions apply:

      1) The development is a Limited Access Residential Infill Project or is located in a Limited Access Community (refer to 4.3.4.C for more information on determining if an area qualifies as a Limited Access Community),

      2) The development proposes more than 30 dwelling units, or

      3) The development is located within an existing or larger development that contains 30 or more dwelling units.

4. Residential Projects

   For more information on determining if an area qualifies as a Limited Access Community, refer to 4.3.4.C.

5. Where difficulty arises in providing the required secondary access due to existing site limitations, refer to 4.3.4 Hazard Mitigation: Extreme Hazard, Limited Access, and Site Specific Hardship.

C. Driveways.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 403

Driveways required by the Wildland-Urban Interface Code (WUIC) support fire protection by aiding in evacuation, providing access for emergency vehicles such as Austin Fire brush trucks and Emergency Medical Services (EMS), and facilitating wildfire notifications.

Structures built under the Building Code, and not the Residential Code, shall comply with fire apparatus access requirements of the Fire Code and are not required to provide a driveway per WUIC Section 403.2.

While WUIC required driveways are not a substitute for required fire apparatus access roads, a fire apparatus access road that meets or exceeds the requirements in WUIC Section 403.2 may serve as the required driveway.

1. Applicability.

   The WUIC driveway requirements only apply to residential structures constructed to meet the Residential Code, including:

   (A) Dwelling units

   (B) Accessory structures enclosed by a roof and exterior walls.

      1) Examples: detached garages, studios, pool houses, conditioned sheds, and similar enclosed occupiable structures.

   (C) Exemptions:

      1) Any structure exempt from WUIC Chapter 5 per Section 501.1.
      2) Unenclosed structures such as playground equipment, pergolas, carports, pavilions, pools, and similar unenclosed structures.
      3) Enclosed unconditioned non-occupiable structures that do not require a permit such as a small shed.
      4) Other similar work as determined by the fire code official.

2. Service Limitations, WUIC Section 403.2.3.

   A single WUIC required driveway may serve multiple structures, provided the following service limitations are not exceeded:

   (A) A WUIC driveway shall not serve more than:

      1) three buildings or structures on an individual lot,
      2) three dwelling units on an individual lot, or
      3) four dwelling units total across multiple lots when serving Flag Lots (refer to § 25-4-177) or when designated as a Joint Use Driveway (refer to § 25-6-417, § 25-6-451, Transportation Criteria Manual 7.6.4).

   (B) Buildings or structures located within 150 feet of a fire apparatus access road, or within 200 feet in Zone C, are excluded from the total count of buildings, structures, or dwelling units served by a WUIC required driveway.

   (C) Multiple WUIC required driveways are allowed on a single property or across several properties, as long as permitted by other sections of the City Code. Each WUIC required driveway must have a separate curb cut to ensure distinct entry and exit routes. Additional curb-cut and driveway-spacing requirements are established in other sections of City Code and may require coordination with the relevant City departments.

3. Measurement.

   (A) Hose lay.

   Hose lay distance represents the path a fire hose would follow on the ground during firefighting operations. Where a driveway or fire lane is added per WUIC Section 403.2, it shall provide access to the structure measured as hose lay. The distance between the structure and the access roadway or driveway is based on a 150-foot hose line that allows for a quick attack of a fire. That distance may be extended to 200 feet within Proximity Zone C or when part of an alternative method or modification approved by the fire code official. See 901S-1 in the City of Austin Standards Manual for measurement criteria.

   A gate may be added to allow fire apparatus access through a fence or wall. Restricted access, such as a locked gate, shall be provided with a Knox key switch or Knox box per WUIC Section 403.1.

   (B) Width.

   The required minimum unobstructed width of 12 feet (3658 mm) shall be measured from face of curb (FOC) to FOC where there is a gutter or where the curb is higher than the driveway surface. Where the curb is flush with the

driveway surface or there is no curb, the measurement can be taken to the outside edge of the curb or curb-less pavement.

(C) Height.

The required minimum unobstructed height of 14 feet (4268 mm) shall be measured from the highest point of the paved driveway surface to the nearest overhead obstruction. Tree limbs and other vegetation shall be pruned to remain outside of the required clearance and follow any requirements outlined in the Environmental Criteria Manual (ECM) or as otherwise required within City Code.

4. Dimensions and Requirements.

Only the portion of the driveway(s), turnaround(s), and turnout(s) required by the WUIC shall meet the following requirements. Additional driveway length beyond the minimum requirement and elective driveways are not required to comply with the section.

(A) Surface shall be continuous all-weather road material such as concrete or asphalt pavement. Stamped concrete is an acceptable finish treatment. Alternative pavements shall be allowed when in compliance with Fire Code Section 503.2.3.1 Alternative Surfaces.

(B) Shall be designed to support 19,500 pounds (lbs), to accommodate a Type 6 Brush Truck Gross Vehicle Weight Rating (GVWR).

(C) Slope shall not exceed 13% for asphalt and 15% for concrete.

(D) Width per WUIC Section 403.2.1, at least 12 feet maintained.

(E) Height per WUIC Section 403.2.1, vertical clearance at least 14 feet maintained.

(F) Radius for curved driveways shall be not less than 25 feet for inside turning radius and outside turning radius shall be no less than 25 feet plus the width of the driveway.

(G) Turnarounds are required per WUIC Sections 403.2.2 and 403.2.4 where a driveway exceeds 150 feet in length, or 200 feet in length within Proximity Zone C. Turnarounds shall also comply with the following:

1) Inside turning radii of not less than 25 feet.

2) Outside turning radii of not less than 25 feet plus the width of the driveway.

3) “Access Roadway Turnaround” drawing detail 901S-2 from the City of Austin Standards Manual, Series 900 – Fire Safety. The driveway width may be reduced from 25 feet to the width of the provided driveway, but not less than.

4) Where the driveway is designed as a fire apparatus access road per the Fire Code, the width shall be 25’ minimum unless otherwise exempted.

(H) Turnouts are required per WUIC Sections 403.2.2 and 403.2.5 where a driveway exceeds 200 feet in length, or 250 feet in length in Proximity Zone C, and is less than 20 feet in width to allow vehicles traversing in opposite directions to pass. Driveway turnouts shall also comply with the following:

1) Not less than 10 feet (3048 mm) wide and 30 feet (9144 mm) long.

2) Additional turnouts are required for driveways exceeding 400 feet in length. Spacing between turnouts shall be site specific with consideration of existing trees and structures as well as other conditions on the site.

3) Flares at each end shall be provided as shown in Figure 4.3.1.C.4 – 1.

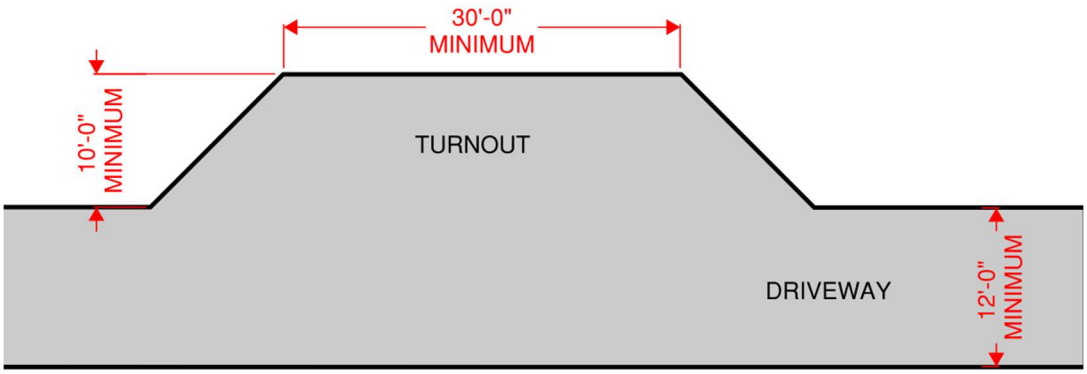



Figure 4.3.1.C.4 – 1 Turnout

5. Driveway Alternatives.

(A) The fire code official may approve the use of alternative materials, designs, methods, or modifications in place of the written code, as permitted under WUIC Section 104 and Fire Code Section 503. These alternatives must meet the intent of the code and provide an equivalent level of safety.

(B) Options outlined in 4.3.4.D Hazard Mitigation: Extreme Hazard, Limited Access and Site Specific Hardship may be considered for properties where there are practical difficulties in meeting the written code.

D. Water Supply.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 402.2.2, 402.1.2, and 404

1. Adequate fire protection water supply shall be in accordance with the Fire Code including Chapter 5 and Appendix B. All properties shall demonstrate adequate water supply is available as part of the development application process as outlined under 4.2.0 - Submittal Documents.

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Section 402.1.2 & Section 404 Water Supply.~~

2. A conforming water supply means water supplied by a public or private utility system. Lakes, ponds, tanks, stored water or other natural sources of water such as streams/rivers will not be considered as a conforming water supply.

3. Options outlined in 4.3.4.D Hazard Mitigation: Extreme Hazard, Limited Access and Site Specific Hardship may be considered for properties where there are practical difficulties in meeting the written code.

~~CITY OF AUSTIN WUI RULE~~
~~International WUI Code, Reference Section 403.2.1 & IFC Section 503.2.1 as amended.~~
~~Dimensions: The minimum unobstructed height of the driveway shall be in accordance with the International Fire Code Section 503.2.1. The vertical clearance must be at least 14 feet, be as wide as the driveway and be maintained for the full length of the driveway.~~

4.3.2 ~~ACCESS AND WATER SUPPLY~~ IGNITION-RESISTANT MATERIAL

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 501.3, 503, 504, 505, 506

~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Sections 504.1 thru 504.11 Ignition Resistant Construction.~~
~~This section does not mandate any specific material that must be used on a structure when building, remodeling or relocating in the WUI area. The purpose of providing examples of acceptable materials is to better clarify what~~

~~type of materials can be used to achieve ignition resistant construction. The materials described in this section have been proven over years of testing and experience to provide the type and amount of fire resistance needed to achieve the goal of Ignition Resistant Construction. This section allows an applicant to use these materials and any "Approved Noncombustible Material".~~

~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Section 504.7 Appendages and Structures.~~
~~A deck that is located within ten (10) feet of or connected to a structure in the WUI area must be constructed of an approved non-combustible material. A fence that is connected to the structure must have the first ten (10) feet built from a non-combustible material and the remainder of the fence can be built using any material acceptable to the model building codes. A deck or fence located more than ten (10) feet away from a structure may be constructed from any building material approved for use by the current building codes.~~

~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Section 504.11 Detached Accessory Structures.~~
~~Detached accessory structures are structures such as storage buildings, greenhouses, sheds, pool bathrooms and similar structures. These structures must meet the requirements of Section 504.11. Detached structures that are intended for use as a dwelling unit such as guest homes, apartments or other similar uses are not considered, for purposes of the WUI Code, an accessory structure and must meet the same standards as all other structures in the WUI area.~~

~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Sections 507.1, 504.2, 504.10 Roof Replacement or Repair.~~
~~Any roof repair consisting of replacing 25% or more of the roof or a total roof replacement must be replaced using a Class A rated roofing material and installed in accordance with Sections 504.2, 504.2.1 & 504.10.~~

A. General.

1. To be classified as ignition-resistant material under the Wildland-Urban Interface Code (WUIC) with City of Austin amendments, the material must meet the testing requirements outlined in WUIC Section 503.2.

2. Fire-resistance-rated assemblies. A fire-resistance-rated assembly is a full system of materials that are tested together to show how long they can resist fire. This section explains assemblies only and does not cover individual materials that have their own fire-resistant properties.

   (A) Required testing. Fire-rated assemblies, such as 1-hour walls or roofs, must be tested from the exterior side of the assembly. The exterior face must include an ignition-resistant surface material.

   (B) Verifiable components. All layers in a fire-rated assembly must be clearly identified and supported by information from the manufacturer and the testing agency.

   (C) Required test methods are outlined in the WUIC.

3. Fire-retardant treatments shall be an integral and permanent part of the material, lasting for the entire usable life of the product without requiring reapplication. Paints, coatings, stains or other surface treatments are not an approved method of protection. This includes, but is not limited to, surface applied fire-retardants, weatherization topcoats, and intumescent paint. Fire-retardant treatments applied to wood must comply with WUIC Section 503.2.2, which references the requirements of Section 2303.2 of the Building Code.

4. Heavy Timber.

   (A) Heavy timber requirements are defined in Building Code Section 2304.11.

   (b) Heavy timber is solid sawn or engineered lumber. Hollow or built-up columns do not qualify as heavy timber.

(C) When minimum dimensions are not specified for nonstructural heavy timber elements, such as ornamental brackets, a minimum of 4 x 6 nominal solid lumber shall be used. Engineered lumber of equivalent size may also be used. Building Code Table 2304.11 Section “Roof loads only / Framed timber trusses and …” may be used as a reference to help determine an equivalent engineered lumber section, even if the element is not roof-related.

(D) Heavy timber roof decks exposed to the exterior shall comply with the material requirements in the applicable WUIC code section (e.g. Appendages and Structures, Ceilings, Eaves).

5. Documentation requirements. Refer to Sections 4.2.0 Submittal Requirements and 7.2.12 WUI Code Inspection Criteria for required documentation.

B. Roofs.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.2, 505.2, 506.2, 507

In clarification to requirements outlined in Wildland-Urban Interface Code (WUIC) Chapter 5:

1. Skylights. An acceptable alternative is a skylight with a Class A fire resistance rating per ASTM E 108.

2. Roof repairs. When roof work meets the threshold for full replacement, the requirements of WUIC Section 507.1 apply. Repairs that remain below the threshold for full replacement may use materials that complied with the code in effect at the time of the original installation.

C. Eaves/Soffit/Fascia and Exterior Ceilings.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.3, 505.3, 506.4

In clarification to requirements outlined in Wildland-Urban Interface Code (WUIC) Chapter 5:

1. Rafter Tails.

(A) Refer to 4.1.1.A.2 for clarification of the term.

(B) For Proximity Zone A (WUIC Section 504.3.4) and Proximity Zone B (WUIC Section 505.3.4), see Figure 4.3.2.C.1-1:

1) The exterior wall rating shall be 1-hour from the interior and exterior.

2) Eaves may be any depth. If the eave is 48 inches or less, the entire roof deck above the eave must be noncombustible or American Society for Testing and Materials (ASTM) E84 Class A rated per WUIC Section 503.2. If the eave is deeper than 48 inches, only the portion of the roof deck within 48 inches of the exterior wall must meet this requirement.

3) If the roof deck is an exposed soffit or ceiling, this section takes precedence for the 48 inch zone.

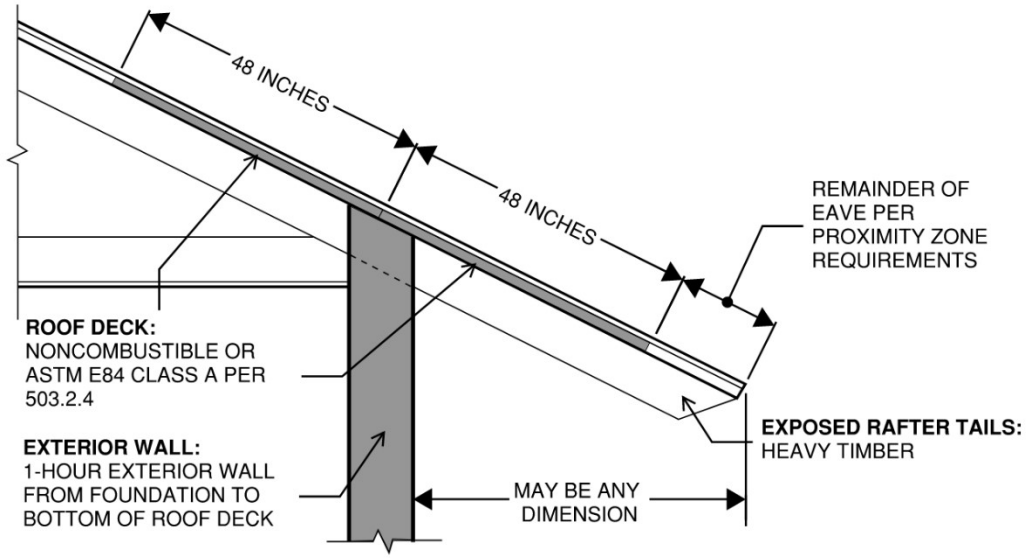
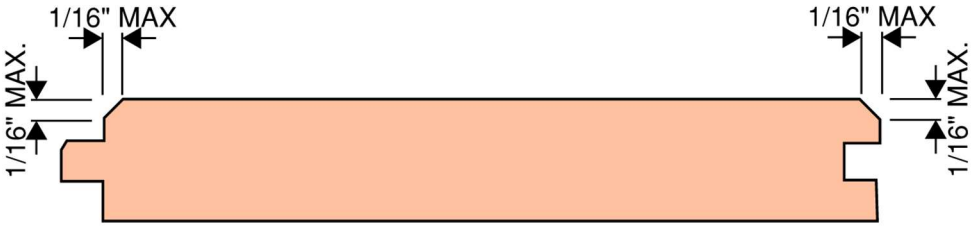



Figure 4.3.2.C.1-1 Proximity Zone A and B Exposed Rafter Tail

2. Tongue & Groove Materials. Where material is required to meet a minimum thickness to comply, the joints shall be flush without reducing the required depth of the material. Joint edges may be beveled or eased a maximum of 1/16". See Figure 4.3.2.C.2 – 1.

Figure 4.3.2.C.2 – 1 – Tongue & Groove Materials




3. Soffits. Where soffit material is required to be solid, structural design gaps shall be sealed to ensure continuity. Soffit ventilation is prohibited in Proximity Zones A and B, so these areas shall be sealed with a solid material and not ember protection mesh which would allow for embers to enter through soffit ventilation. Compliance with ceiling requirements is also allowed.

4. Proximity Zone C Soffit Ventilation. Ember protection mesh or prefabricated vents shall comply with the requirements of WUIC Section 506.5. Perforated soffit boards may be used; however, the opening size typically exceeds the 1/8" allowance of WUIC Section 506.5. In these instances, the required ember resistant mesh shall be fastened securely to the framing, prior to installation of the perforated soffit board. Refer to 7.3.12 for criteria required during the WUIC Inspection process.

5. Ceilings. Ceilings, such as a horizontal or sloped surface above usable space, must meet ceiling requirements, even if they also function as eaves/soffits. Standard eaves, up to approximately 24 inches deep and not over occupiable outdoor space, may follow eave requirements instead of ceiling requirements. Ceiling standards are more stringent; therefore, compliance with ceiling requirements also satisfies eave soffit requirements.

D. Gutters and Downspouts.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.4, 505.4, 506.4.6

In clarification to requirements outlined in Wildland-Urban Interface Code (WUIC) Chapter 5:

1. Gutters and Downspouts. Gutters and downspouts are not required by the WUIC. If installed, they must be made of noncombustible materials and fitted with non-corrosive, noncombustible leaf guards. Leaf guards do not need to meet the ventilation mesh requirements in WUIC Sections 504.10 (Proximity Zone A), 505.10 (Proximity Zone B), and 506.5 (Proximity Zone C).

2. Rainwater Collection Systems.

   (A) All above grade downspouts and other components of the conveyance system leading from the catchment area (i.e. where rainwater is collected, such as a roof and gutters) to the storage tank shall be non-combustible where located within 5 feet of a structure as measured from the eave or face of structure, whichever is furthest.

   (B) Rainwater storage tanks shall not be located within an Ember Ignition Zone (EIZ) unless the exterior materials of the tank are noncombustible.

   (C) Alternatively to noncombustible material, rainwater storage tanks may be placed in an ignition-resistant enclosure or buried below ground where allowed per the manufacturer.

E. Exterior Walls.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.5, 505.5

1. The compliant exterior wall material used to meet this section shall extend from the top of the foundation to the underside of the roof sheathing. Figure 4.3.2.E – 1

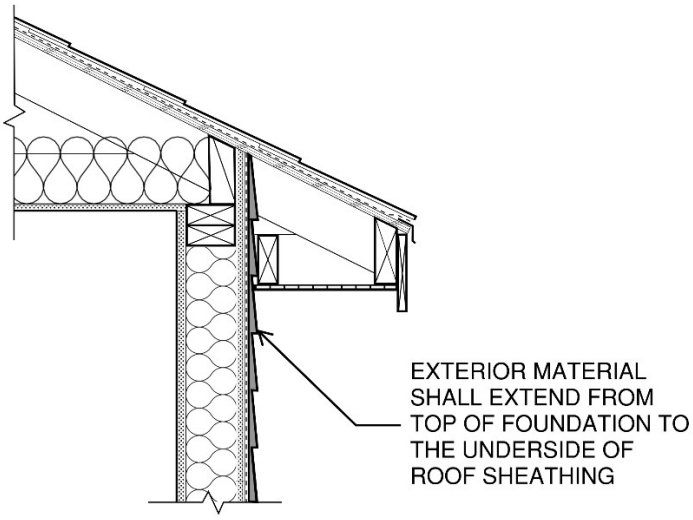



Figure 4.3.2.E – 1 – Zone A and B Exterior Wall at Eave

2. Exterior Wall Alternatives. The following options are acceptable alternatives to extending the exterior ignition-resistant finish to the underside of the roof sheathing. For all options, the interior of the soffit shall be visible for inspection, or a mock-up shall be provided at the initial Wildland-Urban Interface Code (WUIC) Inspection.

   (A) Provide two-layers of 5/8-inch Type X Exterior Gypsum Sheathing Board at the underside of the soffit. An additional layer of ignition-resistant material may be installed on the exterior side of the sheathing. Fire blocking shall be provided between the top plate and underside of the roof deck. See Figure 4.3.2.E – 2.

   (B) Provide ignition-resistant exterior wall sheathing such as fire-retardant-rated-wood sheathing or 5/8-inch Type X gypsum sheathing from the underside of the roof sheathing to a point at least 2 feet below the underside of the soffit. Ensure there is at least a 2-foot overlap with the ignition-resistant exterior wall finish. See Figure 4.3.2.E – 3.

(C) Provide a 1-hour rated roof-ceiling Underwriters Laboratories (UL) assembly approved for exterior applications at the eave. All layers of the assembly shall match the tested assembly, except an additional layer of non-combustible material (e.g. fiber cement, metal, etc.) may be installed on the exterior side of assembly. Fire blocking shall be provided where there is a gap between the top plate and underside of the roof deck or sheathing.

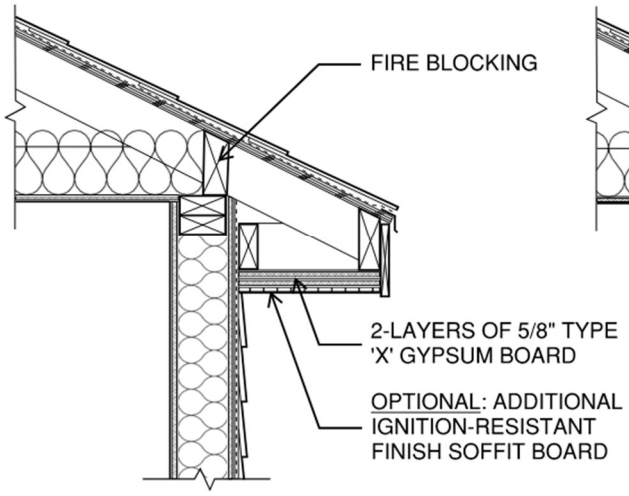



Figure 4.3.2.E – 2
Exterior Wall Alternative A

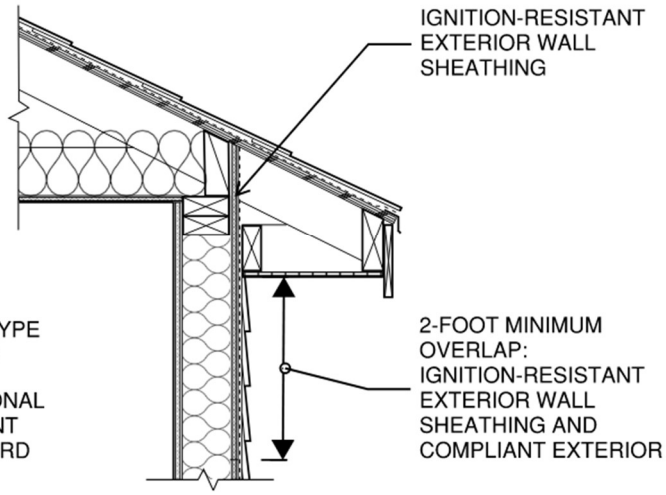



Figure 4.3.2.E – 3
Exterior Wall Alternative B

3. Flashing. Flashing required in Proximity Zone A per WUIC Section 504.5.1 shall be metal where exterior wall materials are combustible, including ignition-resistant exterior wall material that does not qualify as noncombustible. This does not include the interior face of the wall. Alternatively, noncombustible exterior wall material may be provided without gaps into the wall construction.

   At the ground, the noncombustible material or metal flashing shall be measured as a minimum of 6 inches extending vertically from grade. Concrete foundation may serve this purpose where wall materials are not located within 6 inches of the ground. The intent is to create a minimum size (6) inch noncombustible gap between the ground and combustible wall material to prevent fire intrusion.

F. Appendages and Structures.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.7, 505.7, 506.6

1. Applicability.

   (A) The requirements for Appendages and Structures apply to unenclosed structures such as a deck, balcony, carport, pergola, patio cover, awning, canopy, or similar structure.

      1) Within Proximity Zone A, this applies to all such structures, regardless of distance to nearest habitable or occupiable building. For large lots including multiple Proximity Zones, the fire code official may allow a reduction in requirements where the unenclosed structure is located in a less restrictive zone and at least 50 feet from a wildland area of any size.

      2) Within Proximity Zone B, this applies only to such structures within 30 feet of a Proximity Zone B building that includes habitable or occupiable space.

      3) Within Proximity Zone C, this applies only to such structures within 10 feet of a Proximity Zone C building that includes habitable or occupiable space.

   (B) Unenclosed structures that do not fall under the requirements in Wildland-Urban Interface Code (WUIC) Sections 504.7, 505.7, and 506.6 shall comply with all other requirements for that Zone as applicable to the structure (e.g. roofs, ceilings, vents, etc.).

   (C) Screen porch interiors are subject to Appendages and Structures requirements as the screen material is considered inconsequential. The structure is treated as a covered porch.

(D) Fully enclosed accessory buildings are not covered by this section. They shall follow the ignition-resistant construction requirements in WUIC Sections 504, 505, or 506 depending on Proximity Zone.

1) Appendages and Structures attached to, or located within the Proximity Zone distance of, an accessory building only need to meet this section when the accessory building includes habitable or occupiable space. Otherwise, the unenclosed appendage or structure shall meet the other requirements for the Proximity Zone (i.e. roof, ceilings, eaves, vents, etc.).

2. Ember Ignition Zone (EIZ).

The EIZ is only required to extend around an appendage as outlined in 4.3.3.A Ember Ignition Zone (EIZ).

3. Awnings.

Awnings may protrude into a more restrictive Wildland-Urban Interface (WUI) Proximity Zone without changing the Proximity Zone of the structure.

4. Fabric Canopy.

Fabric shade canopy materials shall comply with one of the following: Class A per American Society for Testing and Materials (ASTM) E84, Class A per ASTM E108, or tested in compliance with National Fire Protection Association (NFPA) 701. Tags or material identification shall be verifiable on site.

5. Exterior Patio Covers.

Patio cover framing, not subject to WUIC Sections 504.7.1 (Proximity Zone A) or 505.7.1 (Proximity Zone B), consisting of columns, posts, beams, bracing, rafters, purlins, bracing, joists and similar framing, shall be allowed to be built from any approved material provided the non-ignition-resistant material is completely enclosed with ignition-resistant material meeting the requirements of WUIC Section 503.2. Ventilation shall be provided per WUIC Sections 504.10 (Proximity Zone A), 505.10 (Proximity Zone B), 506.5 (Proximity Zone C) where needed. Storage or access points within the enclosures, including storage within the attic space, shall not be allowed. Refer to WUIC Sections 504.7 (Proximity Zone A), 505.7 (Proximity Zone B), and 506.6 (Proximity Zone C) including subsections for requirements and allowances at deck walking surfaces and framing associated with a patio cover.

G. Underfloor Enclosure for Decks, Appendages, and Structures.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.7.1, 505.7.1, 506.6

1. Where underfloor enclosure is required per Wildland-Urban Interface Code (WUIC) Sections 504.7.1 and 505.7.1 for unenclosed appendages and structures over a slope greater than 10 percent, the underfloor materials shall be a compliant material per WUIC Sections 504.7 and 505.7. The requirements of Sections WUIC 504.7.1 and 505.7.1 do not replace the requirement for underfloor material to be ignition-resistant or otherwise compliant.

2. Wildland-Urban Interface (WUI) Zone C alternative: In a Proximity Zone C area on a property with a 10% or less slope, a wire mesh product in compliance with WUIC 506.5.1 and Class A flame resistant rated per American Society for Testing and Materials (ASTM) E84 (30 minute test) or ASTM E2768 shall be allowed as an enclosure material for the underside of Decks and Appendages per WUIC 506.6 Exception 2.

H. Fences.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.7.1, 505.7.1, 506.6

1. Location. Fences of any height must comply with the associated code section for the required distance from a building, according to the building's Proximity Zone.

2. Measurement. The distance is measured from the face of the exterior wall finish to the nearest face of the fence. For unenclosed appendages (e.g. deck, balcony, carport, pergola, patio cover, awning, canopy, etc.) shall be measured from the face of the appendage to the nearest face of the fence.

3. If a new structure is placed within 10 feet (or 5 feet for buildings constructed under the Residential Code in Proximity Zone C) of an existing non-complying fence, the fence should be brought into compliance with Wildland-Urban Interface Code (WUIC) requirements. Alternatively, one of the following equivalent alternatives may be pursued.

   (A) The wall of the new building within 10 feet, or 5 feet for Residential Code buildings in Proximity Zone C, of the fence must be 1-hour fire-resistant rated construction with an ignition-resistant exterior finish. Any eave that encroaches into this area must also be 1-hour protected, non-vented, and have an ignition-resistant exterior finish.

   (B) Alternatively, the exterior finish material of both the wall and the eave may be non-combustible, meaning no combustible materials are allowed, even if they are ignition-resistant.

4. See 4.3.5.C for fences located within 30 feet of an ignition-source.

I. Exterior Glazing and Doors.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.8, 504.9

1. Windows and doors shall meet at least one requirement in Wildland-Urban Interface Code (WUIC) Sections 504.8 (Windows) and 504.9 (Doors), and do not need to meet all the requirements listed. Typical double pane, or dual pane, windows are sufficient to meet the glazing requirement.

2. Where noncombustible frames are required, metal, metal clad, and fiberglass frames are considered a noncombustible material, such as when noncombustible material is within 30 feet of an ignition-source. 20-minute rated fiberglass door and frame would be an acceptable substitute for a noncombustible door.

J. Ventilation.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.10, 505.10, 506.5

Required mesh barriers in the openings of a structures prevent potential wildfire embers from entering the structure and causing the fire to extend into the interior.

1. Either Performance requirements or Prescriptive requirements shall be met, compliance with both is not required.

2. Items exempt or excluded from these requirements:

   (A) dryer vents

   (B) typical roof plumbing vent stacks

   (C) outside air vents that enter directly into a Heating, Ventilation, and Air Conditioning (HVAC) Rooftop Unit (RTU)

   (D) kitchen hood exhausts

   (E) Additional exemptions for mechanical systems may be approved by the fire code official when documentation demonstrates that embers cannot enter a mechanical assembly and reach combustible materials.

   (F) Make-up air vents and louvers with dampers require ember-protection mesh unless documentation demonstrates that the damper will automatically close when the system is not in use, remain closed during a power outage, and resist pressure differentials caused by wind.

3. Austin Fire does not determine whether ember-protection mesh affects product warranties; applicants or their representatives are responsible for verifying this.

4. Where meeting the required ember-protection standards for mechanical equipment is difficult due to warranty conflicts or the lack of a compliant product, the applicant may propose an alternative solution, per Fire Code Section 104, that satisfies the Wildland-Urban Interface Code (WUIC) vent performance requirements.

5. Commercial, non-residential, structures may be exempt from 144 square inch size restriction for ventilation openings. Ember protection vent mesh must be installed in such a way that no potential for gaps or spaces can develop over time.

6. Commercial structure balconies required to be ventilated per Building Code Section 2304.12.2.5 must utilize vents that meet both American Society for Testing and Materials (ASTM) E2886 and 1-hour rated per ASTM E119, when located within Proximity Zone A or B. Within Proximity Zone C, ventilation shall meet the requirements of WUIC Section 506.5.

7. Gable vents shall be constructed of ignition-resistant material that meets the wall requirements of WUIC Section 504.5 for Proximity Zone A and WUIC Section 505.6 for Proximity Zone B. Within Proximity Zone C the vent may be any material otherwise allowed by City Code if it meets the requirements of WUIC Section 506.5 and subsections.

K. Accessory Structures.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 504.10, 505.10, 506.5

1. All structures, regardless of use, must comply with code unless exempted by Wildland-Urban Interface Code (WUIC) Section 501.1.

2. Only unenclosed appendages and unenclosed accessory structures are subject to WUIC Sections 504.7, 505.7, and 506.6.

3. WUIC Sections 504.10, 505.10, and 506.5 remain in the local code amendments to avoid confusion that could occur if it were deleted without replacement. The intent is for accessory structures (not subject to WUIC Sections 504.7, 505.7, or 506.6 Appendages and Structure) to meet requirements similar to the buildings they serve.

L. Artificial Turf and Manufactured and Alternative Ground Surface Materials.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 603.2.1 Exception 3

1. Artificial turf must have a Class A fire rating in accordance with American Society for Testing and Materials (ASTM) E84 or ASTM E108 when used within the fuel modification distance found in WUIC Table 603.2. This applies even when 4.3.3.B does not require defensible space. Per WUIC Section 603.2.1, artificial turf may not be installed within 5 feet of a structure, as measured from the roof overhang.

2. Sports courts must be specified and installed according to the current regulations that apply to those materials. These surfaces are not subject to review for ignition resistance.

M. Chimneys.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 605

Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances shall be provided with a spark arrestor in accordance with Wildland-Urban Interface Code (WUIC) Section 605. Spark arrestors are not required for direct vent gas fireplaces that have a fully enclosed firebox with a fixed, non-removable glass front that prevents the use of solid fuels such as wood or food.

## 4.3.3 EMBER IGNITION ZONE (EIZ) AND DEFENSIBLE SPACE

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 603

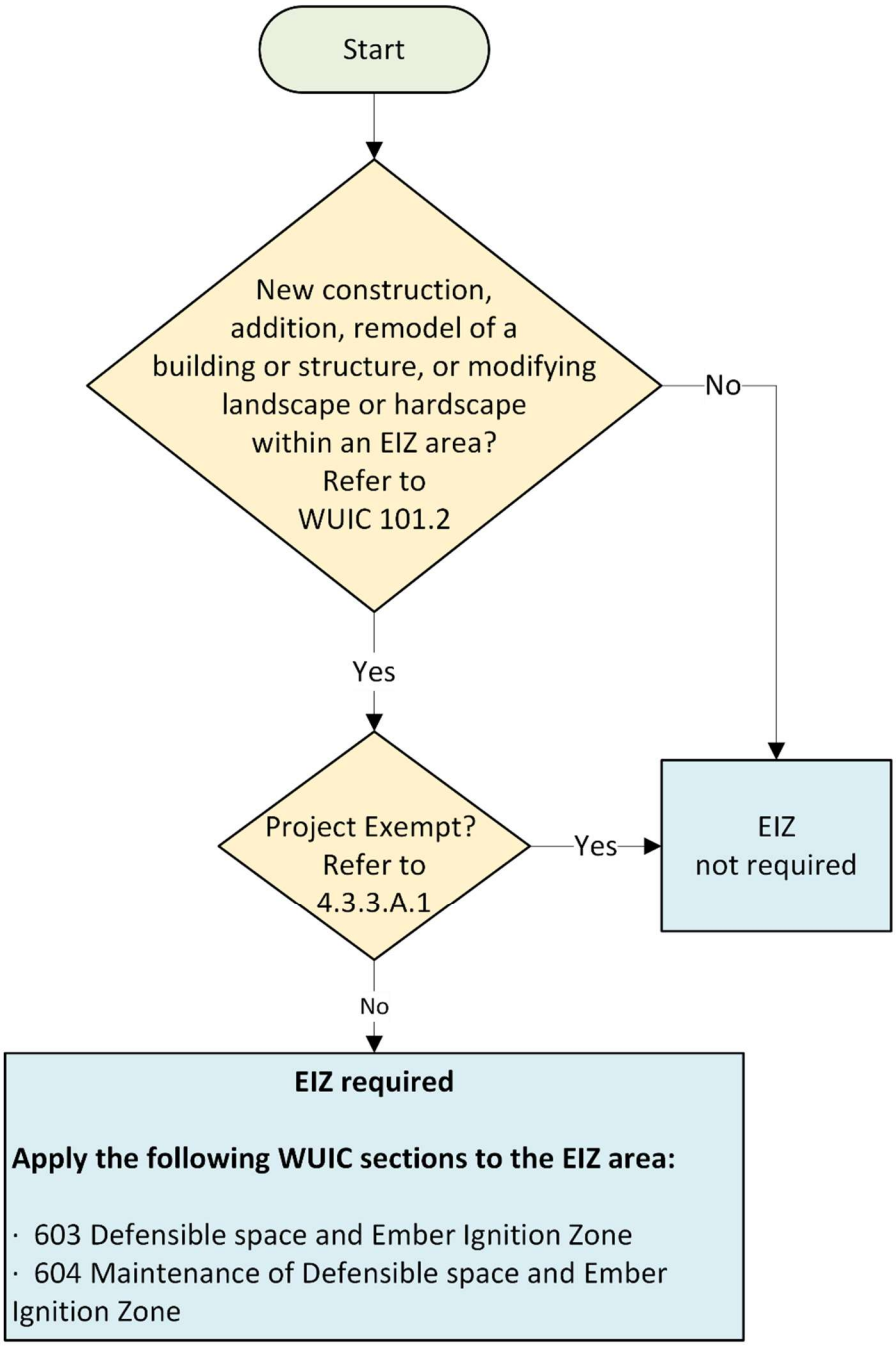
~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Section 601, General.~~
~~Chapter 6 covers minimum fire protection requirements to reduce risk of loss of life and property from wildfire exposures in WUI areas. Property owners have access to assistance through AFD, on-line resources, community groups, and qualified consultants to determine wildfire risk on a property and if that risk warrants protections beyond these minimum requirements. Preparation and situational awareness are critical for wildfire safety. Ready, Set, Go! ® and Firewise USA® local programs and the Austin - Travis County Community Wildfire Protection Plan provide detailed information.~~
~~Provisions of Chapter 6 primarily apply to new buildings, structures and premises located within the WUI area. Chapter 6 applies to a site or structure if it constitutes a distinct hazard.~~
~~Chapter 6 provisions are available to property owners to obtain permits to develop a property that has the conditions of Section 107.2.1, a subsection of 107.2, Permits Required. Section 107.2.1 lists the conditions that~~

~~would make a site ineligible for a permit. To be eligible for a permit, the property owner must correct at least one of these conditions. If an applicant corrects conditions described in (a) or (c), then Section 603, Defensible Space, of this chapter applies. A property owner could also choose to correct (a) by implementing a vegetation management plan per Section 502.2 or by a Fire Hazard Severity Reduction.~~
~~Appendix C, Fire Hazard Severity Form, is available to reduce hazard severity. If the applicant proposes to use defensible space to reduce the score on the fire hazard severity form, then it shall be per Section 603.~~
~~In addition to the requirements of this chapter, Appendix A, General Requirements, includes provisions related to defensible space. Those provisions include vegetation control for roadways and electrical transmission and distribution lines, access restrictions that prohibit vehicles from obstructing defensible space, clearance requirements for ignition source control, control of storage, protection of pumps and water storage facilities, and land use limitations.~~

Where Required.
This section addresses requirements for the Ember Ignition Zone (EIZ) and defensible space.

- EIZ.
  EIZ requirements apply to all structures regulated by the Wildland Urban Interface Code (WUIC). Refer to Figure 4.3.3.A – 1 – Flow Chart: When an EIZ is required.
- Defensible Space.
  Defensible space requirements apply only to properties using defensible space as part of a hazard mitigation package per 4.3.4 Hazard Mitigation. Refer to Figure 4.3.3.B – 1 – Flow Chart: When Defensible Space is required.

[BELOW] Figure 4.3.3.A – 1 – Flow Chart: When an EIZ is Required




A. Ember Ignition Zone (EIZ)

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 603.2.1

1. Where Required and Exceptions.

All structures shall have an EIZ surrounding them per Wildland-Urban Interface Code (WUIC) Section 603.2.1 and Figure 4.3.3.A.1-1 with the following exceptions:

(A) When an unenclosed appendage, projection, or structure subject to WUIC Sections 504.7, 505.7, or 506.6 is constructed entirely of noncombustible materials (such as concrete, fiber-cement, stucco, or metal), the EIZ may be measured from the building's exterior walls rather than from the outermost edge of the unenclosed appendage.

(B) In Proximity Zone B, an unenclosed appendage, projection, or structure that is not required to meet the requirements within WUIC Section 505.7 Appendages and Structures due to being located more than 30 feet from a habitable or occupiable building.

(C) In Proximity Zone C, an unenclosed appendage, projection, or structure that is not required to meet the requirements within WUIC Section 506.6 Appendages and Structures due to being located more than 10 feet from a habitable or occupiable building.

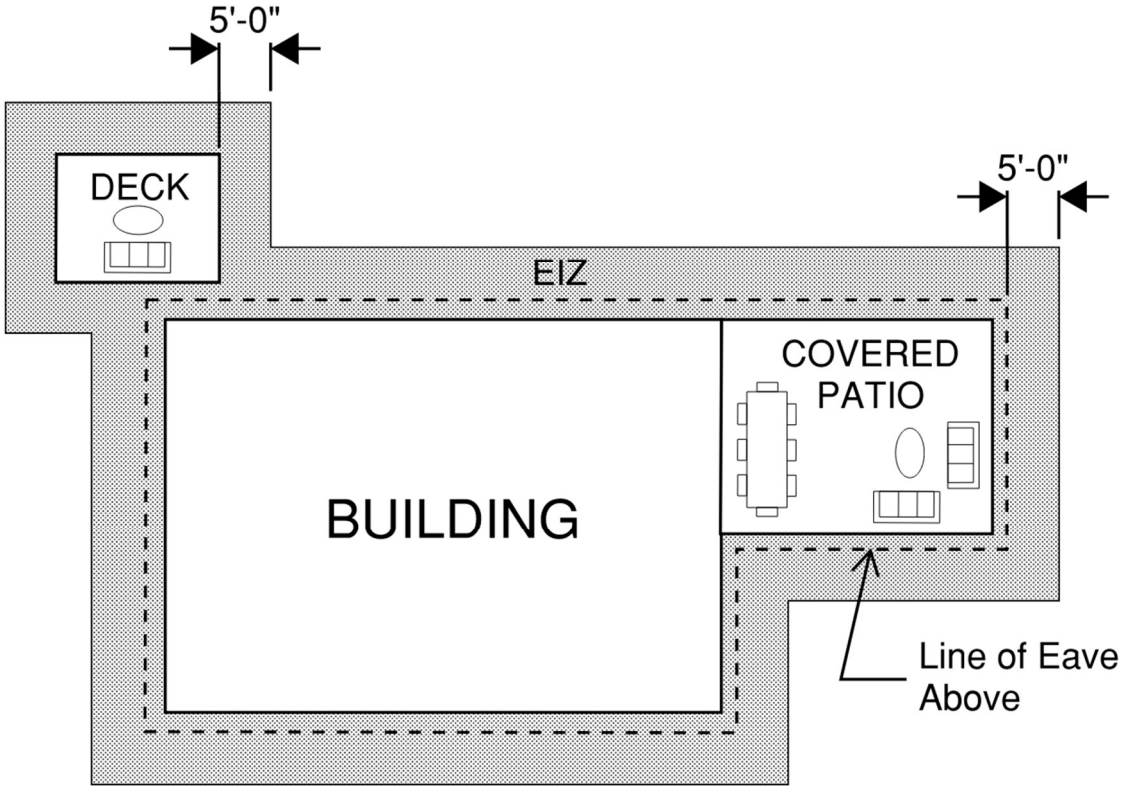



Figure 4.3.3.A.1 – 1 - Ember Ignition Zone (EIZ) Example

2. Building Additions.

The EIZ shall extend around the perimeter of the new addition only. It is not required to extend around the entire existing building unless other existing portions of landscape or hardscape are being modified as part of the project. See Figure 4.3.3.A.2-1.

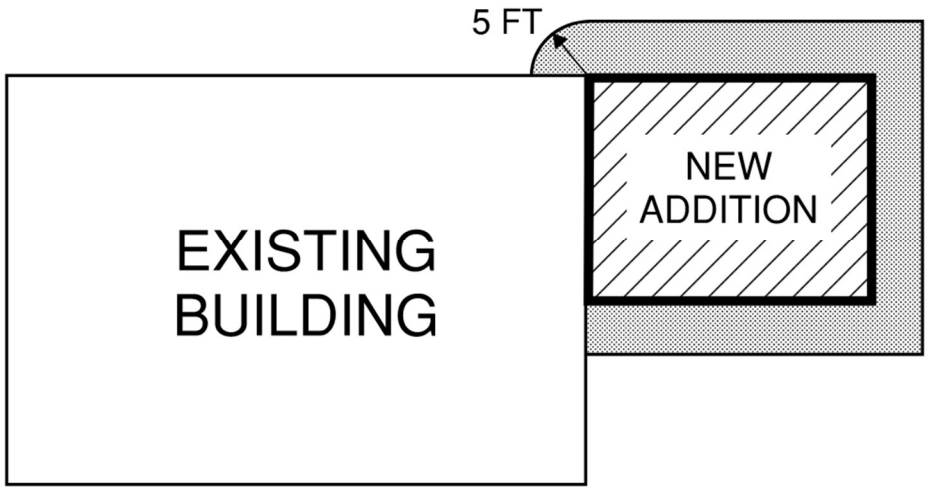


Figure 4.3.3.A.2 – 1 – EIZ Example at New Addition

3. Alterations

For alterations, the EIZ is required only for the portion of landscape or hardscape being modified as part of the project.

4. Vegetation Treatment Adjacent to and Within an EIZ.

(A) New vegetation.

1) Refer to Figure 4.3.3.A.4 – 1.

2) Refer to the Austin Fire WUI Vegetation Guide for vegetation and planting recommendations.

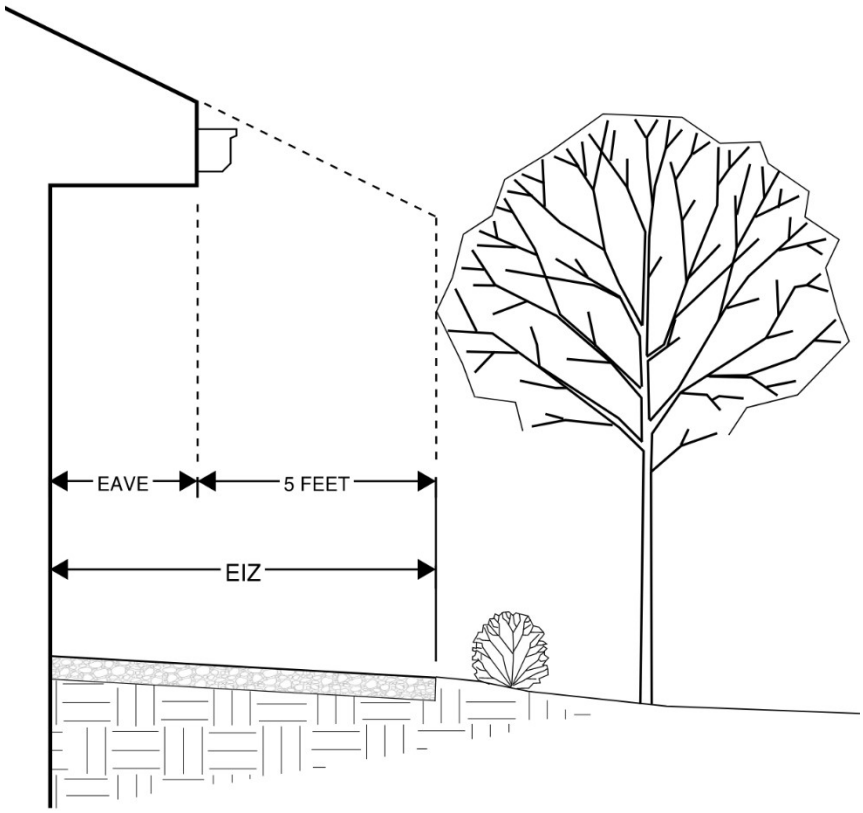



Figure 4.3.3.A.4 – 1 – New Vegetation Adjacent to EIZ

(B) Existing vegetation. Refer to Figure 4.3.3.A.4 – 2.

All existing vegetation must be removed within a new EIZ with the following exceptions:

1) Protected and heritage trees retained per WUIC Section 603.2.1 Exception 1.

2) Tree canopy within EIZ is allowed, provided it is maintained per WUIC Section 604.4.

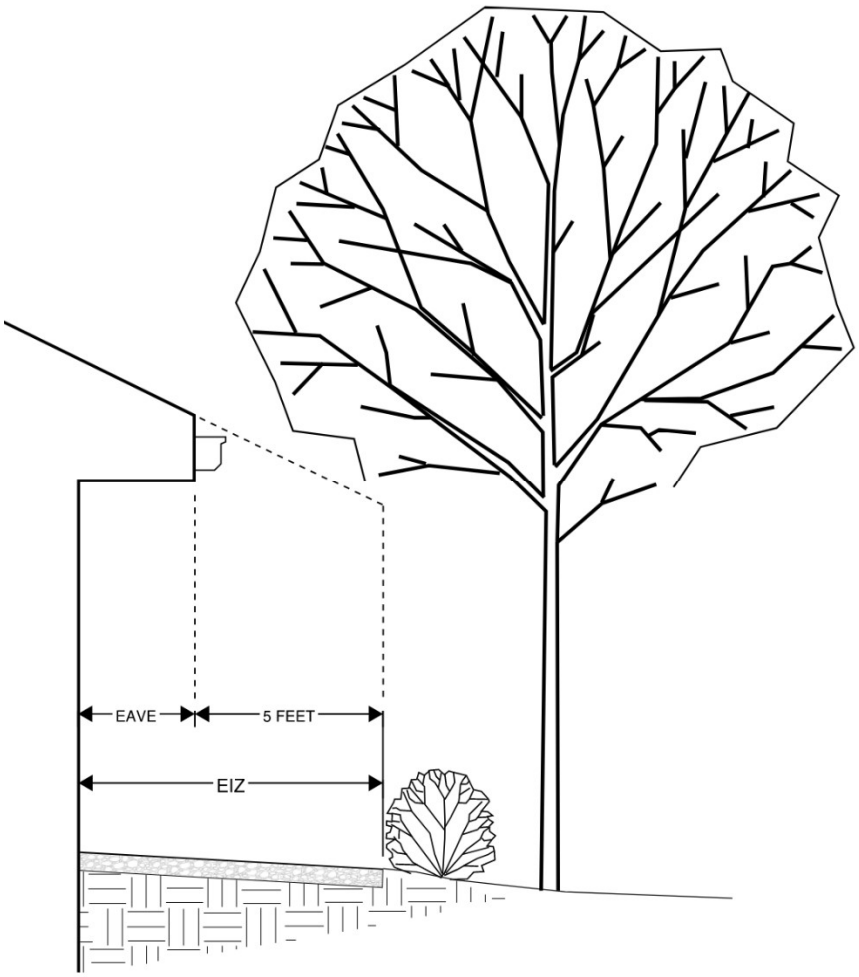



Figure 4.3.3.A.4 – 2 – Existing Vegetation Adjacent to EIZ

5. Property Line Limits.

An EIZ may terminate at the property line unless the properties are part of a unified development agreement.

6. Combustible Materials on Accessory Structures.

Combustible furniture and similar materials that are otherwise prohibited within the EIZ may be placed on unenclosed accessory structures such as decks, balconies, screen porches, and patios. See Figure 4.3.3.A.1-1.

7. Irrigation Within the EIZ.

Irrigation may be provided within an EIZ if needed. Preventative measures are recommended to prevent vegetation growth, except for grass where its use is permitted in Proximity Zone C.

8. Maintenance of EIZ.

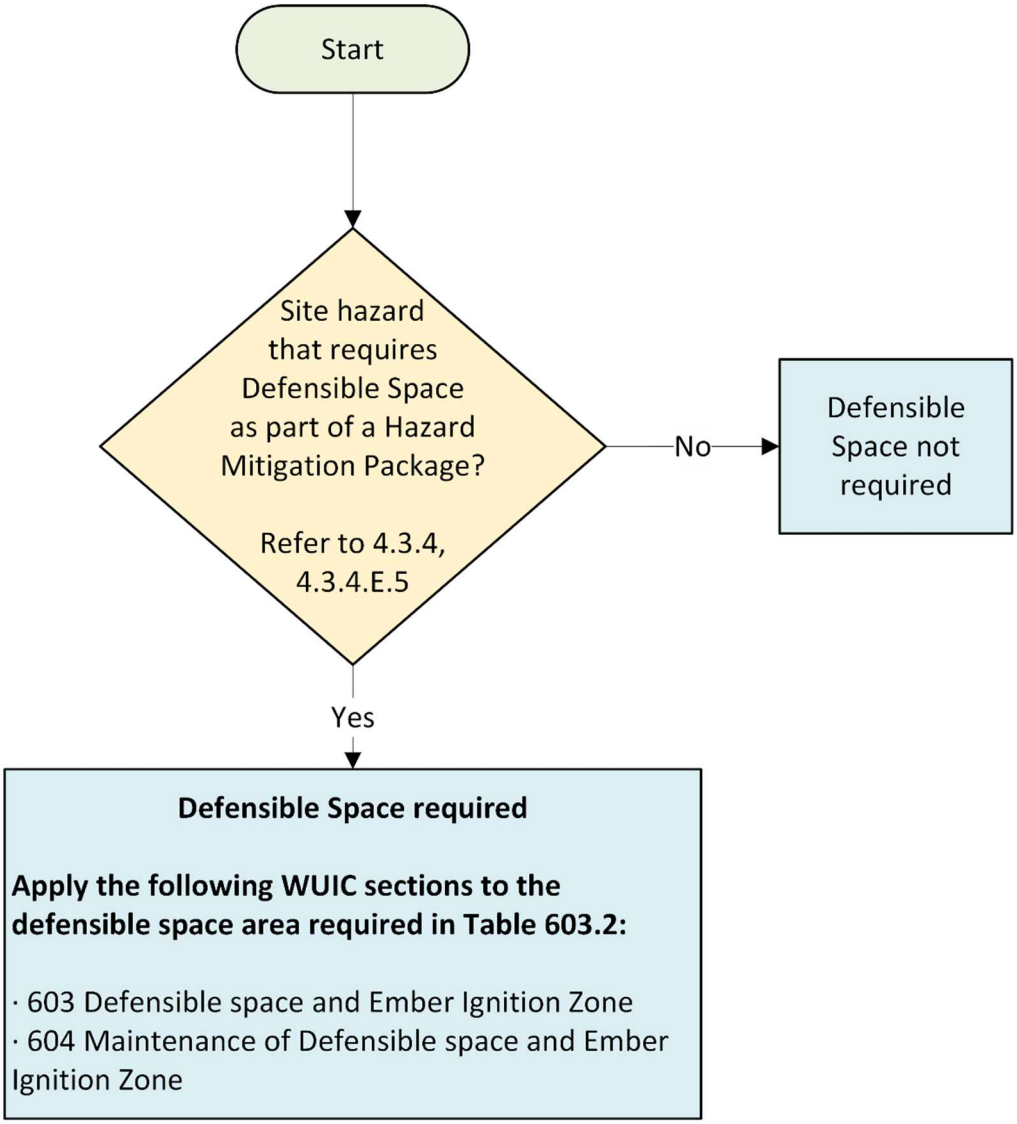
Persons owning, leasing, controlling, operating, or maintaining buildings or structures are responsible for maintenance within the EIZ per WUIC Section 604.

B. Defensible Space.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 603

Defensible space is a recommended best practice for land management demonstrated to reduce loss of assets during wildfire events in combination with structure hardening.

[BELOW] Figure 4.3.3.B – 1 – Flow Chart: When Defensible Space is Required




1. Where Required.

   (A) Defensible space is only mandatory for properties using defensible space as part of a hazard mitigation package per 4.3.4 Hazard Mitigation. See figure 4.3.3.B – 1 – Flow Chart: When Defensible Space is required.

   (B) For other purposes, defensible space is recommended but not required.

   (C) When provided, fuel modification shall follow Wildland-Urban Interface Code (WUIC) Table 603.2 Required Defensible Space. Refer to Figure 4.3.3.B.1

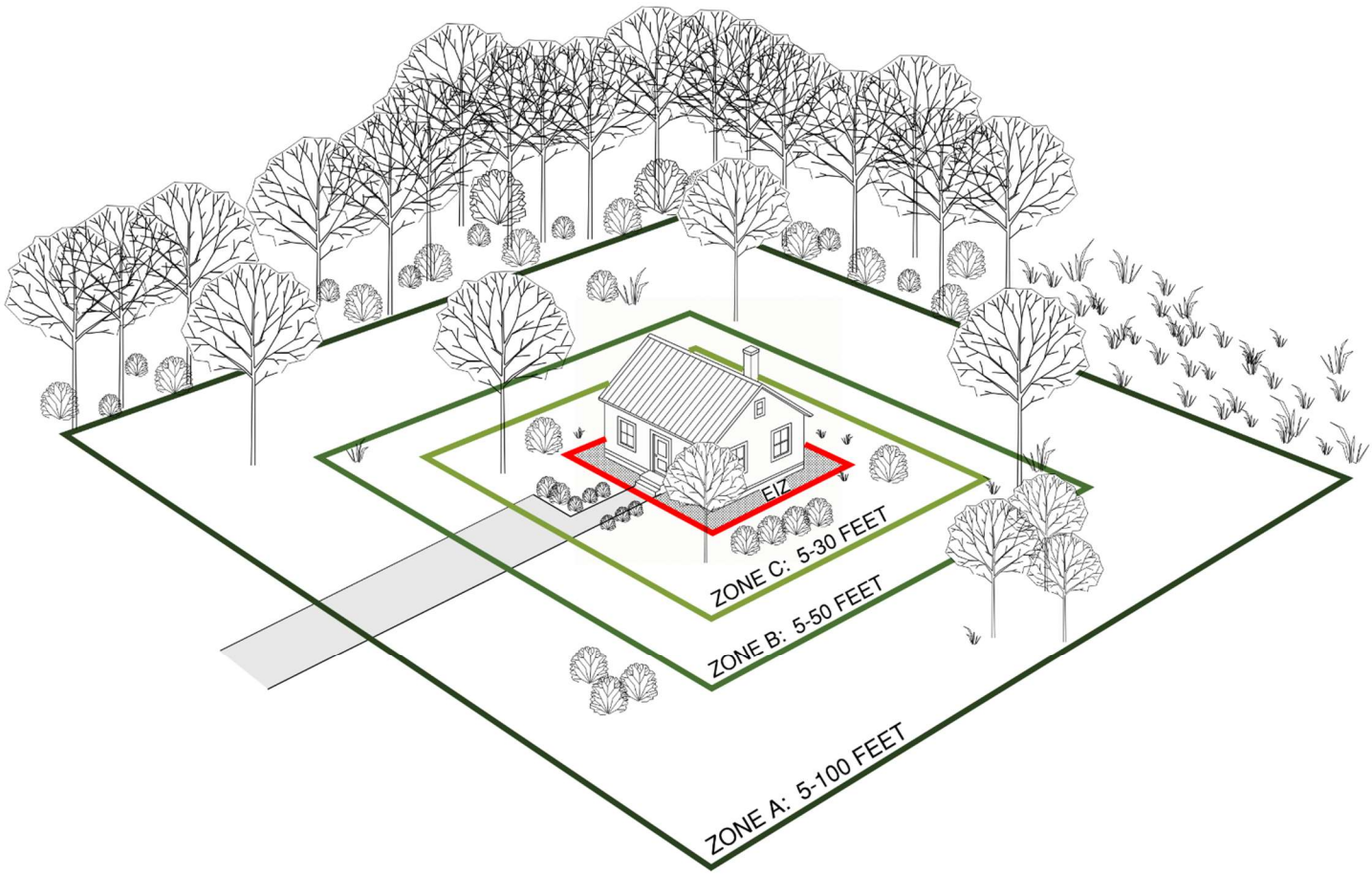



Figure 4.3.3.B.1 – 1 – Defensible Space per Proximity Zone

2. Vegetation Requirements and Considerations Within Fuel Modification Area.

   (A) The fire-resistive properties of vegetation must be considered in designing or evaluating defensible space.

   (B) Refer to 4.3.9 Fire-Resistive Vegetation.

   (C) A Vegetation Management Plan is required when defensible space is provided as part of a hazard mitigation package, refer to WUIC Appendix B and 4.3.6 for requirements.

3. Manufactured and Alternative Ground Surface Materials, see 4.3.2.L.

4. Maintenance of Defensible Space.

   Persons owning, leasing, controlling, operating, or maintaining buildings or structures are responsible for maintenance with defensible spaces per WUIC Section 604.

~~CITY OF AUSTIN WUI RULE~~
~~Reference International WUI Code, Section 603, Defensible Space and Section 604, Maintenance of Defensible Space.~~
~~When required, or allowed, defensible space shall be provided per this section and shall be not less than thirty (30) feet from the structure or to the property line, whichever is less. The code official may increase or decrease this distance based on a site-specific analysis. Fuel modification distances in Table 603.2 can be used as a reference for increasing distances based on hazard severity.~~
~~Conditions for increased or decreased defensible space dimensions include but are not limited to: hazard severity, structure ignition potential, topography, proximity to wildland fuels, proximity to other structures, space for fire suppression operations, access, water supply, and factors that influence the rate and spread of fire near the structure.~~
~~Owner or applicant shall submit information necessary to demonstrate compliance with this section including defensible space fuel modification distance, structure ignition potential (required for site plans~~

and building permits), tree and ground cover descriptions, and any other features of the landscape that would affect fire rate of spread or intensity (i.e. natural features such as rock outcrops or bluffs, water features, retaining walls, hardscape, flammable fences).
For extenuating circumstances or if required by the code official, the owner or applicant may provide a defensible space plan prepared by a qualified arborist, registered professional landscape architect, or other qualified professional.
Submittals or plans will be reviewed for minimum requirements for: a) clear areas for fire suppression operations, b) ground cover potential for fire transfer to tree canopies or structures, and c) tree maintenance to prevent fire from entering or spreading through tree canopies.
Ignition potential of the structure will be considered. These standards do not supersede City Code regulations regarding endangered species habitat, property maintenance, land clearing, vegetation removal, critical environmental features protection, or tree protection. Land Development Code required landscaping will be accommodated to the greatest extent feasible and reasonable.

Ground cover potential for fire transfer to tree canopies or structures can be addressed by providing a minimum of six (6) feet clearance between the ground cover and the tree canopy or flammable parts of structures. The distance should allow for growth of the ground cover and take into consideration flammability of trees or structure components. Groundcover includes understory plants and shrubs.
Tree flammability can be affected by canopy density, leaf resin, and prevalence of dead material. Open canopy trees with low resin leaves such as Texas Red Oak, Pecan, and Cottonwood are examples of low flammability trees while dense canopy trees with high resin leaves such as junipers (Eastern Redcedar, Ash Juniper), Italian Cypress and Yaupon Holly are examples of high flammability trees. Review will typically look for the minimum six (6) feet of clearance from ground cover and structures.

Structure flammability can be based on Sections 503 and 504 of this code but should consider presence of transfer materials such as debris in roof gutters and next to structures, flammable lattices, and items addressed in other sections of Chapter 6. Fire transfer materials not regulated by this code can also include items such as flammable door mats, lawn furniture cushions or other flammable items near the structure. Temporary exposures such as open doors (including garage doors) or windows can also provide for fire transfer or exposure to embers.
One best management practice for Central Texas vegetation types is to maintain tree canopy cover to retain soil moisture and reduce the rate of growth of fine, flashy fuels that can increase the rate of spread of fire in the landscape. Site plan and building permit submittals will not be reviewed for tree canopy separation except for high flammable trees near structures or in groups.

## 4.3.4 HAZARD MITIGATION: EXTREME HAZARD, LIMITED ACCESS, AND SITE-SPECIFIC HARDSHIP

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 101.2, 101.5, 101.4, 105.2.1, 202.1, 402.1.1, 402.2.1, 502 and Appendix C

CITY OF AUSTIN WUI RULE
International WUI Code, Reference Section 502.1 & Table 502.1 Fire Hazard Severity.
Fire hazard severity of a site located in the WUI area is determined by this section. Fire hazard severity is used to determine the necessary increased protection of buildings. The purposes of increased protection include: protect life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels. To determine the hazard severity of the site: use Table 502.1; and determine the distance from the Wildland, the slope of the property towards the Wildland and the Type of Fuel Model on the site. Refer to Example Table below for examples described in 1 and 2.
Examples
1. For instance, a property that is less than one hundred fifty (150) feet from the Wildland, has a slope of between 10% and 25% and has a medium fuel model would be an Extreme Hazard (square).
2. A property that is further than one hundred fifty (150) feet from the Wildland, sloped towards the Wildland less than 10% and has a light fuel model would be considered a Moderate Hazard (Circle).

(superscripts represent which example)
M = Moderate Hazard; H = High Hazard; E = Extreme Hazard
a. Where required by the Fire Chief, fuel classification shall be based on the historical fuel type for the area.

A. General.

1. Projects that cannot meet minimum Wildland-Urban Interface Code (WUIC) requirements must provide mitigation. Circumstances that commonly require mitigation include:

   (A) Extreme Hazard properties (4.3.4.B)

   (B) Limited Access in an existing community (4.3.4.C)

      1) Limited Access Residential Infill Projects

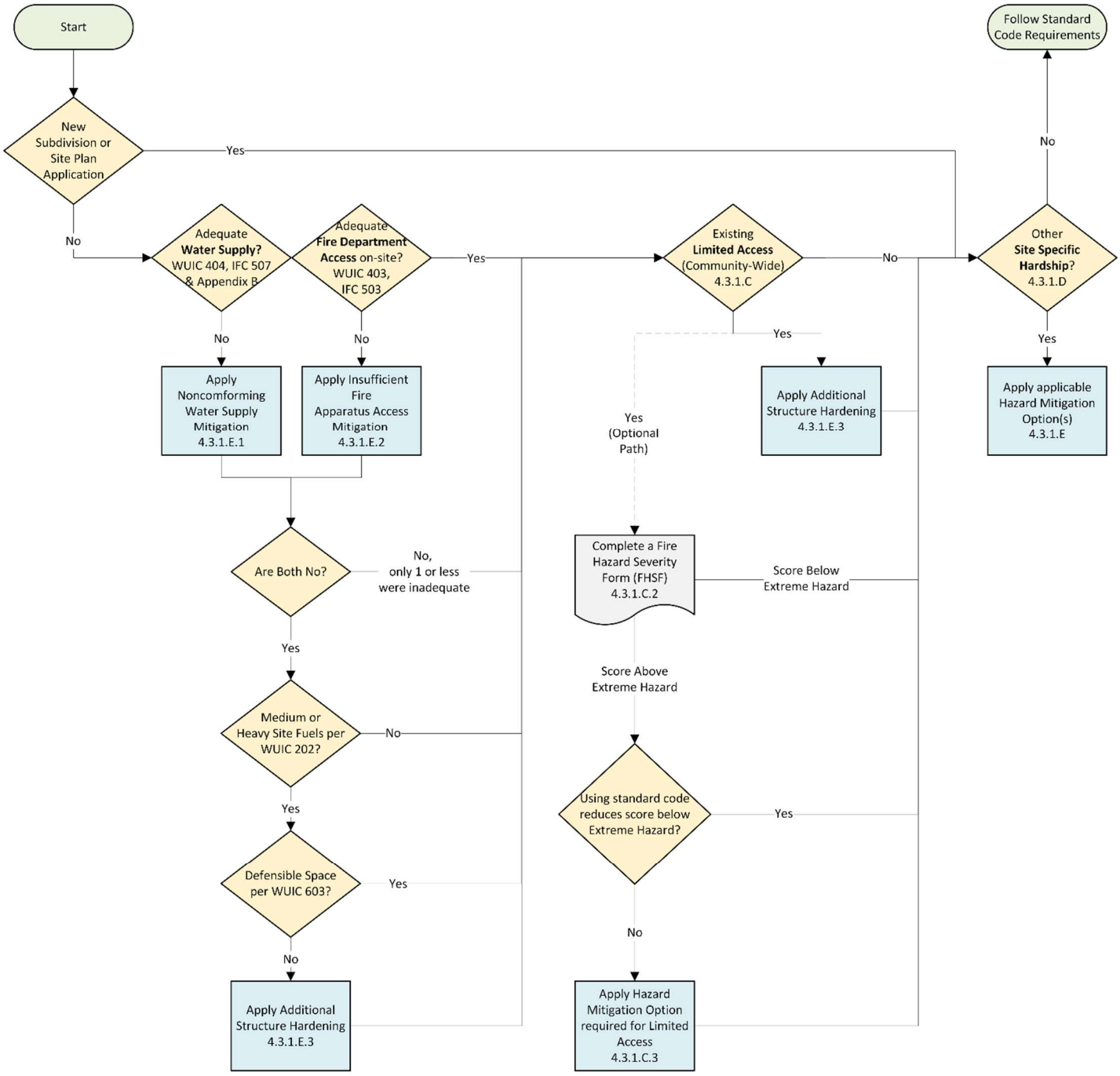
      2) Projects where more than 30 dwelling units are served by a single fire apparatus access road

   (C) Site Specific Hardship where strict compliance is infeasible (4.3.4.D)

2. Determine if hazard mitigation is required for a project using the flow chart below (Figure 4.3.4.A – 1).

3. Submittal Requirements: Where mitigation is required, an Alternative Method of Compliance (AMOC) form shall be completed outlining the hazard and mitigation. It is recommended to consult with Wildland-Urban Interface (WUI) Plan Review staff in advance of application submittal.

[BELOW] Figure 4.3.4.A – 1 - Hazard Mitigation Flow Chart




B. Extreme Hazard.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 502.1

Properties classified as Extreme Hazard under Wildland-Urban Interface Code (WUIC) Section 202 and meeting all four conditions in WUIC Section 502.1(1) must provide mitigation for new work. Completing the Fire Hazard Severity Form (FHSF) is not required unless requested by the fire code official. See 4.3.4.B.2 and 4.3.4.B.3 if the form is used.

1. Required Mitigation:

(A) Nonconforming Water Supply Mitigation (4.3.4.E.1)

(B) Insufficient Fire Apparatus Access Mitigation (4.3.4.E.2)

(C) Additional Structure Hardening (4.3.4.E.3)

2. Additional Hazard Mitigation Options (4.3.4.E) may be required when hazards exist beyond the four WUIC Section 502.1(1) conditions.

Mitigation work may be included in the same permit as the primary scope of work. If mitigation requires a separate permit, the mitigation permit must be approved before the primary permit. The mitigation permit must then be finalized either before or concurrently with the primary permit.

C. Limited Access.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 101.5, 202.1, 402.1.1, 402.2.1

This section applies to residential and multi-family projects within existing subdivisions where emergency access is limited at the community scale. These projects must mitigate wildfire risks associated with inadequate access and constrained evacuation capacity.

New subdivisions and site plan applications must meet all Wildland-Urban Interface Code (WUIC) requirements without reliance on mitigation provided in this section. Mitigation options are intended only for existing-site constraints, not as a substitute for compliance in new subdivisions. Alternative Mitigation Measures may be considered where authorized by Chapter 1 of the WUIC and Fire Code, including projects where a new subdivision or site plan is added to a pre-existing limited access community.

1. Affected Project Types.

(A) Limited Access Community and Limited Access Residential Infill Project (WUIC Section 202), may be identified using:

1) Prescriptive Method: Areas shown as a Limited Access Community on the Wildland-Urban Interface (WUI) Map.

2) Analysis Method:

- Begin at the proposed dwelling unit (as defined by the WUIC).
- Determine whether fewer than two routes reach a Primary Road (see 4.1.1.A).
- If only one route exists, count the dwelling units served by that single route.
- If more than 30 dwelling units are served, the area is a Limited Access Community.
- Austin Fire may be contacted for assistance.

Determining Road Classification:
Roadway types (Primary vs. Secondary, see 4.1.1.A) may be verified using the City of Austin Street Network Map or another City-provided resource.

(B) Single Access Road Projects.

Projects where more than 30 dwelling units are served by a single fire apparatus access road.

2. Mitigation Pathways.

Most Limited Access properties require some level of wildfire mitigation. To simplify compliance, Austin Fire has established Additional Structure Hardening as the default modification (Fire Code Section 104.2.4 Modifications) for projects subject to this section. This option provides a consistent level of risk reduction for most sites.

Optional Use of the Fire Hazard Severity Form (FHSF).
The Fire Hazard Severity Form (WUIC Appendix C) remains available as an optional method for applicants who prefer to evaluate whether mitigation is required. Applicants must complete the form to the best of their ability; final scoring is determined by the fire code official.

This option may be beneficial for the minority of properties that already meet current code requirements, such as neighborhoods with adequate site conditions except for access limitations, and do not present additional hazards (e.g., steep slopes, dead-end roads, buildings less than 10 feet apart, lack of on-site access, inadequate hydrant placement).

Using the FHSF does not guarantee exemption from mitigation; applicants must meet the score thresholds to avoid Additional Structure Hardening.

Austin Fire may publish additional guidance and qualifying exceptions to accompany a simplified version of the form.

3. Required Mitigation.

(A) Default Mitigation Requirement.

Projects subject to this section must implement Additional Structure Hardening (4.3.4.E.3), unless the project successfully demonstrates through the FHSF that mitigation is not required.

(B) Projects Utilizing the FSHF:

Projects electing to use the FSHF may:

1) Implement Additional Structure Hardening, or

2) Reduce the Fire Hazard Severity score through corrective action to:

- Less than 15 for Part 1,
- Less than 30 for Part 2, and
- Combined Part 1 and Part 2 score of less than 40

3) For voluntary use of the FHSF outside of Limited Access project types, applicants must achieve a combined score of less than 40.

4) Multiple mitigation actions may be needed to achieve the required score reduction. Mitigation measures should directly address the hazards identified.

5) If site constraints prevent reducing the score below the Extreme Hazard threshold, the fire code official may determine that mitigation is satisfactory if all identified risks are otherwise addressed (e.g., access limitations, vegetation hazards, structure proximity).

(C) Additional Mitigation Requirements.

Additional mitigation requirements may be necessary where hazards in addition to Limited Access are present on the site, such as inadequate water supply or inadequate on-site access. See 4.3.4.E.

D. Site Specific Hardship

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Section 104, Fire Code (LDC 25-12, Article 7) Section 104.2.4 Modifications

Projects must be designed to comply with all applicable codes. A hardship exists only when compliance is infeasible due to unique site conditions. In such cases, the fire code official may approve an alternative method that provides equivalent protection.

Required Mitigation
Mitigation must address the specific hardship and may include one or more Hazard Mitigation Options (4.3.4.E).

Example:

- Hardship: A protected tree prevents installation of a required access route.
- Mitigation: Provide Additional Structure Hardening for the affected structure; additional measures may apply based on site specific conditions.

E. Hazard Mitigation Options.

Implementation of these options may require an approved Alternate Method of Compliance (AMOC) form, in accordance with Fire Code Sections 104.2.3 and 104.2.4. The fire code official may authorize modifications based on specific site conditions.

1. Nonconforming Water Supply Mitigation.

(A) Hazards addressed

1) Fire flow deficiencies (Fire Code Section B105)

2) Fire hydrant deficiencies (Fire Code Section 507)

3) Limited access, as part of larger mitigation package (4.3.4.B)

4) Extreme Hazard conditions, as part of larger mitigation package (4.3.4.C)

(B) Mitigation.

One or more of the following options may be used to address insufficient water supply:

1) Upgrade water infrastructure.

Provide adequate fire flow per Fire Code Chapter 5 and Appendix B.

2) Reduce the fire-flow calculation area.

Adjust the building size so that the fire-flow calculation area fits within the allowable size for the fire flow available at the nearest hydrant.

3) Provide a Fire Wall (Building Code Section 706) to create separate fire-flow calculation areas.

This option only applies to:

- Buildings designed to meet the Building Code
- Two-family dwellings designed to meet the Residential Code as separation between the two dwelling units

The fire wall must meet Building Code Section 706. No openings shall be allowed in the fire wall per Fire Code Section B104.2.

For two-family dwellings built under the Residential Code:

- Residential Code separation walls are not equivalent to Building Code Fire Walls per Building Code Section 706 and do not satisfy this option.
- The design professional must verify Building Code compliance during plan review and inspection, may utilize a third-party to provide verification, or may take advantage of an applicable review and inspection pathway if available.

4) Install an automatic fire sprinkler system.

Sprinklers may reduce the required fire flow per Fire Code Tables B105.1(1), B105.1(2), and B105.2.

For Residential Code projects, the fire code official shall allow sprinklers as mitigation even if the nearest hydrant does not provide the minimum fire flow.

5) Additions with no increase in required fire flow.

An addition that increases the fire-flow calculation area without increasing the required minimum fire flow per Fire Code Tables B105.1(1) and B105.1(2) does not require mitigation for a nonconforming water supply.

6) Unenclosed Residential Code structures increasing required fire flow.

For Residential Code projects, an addition that is an unenclosed structure subject to Wildland-Urban Interface Code (WUIC) Sections 504.7, 505.7, or 506.6 that increases the existing required fire flow may provide noncombustible exterior facing materials in lieu of other mitigation.

2. Insufficient Fire Apparatus Access Mitigation

A WUIC compliant driveway (WUIC Section 403.2) is still required for Residential Code projects, even when the Fire Code does not require an access road.

(A) Hazards addressed

1) Insufficient fire apparatus access (Fire Code Section 503.1.1)

2) Insufficient WUIC required driveway (WUIC Section 403)

3) Limited access, as part of larger mitigation package (4.3.4.B)

4) Extreme Hazard conditions, as part of larger mitigation package (4.3.4.C)

(B) Mitigation

One or more of the following options may be used to address insufficient access:

1) Provide fire apparatus access road and/or WUIC compliant driveway

2) Upgrade the existing fire apparatus access road and/or driveway

Bring the access route into compliance with current requirements.

3) Fire apparatus access road mitigation using automatic fire sprinklers

- An automatic fire sprinkler system may allow increased distance between a structure and an existing fire apparatus access road under Fire Code Section 503.1.1 exceptions.
- If a structure is exempt from sprinkler requirements by National Fire Protection Association (NFPA) standards, a different mitigation method will be required.
- For WUIC-compliant driveway mitigation, an automatic fire sprinkler system cannot substitute for a required driveway unless approved by the fire code official as part of an Alternative Method of Compliance, Modification, or a broader mitigation package.

4) WUIC Driveway mitigation using Additional Structure Hardening

Where full compliance is not feasible due to site constraints, the fire code official may allow Additional Structure Hardening. A new or improved driveway or fire apparatus access road may also be required, with exceptions based on the documented site constraints.

3. Additional Structure Hardening

Additional structure hardening may be required for an entire structure or a non-complying portion of the structure.

(A) Hazards addressed

1) Limited access (4.3.4.B)

2) Extreme Hazard conditions, as part of larger mitigation package (4.3.4.C)

3) Site Specific Hardship (4.3.4.D)

4) Nonconforming Water Supply, small additions with no increase in required fire flow, (4.3.4.E.1.b.v)

5) Insufficient WUIC Driveway mitigation (4.3.4.E.2.iv)

(B) Mitigation

1) All of the following shall be provided unless exempted by the fire code official based on specific site conditions:

2) All exterior facing building materials including, but not limited to, roof covering, doors, appendages, and window and door frames shall be noncombustible.

3) Dual-pane exterior glazing with tempered interior pane (both panes tempered where required by Building or Residential Code).

4) WUIC Section 603.2.1 EIZ exceptions 2 and 5 are not permitted.

4. Additional Ember Ignition Zone

(A) Hazards addressed

1) Site Specific Hardship (4.3.4.D)

(B) Mitigation

The fire code official may allow one or more of the following options based on site-specific hazards.

1) For Proximity Zone A or Zone B projects, WUIC Section 603.2.1 exception 2 is not permitted.

2) For Proximity Zone C projects, WUIC Section 603.2.1 exceptions 2 and 5 are not permitted.

3) Provide an Ember Ignition Zone surrounding existing structures or additional portions of a structure beyond minimum code requirements.

4) Increase the minimum dimension of the Ember Ignition Zone to 10 feet, around the entirety of the structure, or portions of the structure to address a specific hazard.

5. Defensible space

Mitigation involving the creation or expansion of defensible space will be considered only on a limited, case-by-case basis due to seasonal changes that can quickly reduce defensible space and limitations in monitoring ongoing maintenance.

(A) Hazards addressed

1) Site Specific Hardship, as part of larger mitigation package (4.3.4.D)

(B) Mitigation

1) WUIC Sections 603 Defensible Space and 604 Maintenance of Defensible Space shall be applied to the extent feasible for the site.

2) A vegetation management plan is required per WUIC Section 106.4 and Appendix B. Refer to 4.3.6.

3) Tree maintenance is required and cannot be replaced by other mitigation.

4) If property boundaries extend beyond the required Proximity Zone defensible space distance per WUIC Table 603.2, landscaping selection may be adjusted to improve fire resistance, provided it is supported by permanent mitigation measures such as implementing an EIZ, underbrush clearance, or other site-specific strategies.

6. Alternative Mitigation Measures

(A) Hazards addressed

1) Site Specific Hardship (4.3.4.D)

(B) Mitigation

Alternative mitigation measures may be approved by the fire code official (Fire Code Section 104), if determined appropriate based on the specific site conditions and identified WUI hazards. Proposals that reduce the risk of wildfire damage to a structure and reduce the risk of the structure perpetuating a wildfire may be considered on a case-by-case basis.

## 4.3.5 APPENDIX A GENERAL REQUIREMENTS ~~– RESERVED~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A

A. Vegetation Control at Overhead Electric Lines.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A Sections A102, A104.10

Overhead electric line clearance requirements set forth in the Utilities Criteria Manual Section 1 (Austin Energy Design Criteria) apply to a tree within a defensible space.

B. Access Restrictions.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A Section A103

There shall be no parking in driveways required for Wildland-Urban Interface (WUI) access that obstructs emergency personnel from reaching the site and structures within it.

C. Ignition source control.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A Section A104.

1. Equipment and Devices Generating Heat, Sparks or Open Flames.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A Section A104.5

(A) Includes generators, heaters, welding apparatus or similar equipment

(B) Shall be located 30 feet or greater from grass-, grain-, brush-, or forest-covered areas. The area shall be clear of vegetation with noncombustible ground cover such as gravel or pavement.

(C) Generators: if the site cannot be modified to account for 30' of clearance (e.g. cell tower sites, small properties), a spark arrestor in compliance with United States Department of Agriculture (USDA) Forest Service Specification 5100-1 may be provided. If generator makes use of a turbocharger, plan submittals should include manufacturer spec sheet showing there is no wastegate. If spark arrestor is not the same manufacturer as the generator, plan submittals should include a manufacturer or engineer letter indicating compatibility with installation spec sheet.

2. Outdoor fires, fireplaces, and cooking appliances.

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix A Sections A104.7, A104.8

(A) Includes outdoor firepits, fireplaces, decorative torches, ovens, pizza ovens, cooktops, permanent and portable grills, barbecues, and smokers, and similar equipment.

(B) All appliances must include one of the following: a lid, door, spark arrestor, or spark-arresting screen. These components may be operable but must be built into the equipment or permanently installed.

(C) Spark arrestors are not required for direct vent gas fireplaces that have a fully enclosed firebox with a fixed, non-removable glass front that prevents the use of solid fuels such as wood or food.

(D) All exterior building materials located within 30 feet of the appliance must be noncombustible. Any existing combustible materials, including fences, must be replaced or protected with noncombustible materials. For fences, compliance may alternatively be achieved by meeting the requirements for new fences based on the applicable WUI Proximity Zone.

(E) Vegetation within 30 feet of the appliance must be fire-resistive, see 4.3.9 Fire-Resistive Vegetation. Green, moist, closely mowed grass is also acceptable. Winter dormant grass shall be seeded with a perennial cool weather grass species to maintain the fire resistance during the lawn grass dormant periods.

(F) If a noncombustible wall and ceiling fully separate the appliance from surrounding areas, the fire code official may consider exempting the area behind the barrier based on site-specific hazards.

(G) Exceptions where building material and vegetation modification is not required:

1) Direct Vent fireplaces that are fully enclosed with an inaccessible firebox.

2) Gas lighting or lantern fixtures that are fully enclosed on all sides and listed (e.g., Underwriters Laboratory (UL) or Electrical Testing Laboratories (ETL)).

4.3.6 APPENDIX B VEGETATION MANAGEMENT PLAN ~~– RESERVED~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix B

Where required as part of a hazard mitigation package including defensible space, a vegetation management plan shall be submitted to the fire code official for review and approval as part of the plans required for a permit per WUIC Appendix B Section B101. Refer to 4.3.4.E.5.

The plan shall identify c~~C~~lear areas for fire suppression operations: ~~shall be provided within the defensible space~~. To allow firefighting personnel with hand tools or firehoses access to all sides of the structure, the clear area must be within fifteen (15) feet of structures and appendages; be at least six (6) feet wide (which may include the EIZ); and be at least eight (8) feet in height. Ground cover is allowed in a clear area provided it does not impede reasonable access by a firefighter equipped with a hand tool or ~~firehouse~~firehose.

It is recommended to consult with WUI Plan Review staff in advance of application submittal when providing defensible space to mitigate a hazard.

4.3.7 APPENDIX C FIRE HAZARD SEVERITY FORM ~~– RESERVED~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix C

A usable copy of the form shall be found on Austin Fire's website including additional guidance for completing the form. Refer to 4.3.4 Hazard Mitigation: Extreme Hazard, Limited Access, and Site Specific Hardship for further information.

4.3.8 APPENDIX D FUEL MODELS ~~FIRE DANGER RATING SYSTEM- RESERVED~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Appendix D

4.3.9 FIRE-RESISTIVE VEGETATION

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 106.6, 202, 603, 604, Appendix A, Appendix B

Guidelines for fire-resistive vegetation.

A. All plants will burn under extreme fire weather conditions, such as drought. However, plants burn at different rates of consumption. Fire resistive plants burn at relatively low rates making for better alternatives when planting in the Wildland-Urban Interface (WUI).

B. The Austin Fire WUI Vegetation Guide may be consulted for plant selection and further detail on characteristics of fire-resistive vegetation.

C. ~~Qualified a~~Arborists with the Texas Wildfire Risk Reduction qualification or other qualified professionals ~~should~~ can be consulted for guidance on tree maintenance within the Wildland-Urban Interface~~. to support adequate minimum clearance distances or for consideration to deviate from the minimum.~~

SECTION 5 HAZARDUS MATERIALS

## 5.1.0 ADMINISTRATIVE

### 5.1.1 GENERAL

(See Section ~~2701.1~~ 5001.1.2 of the International Fire Code as amended.)

A. The Hazardous Material Storage and Registration Ordinance as incorporated into the ~~2003~~ 2024 edition of the International Fire Code as Chapter 50, “Hazardous Materials-General Provisions,” addresses facilities which handle and store those materials determined to be hazardous in accordance with the parameters outlined in the Fire Code. The Fire Code specifies that a hazardous materials permit shall be obtained if a facility stores over a predetermined limit of either toxic, flammable or reactive materials in either of the three (3) physical states of matter: solid, liquid or gas.

B. Chapter 50 titled “Hazardous Materials-General Provisions,” and Chapters 51 through 67, which address specific hazardous materials, were developed to address the hazards of hazardous material storage and the potential for accidental release of and emergency responder exposure to same.

C. Where no specifications or guidelines are presented in this manual or the Fire Code, the standards contained in the National Fire Codes, ~~2013 Edition~~ as published by the National Fire Protection Association (NFPA), will be followed

## 5.2.0 GENERAL PERMIT REQUIREMENTS

### 5.2.1 Permit Applications

(See Section 5001.7 of the International Fire Code Amendments as contained in Appendix F of this Manual.)

### 5.2.2 Permit Procedures

All persons shall obtain and maintain a hazardous material storage permit or short form hazardous materials permit from ~~the~~ Austin Fire ~~Department~~ prior to and while handling or storing any material(s) regulated by this Article. Permit application forms are available from the Hazardous Materials Section of the ~~Fire Department~~ Austin Fire Marshal’s Office website.

### 5.2.3 Materials Regulated

(See Section 105.6 of the International Fire Code Amendments as contained in Appendix F of this Manual.)

### 5.2.4 Materials Not Regulated

(See Section 105.6 of the International Fire Code Amendments as contained in Appendix F of this Manual.)

### 5.2.5 Storage Permit Applications

(See Appendix C of this Manual)

### 5.2.6 Permit Transfers

(See Section 5001.7 of the International Fire Code Amendments as contained in Appendix F of this Manual.)

A. Change of Ownership-Same Location.

The transfer of a hazardous materials storage permit will require the completion of the transfer forms signed by the buyer and seller of the permitted facility. Permit transfers are for the transfer of ownership of the permitted facility based on the nature of the pre-existing operations and materials stored. Significant changes in operations and/or storage will require a new permit.

B. Change of Location-Same Owner.

The transfer of a pre-existing permit to a new location requires notification of ~~the~~ Austin Fire ~~Department~~ as to the new location and the submittal of revised facility maps and inventories as required.

Transfer forms are available ~~at the Fire Department, Engineering Services Section Office, 505 Barton Springs RD, Suite 200.~~ upon request by emailing afdhazmat@austintexas.gov

. ~~5.2.7 Materials Management Plan Amendments~~

~~(Section Deleted)~~

5.2.~~8~~7 Contingency Plans

(See Sections 5001.5.1 and 5003.9.1 of the International Fire Code)

A. The permit applicant shall develop a contingency plan for the facility which describes the planned response procedures to be followed by facility personnel in the event of fires, explosions or unauthorized release of hazardous materials. One (1) or more copies will be available at all times at the facility and one (1) copy will be submitted with the permit application. The contingency plan shall contain, at a minimum, the following elements:

1. The names and emergency telephone numbers of the primary and secondary emergency coordinators designated for the facility.
2. A list of emergency telephone numbers to be used in the event of an emergency to include outside response agencies.
3. An evacuation plan for the facility describing the signals to be used by facility personnel.
4. A hazardous material spill containment/cleanup plan.
5. The name, address and telephone number of at least one (1) contractor capable of handling the spilled material.

B. The contingency plan should be reviewed and revised whenever:

1. The facility or operations are significantly changed resulting in increased potential for fire, explosions or material releases;
2. Designated personnel or phone numbers change;
3. Response plans are changed;
4. The designated contractor is changed; or
5. The plan fails in an emergency.

5.2.~~9~~8 Closure Plan

(Fire Code Section 5001.6)

A. The closure plan shall describe the procedures that will be taken to terminate the bulk storage of hazardous materials at the facility in the event that:

1. The site is found to be uncontaminated and no clean up will be required; or
2. The site has some contamination but can be shown to not require any cleanup; or
3. The site has significant contamination and remedial action will be required to decontaminate the site.

B. An updated closure plan is to be submitted 30 days prior to the closure if any provisions of the original closure plan have been changed.

5.3.0 HAZARDOUS MATERIALS RULES

A. Rules made by the City of Austin for the Fire Code and WUI Code will be contained within this section. The purpose of this section is to outline the rules issued by the City of Austin pertaining to specific codes, standards and amendments. Such rules are promulgated to administer and implement the Fire Code and WUI Code.

B. Rules reference appropriate International Code sections or other adopted standards. Rules are in the same order as the referenced sections. ~~Source: Rule No. R161-21.05, 3-22-2021.~~

CITY OF AUSTIN FIRE PROTECTION RULE HM1

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.6.2220 HAZARDOUS MATERIALS RATING

The Fire Chief will verify the ratings upon review or request of the special event structure by the permit applicant. In those situations where the material has two (2) numeric ratings for the same hazard classification, the higher numeric rating will be used.

CITY OF AUSTIN FIRE PROTECTION RULE HM2

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.6.2220 DETERMINING HAZARD RATINGS

For the purpose of a Hazardous Materials Permit, all hazardous materials are categorized into the three (3) hazard classes

-Toxicity (or Health)
-Flammability
-Reactivity

Within each hazard class the materials will be assigned a hazard rating from 0 to 4 according to the criteria given in Appendix F of the 2012 2024 International Fire Code as amended. The hazard rating process requires an inventory of hazardous materials stored at the site. The inventory should include:

1. The location of the chemical,
2. The chemical or product name
3. The amount being stored

When documenting the name of the chemical, it is important to include its concentration when the chemical is in solution. The concentration of the chemical may influence how the chemical is categorized and its exempt amount. For example, a solution of 10% ethyl alcohol / 90% water is assigned a Flammable “2” rating; A solution of 20% ethyl alcohol / 80% water is assigned a Flammable “3” rating. The chemical's classification can also be affected by gas mixtures. For example, a compressed gas cylinder containing 1% hydrogen / 99% argon is not required to be included in an inventory because it is not flammable; a cylinder containing 10% hydrogen / 90% argon would be included since the mixture is flammable. The quantity of material being stored is required to be identified in pounds, gallons or cubic feet at normal temperature and pressure. For containers with volumes measured using metric values, conversion factors are available from the Fire Department. The Fire Department also maintains specific volumes for liquefied gases, e.g., chlorine, refrigerant gases, ammonia, propane.

Identifying materials that should be included in the permit application is accomplished by reviewing packaging markings and Material Safety Data Sheets (MSDSs). U.S. Department of Transportation (DOT) markings are directly affixed to the container or package. The marking may include an identification number or a placard that identifies the primary hazard of the chemical. In the case of pesticides, paints & coatings and other consumer commodities, packages are commonly marked with the hazard phrases like, “CAUTION,” “WARNING,” or “EXTREMELY FLAMMABLE.” The following table summarizes the respective hazard ratings based on the hazard phrases.

| *Health Hazard Commodity Label* | *Hazard Rating* | *Flammable 1-Hazard Commodity Label* | *Hazard Rating* |
|---|---|---|---|
| **DANGER, Poison** N<br>*Fatal if Swallowed (Inhaled or absorbed)*<br>Corrosive, causes eye & skin damage [ LD50 < 50mg/Kg ] | **4** | **EXTREMELY FLAMMABLE**<br>*Keep away from Fire, Sparks & Heated Surfaces*<br>[ Class I-A Flammable Liquids or classified by DOT as FLAMMABLE GAS j | 4 |

| | | | |
|---|---|---|---|
| **DANGER, Poison** N<br>*Fatal if Swallowed (Inhaled or absorbed)*<br>Corrosive, causes eye & skin damage [ LD50 < 50mg/Kg ] | **3** | **FLAMMABLE**<br>*Keep away from Heat or Open Flame*<br>[Class I-B & I-C Flammable Liquids] | 3 |
| **WARNING**<br>*May be Fatal is Swallowed (inhaled or absorbed)*<br>Corrosive, causes eye & skin irritation [ LD50: 50 mg/Kg to 500 mg/Kg ] | **2** | **COMBUSTIBLE**<br>*Do not store or use near open Flame* [ Class II and III-A Combustible Liquids ] | 2 |
| **CAUTION**<br>*Harmful is Swallowed (inhaled or absorbed)*<br>Avoid contact with Skin, Eyes or Clothing [ LD50: 500 mg/Kg to 5,000 mg/Kg ] | 1 | | |

At locations where multiple chemicals are stored it is acceptable to report aggregate quantities. Rather than identify the quantity, physical state and hazard category for each chemical, ~~the~~ Austin Fire ~~Department~~ will allow the permit applicant to group the chemicals based on physical state, hazard class and hazard ratings. Consider a laboratory using a variety of flammable liquids, flammable gases, health liquids and reactive solids. The lab uses seven different grades of flammable gases. All of the gases have limited health and reactivity hazards. Rather than identifying the quantity and grade of each particular grade, the permit applicant can sum the total quantity of flammable gases in the laboratory. Caution is advised when using this type of reporting; some chemicals exhibit multiple hazards. For example, methyltrichlorosilane is assigned the ratings, Health -3; Flammable - 3; Reactivity - 3; Special Hazards - Water Reactive & Corrosive. Because the hazard rating is equal to or greater than “2" in all three hazard categories, the chemical should be specifically identified in the inventory.

If ~~the~~ Austin Fire ~~Department~~ is requested to classify the chemical, the permit applicant must supply the MSDSs for all of the products and the quantity proposed for storage and use. ~~The~~ Austin Fire ~~Department~~ will return the MSDSs to the permit applicant upon request.

CITY OF AUSTIN FIRE PROTECTION RULE HM3

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.6.22~~20~~ HAZARDOUS MATERIAL RATING PROCEDURE

The City of Austin has adopted NFPA Standard 704 as the rating system in determining the health, flammability and reactivity hazards of chemicals for the purpose of issuing hazardous materials permits. NFPA 704 is a system that numerically indicates to Fire Department Personnel the relative hazard of a chemical when it is subjected to fire conditions.

~~The~~ Austin Fire ~~Department~~ recommends the following procedure be utilized to determine hazard ratings:

1. Review the NFPA Fire Protection Handbook if the material in question is rated by in this reference book.
2. If the material in question is not included in the NFPA Fire Protection Handbook, refer to the Material Safety Data Sheet(s) to determine whether the MSDS contains an NFPA 704 or HMIS rating.
3. In the case where ratings are not provided by the NFPA Fire Protection Handbook, or the Material Safety Data Sheet(s), review the MSDS to determine the material's UN Identification Number, DOT Hazard Classification, flash point, boiling point, pH, LC50, LD50, and reactivity data. This information is necessary for proper classification of the chemical. If the MSDS does not contain the information, it should be requested from the manufacturer. Once the information is compiled,

classify the chemical in question. Acceptable information sources include but may not be limited to:

a. Sax Handbook of Dangerous Chemicals
b. Bretherick's Handbook of Reactive Chemical Hazards
c. NIOSH Pocket Guide to Chemical Hazards
d. Hazardous Materials Classification Guide
e. MSDS searches via the Internet

CITY OF AUSTIN FIRE PROTECTION RULE HM4

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 401.3.4

Facilities with on-site emergency response teams (ERT's) or fire brigades- compliant with the requirements of the U.S. Occupational Safety and Health Administration (OSHA) as promulgated in Title 29, Code of Federal Regulations, Part 1910.120 and/or Subpart L - may develop emergency reporting procedures based in part on ERT/Fire Brigade staffing, qualifications, and equipment. Such procedures shall be submitted to the Fire Department for review and approval and such facilities shall be audited by the Fire Department to verify readiness of the ERT/Fire Brigade.

~~The~~ Austin Fire ~~Department~~ review and audit shall address the following areas and issues.

1. The facility shall develop and submit procedures which clearly outline the conditions for reporting to the Austin Fire Department. These conditions shall include any situation which presents or could present a threat to the environment and any situation which results in an injury requiring medical attention or in death. The reporting procedure shall comply with the reporting requirements of State and/or Federal regulations. In addition, all fires (including those extinguished by a Fire Brigade) shall be reported to the Fire Department at the time of occurrence.
2. The facility shall make available to the Fire Department all records pertaining to the training and qualifications of the ERT/Fire Brigade. Personnel may be identified by employee number in medical and training records for the sake of privacy. Sufficient information shall be provided to demonstrate the scope and completeness of facility training and medical surveillance programs.
3. The facility shall provide the training curriculum for the ERT/Fire Brigade for evaluation by the Fire Department. Such information may be classified as “Confidential”.
4. The facility shall provide the qualifications of instructors used in the ERT/Fire Brigade training program.
5. The facility shall make available to the Fire Department complete spill and release logs (including those not required to be required to be reported). Copies of requested records for specific responses shall be provided for Fire Department records. ERT/Fire Brigade logs shall include the information required by 29CR1910.120(c)(3) to be available prior to site entry (i.e. location and approximate size of the affected area, description of the response activity, duration of employee activity, hazardous substance name and physical state, and a list of mitigation and personal protective equipment used). Proprietary chemicals may be referred to by chemical class, and proprietary processes may be omitted. ERT/Fire Brigade personnel may be identified by employee number. Annually, generally during scheduled inspections, the facility shall provide updated lists of mitigation and personal protective equipment provided and maintained for use during spill incidents.
6. The facility shall conduct drills of the ERT/Fire Brigade at least once every three months. At least once per year, the facility shall request the Austin Fire Department units participate in a drill Personnel on a shift ERT/Fire Brigade shall be required to participate in at least one drill per year. Also refer to IFC sections 1803.4 and 408.4 for semiconductor fabrication facilities. If the shift ERT/Fire Brigade has participated in an actual response within the previous three months, the response may be considered to fulfill the drill requirement if a post incident critique is held which covers written training objectives developed as a result of lessons learned.
7. In accordance with Section 104.11 of the Fire Code, the Austin Fire Department maintains its full authority concerning fires and other emergencies. Inappropriate actions by an ERT or Fire Brigade may result in denial, revocation, or revision of the Fire Department's approval of a facility's reporting procedure.

~~The~~ Austin Fire ~~Department~~ shall consider the level of training, equipment, and complexity of drills in reviewing reporting procedures. For example, to relax reporting requirements for acid spills, a facility shall demonstrate that the ERT/Fire Brigade has the training and equipment to safety mitigate spills involving the types and quantities of acids indicated in the procedure.

CITY OF AUSTIN FIRE PROTECTION RULE HM5

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 608.2~~606.1~~

Any installation that remains at a single location for more than 30 days is considered “permanent” in accordance with IFC section 105.6.20.7. For an installation to be considered “portable”, the quantity of refrigerant must be less than the exempt amount and the equipment must be designed to be transported.

CITY OF AUSTIN FIRE PROTECTION RULE HM6

International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 401.3.1, and 608.15 ~~606.13, and 2703.3.1~~

Incidental discharges of refrigerants that are “Extremely Hazardous Substances” as defined in Chapters 505-507 of the Texas Community Right-to Know Acts shall be immediately reported to ~~the~~ Austin Fire ~~Department~~. For anhydrous ammonia (R-717), the reportable quantity is 100 pounds.

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 2403.5~~

~~In order to appropriately address the hazards associated with the mixing of automotive related paint finishes in areas outside of the approved mixing, use and dispensing rooms, and alternative paint kitchen facility may be used provided it satisfies the following:~~

~~1. The paint kitchen shall provide 5 foot, 9 inch walls of noncombustible construction on three sides.~~

~~2. All electrical fixtures and appliances inside and within 3 feet of the enclosure shall meet the National Electrical Code requirements of Class I, Division 2 locations.~~
~~3. Mechanical ventilation shall be provided at the work surface and will provide a volume sufficient to maintain the paint kitchen atmosphere at a level equal to or less than 25 percent of the lower explosive limit of the most volatile material being used. Quantities of flammable or combustible liquids allowed at the paint kitchen shall not exceed the values set forth in the International Fire Code, Section 5705.3.5.~~
~~4. All interior surfaces of the paint kitchen shall be cleanable.~~

CITY OF AUSTIN FIRE PROTECTION RULE HM7

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5001.5

The Combined Report Form resulting from the cooperative agreement between ~~the~~ Austin Fire ~~Department~~ and the Local Emergency Planning Committee will be accepted as an alternative inventory submittal in meeting the permit application submittal under this section for both the long and short form Hazardous Materials Permit applications.

CITY OF AUSTIN FIRE PROTECTION RULE HM8

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.5.22.7.3 ~~105.6.20.7.3~~ and 5001.5

A transportation vehicle, such as a bulk tanker, is no longer considered a transportation vehicle when it is used to store hazardous materials and remains in one (1) location (or construction site) for over 30 days.

CITY OF AUSTIN FIRE PROTECTION RULE HM9

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5003.3

Recording/Reporting Procedures

Section 5003.3 For reporting requirements, see Chapter 4.

CITY OF AUSTIN FIRE PROTECTION RULE HM10

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5004.2

SECONDARY CONTAINMENT

Secondary containment systems shall be compatible with the environment in which they are installed for the projected life of the systems and must be compatible with the contents of the primary container(s) for the amount of time they would reasonably be expected to contain the material between the time a leak would be detected and when clean-up operations would occur.

Systems for secondary containment for tanks, other than for double-walled tanks, will require engineered designs. The design submittals shall be stamped by one (1) or more professional engineers registered by the State of Texas, attesting to the structural soundness of the systems, the compatibility of the construction materials with the environment and the stored materials, the corrosion protection afforded by the design and the soundness of any hydrogeologic design elements. These systems shall be installed according to the manufacturer's and/or engineer's specifications.

Where one (1) primary container is installed in a storage facility, the secondary containment must be capable of containing 110 percent of the stored volume. Where multiple primary containers are installed in a facility, the secondary containment must be sized to contain 150 percent of the volume of the largest container placed in it or 50 percent of the aggregate volume of all primary containers, whichever is greater. If the storage facility is open to rainfall, the secondary containment must also accommodate the volume of water created by a ten (10) inch rainfall in a 24-hour period. In making calculations to size the secondary containment, the portion of the material that would remain in the primary container, in the event of a leak, may be included in the 110 percent. In calculating the size of the secondary containment, the portion of the material that would remain in the largest. primary container, in the event it leaked, may be included in the secondary containment volume. However, the volume of the secondary containment displaced by the other tanks and any tank supports shall be taken into consideration in the calculations.

Example 1: Two (2) 10,000 gallon tanks are stored above ground in an approved coated concrete diked area. The storage facility is covered so that rainfall cannot accumulate within the diked area.

How much volume must the secondary containment, diked area, hold?
From the volume requirements for secondary containment,

Case 1: 150 percent of the volume of the largest primary container Required Volume = 10,000 x (1.50) = 15,000 gallons

Case 2: 50 percent of the aggregate internal volume of all primary containers Required Volume = 20,000 x (.50) = 10,000 gallons

Use Case 1, since it is more.

Therefore, the volume of the diked area must be able to contain at least 15,000 gallons or 2,005 cubic feet after the saddles and tanks are in place.

The following City of Austin Standards deal with secondary containment. 901S-7, 901S-8, 901-9, 901-10, and 901-11. (See the City of Austin Standards Manual to view these illustrations.)

CITY OF AUSTIN FIRE PROTECTION RULE HM11

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5004.2

DRAINAGE AND SUMPAGE REMOVAL

Drainage of precipitation, sumpage and fire suppression liquids from within a storage facility containing hazardous materials which are liquids or solids at STP shall be controlled in a manner, in accordance with the requirements of the Fire Code, so as to prevent hazardous materials from being discharged to the environment. No drainage or sumpage removal system will be approved unless the flow of the liquid can be controlled.

Facilities should be designed to prevent direct rainfall from entering hazardous materials storage areas. Any precipitation that does fall into such areas should be considered as being contaminated until proven otherwise and therefore must be collected and held for treatment or proper disposal. Sumpage, such as condensation water in tanks and water in secondary containment areas, from run-off or percolation as well as liquids such as water or foams from sprinklers and fire fighting activities, must be collected and handled accordingly.

Drainage of liquids other than sumpage from storage area can be achieved by containment in the storage area itself. A trench or sump system in the floor of the storage area which is constructed to meet NFPA 400 Section 6.2.1.9.2 and meets the required holding capacity is acceptable. A drainage system that conducts the material to a remote storage tank or diked area which is protected from damage and is accessible during a fire emergency is designed to minimize the potential for fire spread is also acceptable. A system equipped with an approved interceptor/separator capable of restricting the flow of the hazardous material may be allowed to discharge into a storm or sanitary sewer subject to approval by ~~the Planning and~~ Austin Development Services ~~Review Department~~. The required holding capacity design parameters mentioned above can be found in Section 5004.2 of the Fire Code.

CITY OF AUSTIN FIRE PROTECTION RULE HM12

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5004.2

The following parameters shall be evaluated when calculating secondary containment requirements with regards to automatic sprinkler systems:

1. The design area system demand;
2. Except in the case where hazardous materials are stored in a high-rack or high-piled configuration, hose stream demand need not to be included in the calculation of secondary containment capacities.

CITY OF AUSTIN FIRE PROTECTION RULE HM13

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5505.4

A liquefied natural gas installation design compliant with NFPA 52, Vehicular Gaseous Fuel Systems Code, 2023~~2010~~ Edition, may not be acceptable to ~~the~~ Austin Fire ~~Department~~. Engineering design considerations should include:

1. Vapor dispersion, jet fire and overpressure calculations, based on the release of cryogenic fluid from the container, to demonstrate that an accident at the site will pose little or no off-site consequences.
2. The use of insulated concrete for the foundation and containment walls.
3. The use of valves which close upon loss of pneumatic or electric energy.
4. A review of the design using fault tree analysis and probabilistic risk assessment.

In addition to the requirements in Chapter 55, ~~the~~ Austin Fire ~~Department~~ will also apply the requirements of NFPA 55, Compressed Gases and Cryogenic Fluids Code, 2023~~2010~~ Edition for liquid oxygen and liquefied hydrogen system installations. Inert cryogenic installations shall be in accordance with Compressed Gas Association Standard P18-9, Bulk Gas Installations at Consumer Sites.

CITY OF AUSTIN FIRE PROTECTION RULE HM14

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5601.2 and 5601.2.7

Blasting Permits

To obtain blasting permits contact ~~the~~ Austin Transportation and Public Works ~~Department~~. Permits will not be granted unless approval is forthcoming from utilities (see Routing Slip), all fees paid, and all pertinent information is included on the permit application.

Permits shall be secured at least 24 hours in advance of blasting operations. No blasting shall take place before an inspector is on site.

CITY OF AUSTIN FIRE PROTECTION RULE HM15

International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 5601.2.4

Prior to the Fire Department's issuance of a permit for fireworks or pyrotechnic displays, pyrotechnic operators shall furnish a corporate surety bond or a certificate of public liability insurance in an amount as outlined below. The City of Austin shall be included as an additional insured in such public liability insurance policies.

When the permit request includes the use of aerial ~~devices or Class B~~ fireworks, the minimum insurance/bond amounts shall be $1,000,000 for personal injury and $500,000 for property protection. If the permit is limited to non-aerial ~~Class C~~ fireworks, the minimum insurance/bond amounts shall $500,000 for personal injury and $300,000 for property protection.

CITY OF AUSTIN FIRE PROTECTION RULE HM16

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section ~~Article~~ 5607 ~~Use and Handling of Explosives~~ Notification

Pre-blast inspections will be performed on all permitted work prior to initiation of any blasting activity. There will be pre-blast notification made to owners or managers of all affected premises. The range of this notification shall be as described in the permit.

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 5601.9 Licenses~~
~~All persons engaging in the use of explosives must meet specific licensing requirements found in Section 5601.9 of the Fire Code. The City of Austin will require five (5) working days to approve/deny all license requests. Blasting licenses are valid for one (1) year and may be renewed each year thereafter upon presentation of a new license application, presentation of credible documentary proof that the license holder has been actively engaged in blasting operations the preceding year, payment of the license fee, and successful verification of background by the City of Austin Police Department. If the blaster is unable to provide satisfactory documentary proof of blasting activities during the previous year, the applicant may retest for the class of blasting license requested.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section Article 5607 Use and Handling of Explosives~~
~~Pre-blast inspections will be performed on all permitted work prior to initiation of any blasting activity. There will be pre-blast notification made to owners or managers of all affected premises. The range of this notification shall be as described in the permit.~~

CITY OF AUSTIN FIRE PROTECTION RULE HM17

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 6104.2

Siting of liquefied petroleum gas (LPG) storage in excess of 2,000-gallon capacity shall be reviewed in accordance with the criteria for performance-based design as detailed in IFC section 5001.3. As a minimum, the evaluation of potential sites for large (»1,000 gallon water capacity) propane tanks shall address the following subsections of 5001.3.

| | |
|---|---|
| 5001.3.3 | Performance requirements |
| 5001.3.3.2 | Reliability of equipment and operations. |
| 5001.3.3.3 | Prevention of unintentional reaction or release. |
| 5001.3.3.5 | Ignition hazards. |
| 5001.3.3.6 | Protection of hazardous materials. |
| 5001.3.3.7 | Exposure hazards. |

5001.3.3.11 Process hazard analyses.
5001.3.3.13 Operating and emergency procedures.
5001.3.3.15 Emergency response plan.
5001.3.3.17 Consequence analysis.

CITY OF AUSTIN FIRE PROTECTION RULE HM18

International Fire Code (LDC Chapter 25-12, Article 7), Reference Chapter 80

For Information on discharges or emissions regulated by the Texas Commission on Environmental Quality (TCEQ), contact:

Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Texas Commission on Environmental Quality Regulations
30 TAC (Texas Administrative Code)

SECTION 6 FIRE PROTECTION SYSTEMS

6.1.0 ADMINISTRATIVE

~~RESERVED~~

6.1.1 Submittal Requirements

A. An electronic set of plans must be submitted in a vector-based PDF format (direct plot from CAD) for review and approval by Austin Fire. The file must be unlocked and have no security restrictions.

B. The applicable City of Austin building permit tracking number shall be provided on the plans. This may be either the plan review tracking number (PR number) or the building permit number (BP number).

C. Plan review submission information can be found on the Austin Fire Marshal's Office website. Sections 6.2.0 through Section 6.6.0 outline additional requirements.

D. All fire protection systems must comply with the submittal requirements of the applicable NFPA standard for which they are designed. Sections 6.2.0 through Section 6.6.0 outline additional requirements.

E. Plans shall be prepared and printed at scale, and on a page size, sufficient to ensure clear legibility for the Austin Fire Inspector during on-site review.

6.2.0 FIRE SUPPRESSION SYSTEMS SUBMITTAL REQUIREMENTS

6.2.1 Automatic Sprinkler Systems

~~A. Inspections are required for all construction projects involving the installation or modification of fire sprinkler systems regardless of the number of sprinklers or devices involved. The Austin Fire Department, Emergency Prevention Division, shall use the following criteria for the submittal of automatic sprinkler shop drawings for tenant finish-out projects.~~

~~1. Light or ordinary hazard sprinkler systems: Shop drawings shall be submitted as required in paragraph C below, for all new systems, and when more than twenty (20) sprinklers total are added, relocated and/or deleted.~~

~~2. Extra hazard sprinkler systems: Shop drawings shall be submitted as required in paragraph C below, for all new systems, and when more than ten (10) sprinklers total are added, relocated and/or deleted.~~

~~B. Documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at http://www.austintexas.gov/department/afd-plans-review~~

~~C. For projects that do not require shop drawings, a letter from the installing contractor shall be submitted to the Austin Fire Department with the following information:~~

~~1. The current date.~~

~~2. The installing contractor's name, address, telephone number, and State of Texas license number.~~

~~3. The project name and address.~~

~~4. The number of sprinklers relocated, the number of sprinklers added, and the number of sprinklers plugged.~~

~~5. A statement indicating or acknowledging that all work and materials shall comply with the requirements of NFPA 13.~~

~~6. The letter must be signed by the R.M.E. for acceptance by the Austin Fire Department. The Austin Fire Department retains the right to request, review, and comment upon plans if deemed necessary.~~

~~D. Plans shall continue to be submitted for all new projects and for all projects involving any automatic sprinkler system alterations in occupancies defined as Assembly, Educational, or Institutional by the 2012 International Fire Code. Plans shall also be submitted for changes in the occupancy's use which require the redefinition of automatic sprinkler design/hazard classifications, application area, or design density. Any sprinkler system alteration which includes a change of occupancy shall also require plans submittal.~~

A. An electronic set of plans showing the following~~:~~

1. A brief description of the scope of work must be on the plan cover sheet or first plan sheet.

2. All areas within and outside the scope of work shall be clearly defined on the plans with hatching, bold outlines, etc. Match-lines and a site key map must be used for all large or complex buildings to help the reviewer understand how the building areas are divided up on each sheet.

3. For NFPA 13D systems, place the following note on the cover sheet of the plans that indicates the flow rate (gpm) and pressure (psi) at the riser system gauge at the top of the riser that is required for the NFPA 13D system to work properly as designed and verified during bucket testing:

   "Required system flow rate at the top of rise gauge is XX gpm at XXpsi"

B. Calculations shall be provided for review and approval by Austin Fire and shall include the following:

1. An electronic copy of the AFD hydrant flow test that is less than 1 year old from the time a set of plans are submitted to Austin Fire. The test must support the pressures used in any associated hydraulic calculations.

6.2.2 Alternatives to Full Plan Submittals for Automatic Sprinkler Systems

A. A plan review submittal is not required for sprinkler system modifications that meet the following requirements below. Projects must comply with all conditions below to forgo plan review submittal:

1. For Light or ordinary hazard sprinkler systems: Alteration or additions that consist of 20 sprinklers or less and all floor areas were protected prior to the alteration. The number of sprinklers is based on the entire project, this includes multiple BPs.

2. For Extra hazard sprinkler systems, High-Piled Combustible Storage, and/or Special Sprinklers: Alteration or additions that consist of 10 sprinklers or less and all floor areas were protected prior to the alteration. The number of sprinklers is based on the entire project, this includes multiple BPs.

3. Any project involving automatic sprinkler system alteration in occupancy classification other than Assembly, Educational, or Institutional per IBC Chapter 3. Alterations within Assembly, Educational, or Institutional require plan review submittal.

4. Changes in the occupancy's use which does not require the redefinition of automatic sprinkler design/hazard classifications, application area. First time tenant finish outs require a plan review submittal.

5. Any sprinkler system alteration which does not include a change of occupancy per IEBC Chapter 10.

6. The addition of no more than one flexible hose that has an equivalent length per the manufacture data sheets and require hydraulic calculation per 2024 IFC, 903.3.10 (local amend).

B. For projects that do not require plan review submittal, a work letter and plans from the installing contractor shall be presented to the Austin Fire inspector during the inspection. The work letter shall have the following information:

1. The current date.

2. The installing contractor's name, address, telephone number, and Sprinkler Certificate of Registration (SCR number.

3. The project name and address.

4. The number of sprinklers relocated, added, and plugged. Clearly indicated the quantity for each type.

5. A statement indicating or acknowledging that all work and materials shall comply with the requirements of the latest edition of NFPA 13.

6. The letter must be signed by the RME for acceptance by the Austin Fire.

7. A simple drawing showing the floor plan of the scope of work and clearly identify the sprinkler heads affected.

~~E. Submittal of appropriate documentation for either new or remodeled systems and the Austin Fire Department's approval of applicable drawings/calculations shall be required prior to installation of fire detection, alarm, or suppression systems. Waiver of prior approval shall be at the discretion of the Austin Fire Department and must be documented by written correspondence from the Austin Fire Department.~~

~~F. Sprinkler system shop drawings shall be reviewed prior to system installation. Sprinkler plans must be drawn in 1/8" scale or larger, t›nless other wise approved by the Austin Fire Department Engineering Services Section. For a review to take place, the following information shall be submitted to the City of Austin Fire Department~~

~~1. A minimum of two (2) complete sets of contractor's plans/prints showing all the information specified in Chapter 8 of NFPA 13, 2013 edition plus the following information:~~

~~(A) Type and location of all alarm and supervisory devices and associated equipment.~~

~~(B) Capacity (in gallons) of each dry-pipe system.~~

~~(C) Type, wall thickness and pressure rating of all pipe.~~

~~(D) Type and pressure ratings of all fittings.~~

~~(E) Size, location and arrangement, and type of threads for all hose, hose connections and related equipment.~~

~~(F) Provisions for flushing.~~

~~(G) When the equipment is to be installed as an addition to an existing system, enough of the existing system shall be indicated on the plans to make all conditions clear.~~

~~(H) Location and description of any nonfire protection related connection to the system.~~

~~(I) Type, location and arrangement of all fire department inlet connections and associated equipment.~~

~~(J) Type, location and arrangement of any fire pump and all related equipment.~~

~~(K) Hydraulic calculation reference points clearly shown on drawings.~~

~~(L) Type, number and location of spare sprinklers and wrench.~~

~~(M) The total number of each type of sprinkler on each floor.~~

~~(N) Storage type, size and location including all specific information regarding the storage arrangement (i.e., dimensions/ type of racks or piles, etc.).~~

~~(O) City of Austin building permit related tracking number. This can be the plan review tracking number (PR number) or the building permit number (BP number).~~

~~G. Hydraulic Calculations. For hydraulically designed systems, provide a complete set of detailed hydraulic calculations. For pipe scheduled systems, provide calculations to justify adequate flow/pressure to operate the sprinkler system (see the Fire Protection Criteria Manual for a copy of the approved hand calculation data sheet to be utilized).~~

H. Automatic Sprinkler systems shall be designed in accordance with the latest locally adopted editions of the NFPA 13, International Building Code, International Fire Code, and any applicable local amendments and rules.

6.2.23 Standpipe Systems

The need for and design basis for standpipe systems will be required to be identified at the time of Building Permit review. Standpipe systems and fire hose systems will be reviewed in their entirety prior to system installation. For this complete review to take place, , In addition to the requirements of the currently adopted version of NFPA 14 the following information shall be included:

A. A brief description of the method of design. For example, use of pipe schedules (acceptable for renovating existing schedule systems) versus hydraulic design (required for all new systems and systems previously calculated).

B. At least 2 completed sets of plans/prints (1 for AFD's records) An electronic set of plans showing the following:

1. Architectural details of building (wells, doors, partitions, corridors, etc.) including stair sections showing location of standpipes, hose valves, floor control valves & isolation valves
2. Size, arrangements, types, threads and location of all hose valves and reducers
3. Type and location of all alarm and supervisory devices and associated equipment
4. Type, schedule of wall thickness and pPressure rating of all pipe and fittings
5. Nominal pipe size as well as cut lengths or center to center lengths of pipe (indicate type)
6. Type and pressure ratings of all fittings and joints as well as the location of all welds and bends
7. Type and location of all hangers and sleeves as well as any additional pipe supports
8. Types, sizes, lLocation and arrangement of all control valves, check valves, drain pipes, test pipes and drains including termination points of drains
9. For automatic and semi-automatic standpipes Uunderground pipe size, length, material, schedule, point of connection to the City or private water main, type and location of all valves, meters, backflow prevention assemblies, valve pits and the depth of the top of the pipe below grade
10. Fire Department connection type, location, arrangement, size, number of inlets, threads, support, check valve and drainage provided
11. If provided, Tthree-way roof manifold type, location, arrangement, size, threads, freeze protection and drainage provided
12. Size, location and arrangement of pressure gauges
13. Hose rack/reel type, location, size and arrangement
14. Nozzle size, threads, type and location

135. If required, Ggravity tank/pressure tank size, construction, location, type and arrangement

146. If provided, Ttype, location and arrangement of any fire pump and all related equipment

157. Location and description of floor control valves or any other fire protection system connection

168. Hydraulic calculation reference nodes clearly shown, if applicable

179. Location, type and arrangement of fire resistive barriers for the risers and laterals Class I and III standpipes

20. City of Austin building permit related tracking number. This can be the plan review tracking number (PR number) or the building permit number (BP number).

~~C. Water Supply Information. Provide all available water supply data including a graph which compares the system demand to the available supply. Information shall be included on the size of the City or district water main(s) and whether the main(s) is/are a dead-end or circulating type. If the main(s) is/are a dead-end type, provide the distance to the nearest connected circulating main and the size of that circulating main. Also describe in detail any other source of water supply. All water flow test data shall be shown on the plans and shall include the following information:~~

~~1. Location and elevation of static and residual test gauge with relation to the project reference point.~~

~~2. Flow location.~~

~~3. Static pressure, (pounds per square inch)~~

~~4. Residual pressure, (pounds per square inch).~~

~~5. Pitot pressure, (pounds per square inch).~~

~~6. Flow, (gallons per minute).~~

~~7. Date.~~

~~8. Time.~~

~~9. Test conducted by.~~

~~10. List of equipment utilized in test.~~

~~11. Number, size and roughness coefficient of outlet(s) being flowed.~~

D. Hydraulic Calculations. A full set of hydraulic calculations compliant with the currently adopted version of NFPA 14 shall be submitted unless a pipe schedule is the system design basis. Specific reference must be made for a schedule system to be accepted. Calculations shall terminate at the location of the flow pressure residual hydrant. For manual standpipes, all calculations shall terminate at the FDC.

E. Standpipe system shall be designed, ~~and~~ installed and maintained in accordance with the ~~latest locally~~ currently adopted edition of the International Building Code, International Fire Code, NFPA 14, NFPA 20, NFPA 24 and any applicable local amendments and rules.

6.2.~~3~~4 Fire Pumps

A. ~~Estimated volumetric and pressure demand of fire pumps shall be submitted at the time of Building Permit Review.~~ Fire pumps used in conjunction with standpipe and sprinkler systems, as well as other fire protection systems and private fire service underground water systems will be entirely reviewed prior to system installation. For a complete review to take place, in addition to the requirements of NFPA 20, the following information shall be included:

~~A~~B. Description of fire pump type as well as discharge ratings and capacity. Describe and detail means of pump drive.

~~B~~C. ~~At least 2 complete sets of prints/plans (1 for AFD's records)~~ An electronic set of plans showing the following:

1. Location of fire pump in building showing all details of the fire pump room including provisions for heating, cooling, ventilation of room, drainage in room, emergency lighting and protection from adverse conditions.

2. Full fire pump detail including:

(~~A) Fire pump.~~

(~~B~~A) Type, size, location and arrangement of all check valves, control valves and drain pipes in pump room including termination point of drains

(~~C) Type and location of all hangers and sleeves as well as pipe supports in pump room.~~

(~~D~~B) Type and pressure ratings of all fittings and joints as well as the location of all welds and bends in pump room

(EC) Type, schedule of wall thickness and pressure rating all pipe in pump room

(FD) Type and location of all supervisory devices and associated equipment in pump room

(GE) Location, size and type of pressure gauges on pump

(HF) Location, size and type of circulation relief valve on pump

(IG) Location, size and type of relief valve on pump

(JH) Location, size and arrangement of pump bypass

(KI) Jockey pump as well as jockey pump piping, control and check valves

(LJ) Water measuring devices showing location and size of flow meter, test header as well as size and location of all associated piping, control and check valves

(MK) Location, type and associated wiring of fire pump and jockey pump controllers

(NL) Location, type and size of fire pump deliver

CD. Fire pumps shall be designed and installed in accordance with the latest currently locally adopted edition of the International Building Code, International Fire Code, NFPA 20, NFPA 22, NFPA 24 and any applicable local amendments and rules.

. 6.2.4 Cooking Hood Extinguishing Systems

Engineered commercial cooking exhaust hood extinguishing systems provided for protection of kitchen grease hoods and ducts will be entirely reviewed during the building permit review. Pre-engineered systems descriptions shall include the extinguishing agent planned, the supply and exhaust air arrangement and controls, and the listing or approval agency (e.g. UL, FM). For a complete review of an engineered system to take place, the following information shall be included:

A. Description of extinguishing system type (automatic sprinkler, carbon dioxide, dry chemical or liquid agent).

B. Type of system design -- either an engineered system or a pre-engineered system.

C. Engineered systems shall contain full details of system design as outlined in the subsection outlining the special system type.

D. Design shall specifically note interconnection for fuel supply shut-off, ventilation control, damper control, associated ducting system, alarm retransmission, etc.

E. Cooking hood extinguishing systems shall be designed in accordance with the latest locally adopted editions of NFPA 13, NFPA 17, International Fire Code, International Building Code, Uniform Mechanical Code and any applicable local amendments and rules.

. 6.2.5 Clean Agent Fire Suppression Systems

As a minimum, clean agent fire suppression systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Clean agent fire suppression systems will be reviewed in their entirety prior to system installation. For a review to take place the following information shall be submitted to the City of Austin Fire Department:

A. Pre-Engineered Systems. At least two (2) complete sets of shop drawings and specifications showing the following information shall be submitted:

1. Hydraulic calculations may not be required, but the design factors and design limitations shall be enumerated. Data shall include reference to the specific pages and plates from the manufacturer's design manual.

2. The actual percent-by-volume concentration of Halon for the specific volume shall be shown for both the minimum and maximum expected temperature.

3. Plans shall show the maximum area, maximum volume, type of clean agent, weight of clean agent, maximum pipe length, type of pipe, and number of fittings allowed in the specific design. Plans show the routing of the piping and should show sufficient detail to verify that the system does not exceed the piping limitations of the listing.

4. Multiple systems shall not be used to protect large areas unless the equipment listing allows it. Unless otherwise approved by the Chief, all containers used for the protection of a specific area shall be arranged for simultaneous release.

5. Scaled plan and section views to confirm that the volume is within design limitations. Plans shall show the location of the clean agent containers, control panel, detectors, manual releases and other essential components.

6. A bill of materials showing sufficient information on the various devices used in the installation so that the listing can be confirmed.

7. The discharge time.

8. An electrical plan showing the arrangement of the control unit, power supply, point-to-point electrical wiring of all equipment, ventilation interlocks, damper and door closure, equipment interlocks, time delays, and alarm devices, and if applicable, reserve power details with calculations to confirm sizing.

9. The sequence of events, indicating operation of system under normal and emergency conditions. The purpose and operation of system time delays and aborts should be documented and should meet the requirements of this guide. The sequence of events shall be in a format suitable for posting in the protected area.

10. Supply sufficient information to evaluate the following environmental factors:

a. Ventilation equipment and its operation.

b. Combustible loading.

c. Construction materials.

d. Presence of sprinklers.

e. Protective signaling service availability.

f. The tightness of the room.

11. City of Austin building permit related tracking number when applicable. This can be the plan review tracking number (PR number) or the building permit number (BP number).

B. Engineered Systems. Shall be composed of equipment listed by U. L. or approved by FM. In addition to Items 5-10 above, at least two (2) complete sets of shop drawings, and specifications showing the following information shall be submitted:

1. The hydraulic flow calculations shall be included with the submittal. The use of computer programs is recommended for calculating engineered systems. Complete input/output data should be shown, and sufficient details should be included to aid in the prompt verification of the calculations and nozzle selection.

2. An isometric sketch of the piping layout shall be provided with the submittal. Indicate on the sketch the size and length of pipe, type of pipe, elevation changes, and the location of reference points used in the calculations.

C. Clean Agent Fire Suppression Systems. Shall be designed and installed in accordance with the latest locally adopted editions of NFPA 12A, NFPA 2001, International Building Code, International Fire Code, and any applicable locally adopted amendments and rules.

6.2.65 Carbon Dioxide Systems

As a minimum, carbon dioxide systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Carbon dioxide systems will be reviewed in their entirety prior to system installation. At least two (2) sets of shop drawings and specifications An electronic set of plans showing the following information shall be submitted to the Austin Fire Department for review:

A. Name of owner and/or occupant, address and tType of system:

1. Total flooding system
2. Local application system
3. Hand hose line system
4. Standpipe systems and mobile supply

B. The hydraulic flow calculations shall be included with the submittal. The use of computer programs is recommended for calculating engineered systems. Complete input/output data should be shown, and sufficient details should be included to aid in the prompt verification of the calculations and nozzle selection.

C. An isometric sketch of the piping layout shall be provided with the submittal. Indicate on the sketch the size and length of pipe, type of pipe, elevation changes, and the location of reference points used in the calculations.

D. The minimum design percent-by-volume and volume factor shall be provided. The minimum and maximum temperatures expected in the space to be protected is also required.

E. Scaled plan and section views to confirm that the volume is within design limitations. Plans shall show the location of the CO2 containers, control panel, detectors, manual releases and other essential components.

F. A bill of materials showing sufficient information on the various devices used in the installation so that the listing can be confirmed.

G. The discharge time.

H. An electrical plan showing the arrangement of the control unit, power supply, point-to-point electrical wiring of all equipment, ventilation. interlocks, damper and door closure, equipment interlocks, time delays, and alarm devices, and if applicable, reserve power details with calculations to confirm sizing.

I. The sequence of events, indicating operation of system under normal and emergency conditions. The purpose and operation of system time delays and aborts should be documented and should meet the requirements of this guide. The sequence of events shall be in a format suitable for posting in the protected area.

~~J~~. ~~City of Austin building permit related tracking number when applicable. This can be the plan review tracking number (PR number) or the building permit number (BP number).~~

~~K~~J. Supply sufficient information to evaluate the following environmental factors:

1. Ventilation equipment and its operation.
2. Combustible loading.
3. Construction materials.
4. Presence of sprinklers.
5. Protective signaling service availability.
6. The tightness of the room.

~~L~~K. Carbon dioxide systems shall be designed and installed in accordance with the latest locally adopted editions of NFPA 12, International Building Code. International Fire Code and any applicable locally adopted amendments and rules.

. ~~6.2.7 Dry/Wet Chemical Systems~~

~~As a minimum, wet or dry chemical systems shall be conceptually identified along with the design basis at the time of Building Permit Review. With the exception of commercial cooking protection systems installed in accordance with their listing, dry and wet chemical systems will be reviewed in their entirety prior to system installation. For a review to take place, the following information shall be submitted to the City of Austin Fire Department:~~

~~A. Description of the type of system and its intended operation.~~

~~B. Description of the hazard to be protected.~~

~~C. Two (2) complete sets of contractor's prints/plans showing the following information:~~

~~1. Name of the owner and/or occupant.~~

~~2. Type of dry or wet chemical to be used.~~

~~3. Design criteria detailing the amount of dry or wet chemical agent required.~~

4. Type, size, location and arrangement of storage container(s).

5. Type, location and flow rate of each nozzle.

6. Type, size, schedule, location, arrangement support, equivalent lengths and pressure ratings of all pipe, fittings and hose.

7. Type, location, arrangement and function of all associated detection devices, operating devices, auxiliary equipment and electrical circuitry.

8. Detailed explanation of any special features.

9. Architectural details of equipment or space being protected.

10. City of Austin building permit related tracking number when applicable. This can be the plan review tracking number (PR number) or the building permit number (BP number).

D. Calculations. Complete set of calculations shall be submitted for review and approval, if applicable. Calculations shall include volumetric considerations, container pressure, quantity of agent required, pressure losses due to friction, etc.

E. Dry and wet chemical systems shall be designed in accordance with the latest locally adopted editions of NFPA 17 and NFPA 17A respectively, the International Building Code, the International Fire Code and any applicable locally adopted amendments and rules.

. 6.2.8 Foam System

As a minimum, foam systems shall be conceptually identified along with the design basis at the time of Building Permit Review. Foam systems will be reviewed in their entirety prior to system installation. When foam sprinklers a e to be installed, documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at: http://www.austintexas.gov/department/afd-plans-review

For a review to take place, the following information shall be submitted to the City of Austin Fire Department:

A. Description of the type of system and its intended operation.

B. Description of the hazard to be protected.

C. Two (2) complete sets of contractor's prints/plans showing the following information:

1. Name of the owner and/or occupant.

2. Type and percentage of foam concentrate to be used.

3. Required solution application rates.

4. Water demand requirements for the foam system.

5. Calculations detailing the amount of foam concentrate required.

6. Hydraulic calculations for all pipe and hose systems.

7. Type, location, arrangement and function detection devices, operating devices, generators, pumps, discharge outlets, auxiliary equipment and electrical circuitry.

8. Detailed description of any special features.

9. Detailed data describing pumps, drives, controllers, power supply, fittings, suction and discharge connections and suction conditions.

10. Foam expansion ratios.

11. Type, size and location of all hose streams and monitors. Indicate the type of thread utilized for hose connections.

12. Type, size and location of all foam generators, applicators, forced foam makers and foam chambers.

13. Type, size and location of all foam metering, check and control valves.

14. Type, size and location of concentrate container(s) including dip tubes and educators.

15. Type, size, schedule, location, arrangement, support, equivalent lengths and pressure ratings of all pipe and fittings.

16. Architectural details of equipment or space being protected.

17. City of Austin building permit related tracking number. This can be the plan review tracking number (PR number) or the building permit number (BP number).

D. Water Supply Information. Available water supply data including a graph which compares the system demand to the available supply. Information shall be included on the size of the city or district water main(s) and whether the main(s) is/are a dead-end or circulating type. If the main(s) is/are a dead-end type, provide the distance to the nearest circulating main and the size of that circulating ma.n. Also describe in detail any other source of water supply. All water flow test data shall be shown on the plans and shall include the following information:

1. Location and elevation of static and residual test gauge with relation to the project reference point.

2. Flow location.

3. Static pressure, (pounds per square inch).

4. Residual pressure, (pounds per square inch).

5. Pitot pressure, (pounds per square inch).

6. Flow, (gallons per minute).

7. Date.

8. Time.

9. Test conducted by.

10. List of equipment utilized in test.

E. Calculations. Complete set of calculations shall be submitted for review and approval. Calculations shall include volumetric considerations, quantity of agent required, pressure losses due to friction, etc.

F. Foam systems shall be designed in accordance with the latest locally adopted edition NFPA 11, NFPA 11A, International Fire Code, International Building Code, and any applicable locally adopted amendments and rules.

6.2.8 Water Mist Systems

Reserved

6.3.0 FIRE ALARM SYSTEMS SUBMITTAL REQUIREMENTS

Fire alarm and emergency communication systems shall be designed in accordance with the currently adopted edition of NFPA 72, the Building Code, the Fire Code and any applicable amendments and rules. Plans shall contain all of the information specified in the currently adopted edition of the NFPA 72 standard and Fire Code.

Detailed fire alarm, detection, and emergency communication system shop drawings will be reviewed in their entirety prior to system installation. For a shop drawing review to take place, the following information shall be submitted:

A. For general alarm systems, a scope of work indicating the system type and any additional functions it may provide. A sequence of operation for all system components and related operations it may perform (shut down fans, pressurized stairs, etc.) shall be included. At least 2 sets of contractor's plans/prints (1 for AFD's records) showing the following:

1. All information specified in Sections 907.1.1 and 907.1.2 of the 2012 International Fire Code. Documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at http://www austintexas.gov/department/afd-plans-review

2. Type and location of fireman's telephone jacks or permanent telephone handset.

3. Type and location of all stairwell telephone handsets.

4. Type and location of all supervisory devices (tamper switch, low air supervisory switch, etc.).

5. Exact location and type of duct detectors showing precisely where the detector will be placed in relation to all air handlers and supply/return ducts.

6. For addressable systems, show device address on plan.

7. Relays for additional system functions.

8. Elevation view of all graphic annunciator panels detailing the method of device or function labeling.

9. Riser diagram showing all devices and zoning provided.

10. The License number, address, and phone number of the installing contractor.

11. City of Austin building permit related tracking number when applicable. This can be the plan review tracking number (PR number) or the building permit number (BP number).

6.3.1 B. Alternatives to Full Plan Submittals for Fire Alarm Systems

A. For fire alarm installations involving 5 or fewer fire alarm devices on an existing system, the Austin Fire Department will now accept documentation in the form of a letter and simple plan, in lieu of a plan submittal. The letter and plan must be written and submitted in accordance with the following guidelines: or fire sprinkler monitoring system only, Austin Fire will accept the following documentation in lieu of complete drawings.

1. Scope Letter Requirements: Letter mMust be written and signed by the firm's APS, on the installing contractor's letterhead, with State License number shown, and with the following information including:

a. Project name and address, including suite number if applicable.

b. Building permit number

bc. Number and type of devices added, moved, or deleted, including candela rating of strobes.

cd. Indicate that the installation and materials shall be in accordance with NFPA 72, and that voltage drop and backup battery calculations have been performed and are in accordance with Stating the work will be done per IFC and NFPA 72 requirements

2. The simple plan must show the limits of work, be drawn to a standard architectural scale or dimensioned, and indicate the candela rating of any strobes to allow device spacing to be checked.

2. Letter and plan may be faxed or emailed to reviewer, and stamped letter and plan can be faxed or emailed to contractor. Contractor may also make an appointment with an AFD plan reviewer (if time permits), and bring the letter in for approval along with a plan showing the proposed device locations. After checking the plan for basic device spacing, the reviewer will stamp the letter approved, if acceptable

3. The approved letter and plan must be on site and be available for the AFD inspector prior to the fire alarm system test. Note: Normal plan submittals with 7 day turnaround times will still be accepted for these installations if desired.

B. For fire alarm installations involving Fire Alarm Control Panel (FACP) replacement only or FACP replacement with initiating devices and/or notification devices being replaced on an existing system, Austin Fire will accept the following documentation in lieu of complete drawings.

1. Scope Letter Requirements: Must be written and signed by the firm's APS, on the contractor's letterhead, including:

(A) The scope of work.

(B) Outlining the procedures used to program the new panel.

(C) Stating 100% of the devices will need to be tested per NFPA 72.

(D) Method used to verify adequacy of signal circuits power.

(E) Stating which plans are to be used for test and inspection.

(F) Stating that all the work will be done per IFC and NFPA 72 requirements

2. Plans Requirements: Shall be submitted for review and present during the inspection/test, either:

(A) The original Austin Fire stamped approved plans with a note added above the Austin Fire approval stamp indicating the installing firm's information (name, address, license #, etc.) and the date the FACP was replaced; or

(B) Record Drawings signed by the APS with all existing devices (initiating/notification/communication) and FACP location; or

(C) Survey Drawings with a note indicating that the drawings reflect only devices visible from a floor level visual survey.

~~C. For installations of systems to be used to only monitor fire sprinkler systems, the Austin Fire Department accepts documentation in the form of a letter. The letter must be written and submitted in accordance with the following guidelines.~~

~~1. A completed New Fire Alarm Fee Calculation Form, along with the required fee (generally $100) must be submitted with the letter.~~

~~2. Letter must be written and signed by the firm's APS, on the installing contractor's letterhead, with State License number shown, and with the following information:~~

~~a. Project name and address, including suite number if applicable.~~

~~b. Material equipment list.~~

~~c. Indicate that the installation and materials shall be in accordance with NFPA 72, and that voltage drop and backup battery calculations have been performed and are in accordance with NFPA 72 requirements.~~

~~3. Contractor may mail or hand carry the letter and fee to AFD plan review, or may make an appointment to meet with a reviewer. After checking the submittal, the reviewer will stamp the letter approved, if acceptable, and return (or fax) it to the contractor.~~

~~4. The approved letter must be on site and be available for the AFD inspector prior for the system test. Note: Normal plan submittals with 7 day turnaround times will still be accepted for these installations if desired.~~

~~D. Fire alarm/detection systems shall be designed in accordance with the latest locally adopted editions of the International Building Code, International Fire Code, NFPA 70, NFPA 72, and any applicable local amendments and rules.~~

## 6.4.0 ACCESS CONTROL AND ELECTRICAL LOCKING SYSTEM SUBMITTAL REQUIREMENTS

~~Controlled access/egress systems shall be identified for the Building Permit Review. Electric Strikes and Electric Locksets installed in accordance with the International Building Code which allow free egress at all times, will generally not require a plan submittal, review or inspection, unless installed in a high rise stairwell. All exit doors must permit egress without the use of a key or any special knowledge, in accordance with the International Building Code (IBC) as amended by the City of Austin (note: IBC Sec. 1008.1.4.4 has been deleted per City of Austin Amendment, the red button exits systems were no longer allowed after May 1994). Doors which utilize Listed crash bars (panic hardware), Listed touch sensor bars or other Listed door mounted hardware to release a magnetic lock by physically breaking the circuit at the door, in a building which is compliance with the Building Code, will be acceptable subject to the requirements detailed below. A fire alarm or automatic sprinkler system will not be required for buildings with access control systems unless otherwise required by the Building or Fire Code. Delayed Egress systems must be installed per IBC Section 1008.1.9.6 or 1008.1.9.7. API wiring must be in accordance with the National Electrical Code, and any other applicable code.~~

~~The installation of magnetic locks or delayed egress systems will require plans approved by, and an inspection/test by the Austin Fire Department. Review turn-around time is 5 working days, or reviews may be done by previously scheduled appointment, if reviewer time permits. Plans submittals shall be as follows (Minimum of 2 complete sets must be submitted, one will be kept for AFD file, one will be returned to contractor and must be on site during the inspection):~~

~~A. Floor plan showing available egress pathways, the location of the proposed locks, and indicating any fire rated walls.~~

~~B. Equipment list and cut sheets for all components involved in locking the doors, with UL Listing shown.~~

~~C. For Maglocks, a wiring diagram showing how the power is physically interrupted at the door, independent of the security system software (redundant REX unlocking via security system is allowed).~~

~~D. Sequence of operation indicating how door is unlocked. For delayed egress systems, all requirements of IBC Sec. 10083438.6 must be addressed in the sequence of operation.~~

~~E. Name, address and phone number of the installer.~~

~~F. Name and address of the project.~~

~~G. City of Austin building permit related tracking number. This can be the plan review tracking number (PR number) or the building permit number (BP number).~~

~~Controlled access/egress systems shall be designed and installed in accordance with latest locally adopted editions of the International Fire Code, International Building Code, and any applicable locally adopted amendments and rules.~~

Access control/electrical locking system (ELS) shall be designed in accordance with the currently adopted edition of the International Building Code, Section 1010. New system plans shall be submitted to Austin Fire OR Austin Development Services (ADS) based on the information below:

A. Identify the project type

If ELS/AC is part of a new construction or remodel, submit an update to the open Plan Review (PR) or a revision to the active Building Permit (BP) through ADS, where ADS fees will apply, and fire inspection fees will be invoiced when inspections are scheduled. If the system is being added to an existing building with no other work, proceed to Step 2.

B. Check for an existing permit or plan

If the address or suite already has an active BP or pending PR that covers the affected doors, submit an update to the PR or a BP revision through ADS; ADS fees and later fire inspection fees will apply. If no BP or PR exists, continue to Step 3.

C. Confirm the scope

If the work is limited to adding ELS on existing doors only, with no new construction, demolition, door replacements, door additions, or floor plan changes, submit directly to Austin Fire for review and pay applicable fire review fees. If any additional construction or modification is involved, submit an update to the PR or a BP revision through ADS, where ADS fees and subsequent fire inspection fees will apply.

Panel Replacement Requirements submittals are subject to the following requirements:

A. Fire review is required for any replacement or modification of access control panels, controllers, power supplies, programming, or fire-alarm interfaces that affect egress door locking. This includes high-rise FCC door-override switches and mid-rise/stairwell Knox override toggles when involved.

B. Submittals must include: a brief scope confirming the work involves existing access-control/egress equipment; product data sheets with applicable UL listings; confirmation of fire-alarm interfacing (and method, if present); and identification/confirmation of any high-rise or mid-rise override functions. Provide a short narrative describing how doors release normally, on fire alarm (if used), and on power loss.

C. Inspections will verify that affected doors unlock under all required conditions, that any fire-alarm interface and any override switches operate correctly, and that the system functions as described in the narrative.

## 6.5.0 EMERGENCY RESPONDER COMMUNICATION ENHANCEMENT SYSTEM SUBMITTAL REQUIREMENTS

~~RESERVED~~

Emergency Responder Communication Enhancement Systems (ERCES) that typically include a Bi-directional Amplifier (BDA) or Distributed Antenna System (DAS) amplifier and associated equipment to be installed in new or existing occupancies. Detailed system shop drawings will be reviewed in their entirety prior to system installation.

A. Amplifier Requirements and GATRRS Compliance

The Greater Austin/Travis County Regional Radio System (GATRRS), the administrator and governing authority for the regional public safety radio network, requires that all ERCES installations utilize FCC-certified Class A channelized amplifiers. All amplifiers shall comply with UL 2524 and NFPA 1225. The use of Class A amplification ensures controlled, channel-specific filtering, minimizes out-of-band emissions, supports interoperability with the GATRRS system, and maintains the integrity and reliability of the regional public safety radio infrastructure.

B. Amplifier Configuration and System Topology Restrictions

System designs that require multiple amplifiers shall interconnect those amplifiers only by using fiber-optic cable. Designs that employ cascaded RF amplifiers are not permitted because they raise the system noise floor, increase the potential for intermodulation, and can degrade the performance of both the ERCES and the regional radio system.

C. NICET Certification Requirements

Emergency Responder Communication Enhancement Systems (ERCES) shall be designed and installed by personnel certified through the National Institute for Certification in Engineering Technologies (NICET) In-Building Public Safety Communications (IB-PSC) certification program, or by individuals holding an equivalent certification approved by the City of Austin.

The following minimum certification requirements shall apply:

1. System Design

   System design, including all drawings, calculations, and supporting documentation, shall be prepared under the responsible charge of a NICET IB-PSC Design Track certification holder.

2. Installation Supervision

   Installation, on-site construction activities, system testing, and commissioning shall be supervised by a NICET IB-PSC Level II Technician, at a minimum.

3. Documentation

   Current NICET certification credentials for both the system designer and the supervising installation technician shall be submitted as part of the ERCES shop drawing package prior to permit approval.

## 6.6.0 SMOKE CONTROL SYSTEMS SUBMITTAL REQUIREMENTS

### 6.6.1 Smoke Control and Smoke Removal Systems

Smoke management systems will be reviewed in their entirety during the building permit review. For this complete review to take place, the following information shall be included:

A. A description of the system type, what the system is designed to achieve, as well as system operation (manual and automatic modes)

B. ~~Complete set of prints/plans~~ An electronic set of plans showing the following:

1. Architectural details of building (walls, corridors, doors, partitions, etc.).
2. Location, size and capacity of all smoke control/removal fans.
3. Location and size of all smoke dampers.
4. Location and type of all related smoke detectors, heat detectors, water flow detectors as well as any other automatic interface devices.
5. Full details concerning location and arrangement of automatic and manual controls.
6. Location, size and arrangement of all make-up air devices.
7. All electrical, pneumatic, mechanical or hydraulic equipment used for system operation.
8. Curtain board location, size and construction.
9. Type, size and location of all openable or removable windows.

C. ~~A full, detailed, testing criteria schedule.~~ A detailed system testing criteria document.

D. Calculations. A set of calculations including all volumetric considerations and expected smoke generation levels of Calculations including design assumptions based on the projected fire scenario.

E. Smoke management systems shall be installed and designed in accordance with the latest adopted edition of the International Fire Code, International Building Code, Uniform Mechanical Code and any applicable local amendments and rules.

See Section ~~3.2.15~~ 3.2.1.9 for submittal requirements for the review of stairwell/vestibule pressurization systems.

6.6.2 Atrium Review

At the building permit stage, atrium smoke management systems shall be submitted for review and approval as described in Section 3.1.9~~2.6~~. Prior to system installations, ~~fire~~ automatic sprinkler and fire alarm system contractor's drawings and calculations (shop drawings) shall be submitted for review and approval as described in Chapter 3. ~~Sections 3.2.5, 3.2.6, 3.2.8 and 3.2.9~~. For complete review to take place, the following information shall be included:

A. Atrium smoke management system boundaries shall be clearly identified. The tenant smoke control system boundaries must be clearly identified.

B. Calculations including design assumptions based on the projected fire scenario.

C. Quantity and location of exhaust inlets.

D. Software modeling the projected fire scenario.

~~B~~E. Clearly indicate location and construction type for all atrium separations that are less than one (1) hour fire resistive construction.

~~C~~F. A complete list of all atrium furnishings indicating the combustible items shall be submitted to ~~the City of~~ Austin Fire ~~Department~~ for approval. In addition, written justification and certificate of proof for the flame retardant treatment of combustible materials shall be submitted with this list.

For specifics on smoke control system submittal requirements, see “Smoke Control and Smoke Removal Systems" of Section 3.2.6.

6.6.3 Stairwell/Vestibule Pressurization Systems

As a minimum. stairwell/vestibule pressurization systems shall be conceptually reviewed during the building permit process. A complete and detailed review of the system design shall be required prior to system installation. For a complete review to take place, the following information shall be submitted:

A. ~~Complete set of plans/prints~~ An electronic set of plans showing the following:

1. Architectural details of the shaft including construction, all penetrations (including doorways), seals/gasketing provided
2. Size, type and location of all fans
3. Size, type and location of all barometric reliefs
4. Type and location of all manual/automatic controls
5. Size, location and type of all louvers and dampers
6. Location, dimensions and construction of all ductwork
7. Size and location of all air injection and removal points
8. Location and size of all system air intakes and exhausts
9. Location, dimensions and construction of all vestibules
10. Type of control equipment (i.e., electric, pneumatic, hydraulic, etc.)

B. Complete set of calculations noting the following:

1. Pressure(s) to be obtained
2. Temperature assumptions

3. Differential pressures (stack effect)

4. Door opening forces

~~4~~5. Leakage factors (i.e., cracks, doors/windows open, vents, etc.)

~~5~~6. Air velocities

~~6~~7. ~~Pressure loss due to friction~~ Supporting documentation (equipment datasheets, modeling software, etc.)

C. Stairwell/Vestibule pressurization systems shall be designed in accordance with the ~~latest locally~~ currently adopted editions of the International Building Code, International Fire Code, Uniform Mechanical Code and any applicable amendments and rules.

6.7.0 FIRE PROTECTION, NFPA 13, AND NFPA 14 RULES

A. Rules made by the City of Austin for the Fire Code ~~and WUI Code~~ will be contained within this section. The purpose of this section is to outline the rules issued by the City of Austin pertaining to specific codes, standards and amendments. Such rules are promulgated to administer and implement the Fire Code ~~and WUI Code~~.

B. Rules reference appropriate International Code sections or other adopted standards. Rules are in the same order as the referenced sections. ~~Source: Rule No. R161-21.05, 3-22-2021.~~

6.7.1 INTERNATIONAL FIRE CODE AND LOCAL AMENDMENTS

CITY OF AUSTIN FIRE PROTECTION RULE FP1

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 901.4.7.1, also reference the currently adopted edition of NFPA 13, 13R, and 20.

Fire risers, fire pumps and controllers shall be provided with ready access.

Ready access shall be provided by one of the following:

1. A dedicated room with an exit door directly to the exterior.
2. A location within 15 feet horizontal travel distance from an exterior exit door.

Exception: Fire pumps shall be in a dedicated fire rated enclosure per NFPA 20, accessible by a fire rated corridor from exterior exit per NFPA 20 4.14.2.1.

Where ready access cannot be provided to a fire sprinkler riser, a means to shut off the water supply to the sprinkler system must be provided from the exterior of the building per NFPA 13 and NFPA 13R.

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 105.4, and 907.1.1. Minimum submittals for proposed sprinkler monitoring systems shall be as follows:~~
~~The Austin Fire Department accepts documentation in the form of a letter, backup battery calculations, and equipment data, for installations of systems to be used to only monitor fire sprinkler systems (i.e. no local evacuation alarms). The letter must be written and submitted in accordance with the following guidelines:~~
~~1. Documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at http://www.austintexas.gov/department/ afd-plans-review. A completed Fire Alarm System (New) fee calculation form, and the required fee must be included with the submittal, the form can be found on line @ http://www.austintexas.gov/department/ afd-plans-review.~~
~~2. Letter must be written and signed by the firm's APS, on the installing contractor's letterhead, with State License number shown, and with the following information:~~
~~a. Project name and address, including suite number if applicable.~~
~~b. Material equipment list, with data sheets attached.~~
~~c. Indicate that the installation and materials shall be in accordance with NFPA 72.~~
~~d. Voltage drop and backup battery calculations shall be attached.~~
~~e. Indicate the communication method used between the site and the monitoring station.~~

3. Contractor may hand carry, mail, email, or fax the above information to AFD plan review for review, or may make an appointment to meet with a reviewer, if time permits. After reviewing the letter submittal, the reviewer will stamp the letter as appropriate to indicate the result of the review, and return it to the contractor.
4. The approved letter must be on site and be available for the AFD inspector prior for the system test.
5. The review of sprinkler monitoring system letter submittals will be handled in the same manner as remodel plan submittals. Inspections will not be scheduled until the letter submittal has been approved and returned to the contractor.

CITY OF AUSTIN FIRE PROTECTION RULE
International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 105.4, and 907.1.1.

The following requirements for letters from fire alarm contractors may be used in lieu of a full plan submittal for installation of five (5) or fewer fire alarm devices.

The Austin Fire Department accepts documentation in the form of a letter, simple plan, and calculations, for remodels involving five (5) or fewer fire alarm devices on an existing system. The plan must show the limits of work, and be drawn to scale or dimensioned, and indicate the candela rating of any strobes to allow device spacing to be checked.
f involves only the installation of duct detectors, the plan view may be omitted, but the locations of the duct detectors must be indicated by a permanent means at the FACP and on the ceiling beneath the duct detector location(s).

The letter must be written and submitted in accordance with the following guidelines:

1. Documentation that the submittal includes all of the required information must be included using the applicable AFD completenpss checklists available online at http:llwww. austintexas.gov/department/afd-plans-review. A completed Fire Alarm (Remodel) fee calculation form and the required fee must be included with the submittal. The form may be found online at http://www.austintexas.oov/department/afd-plans-review.
2. Letter must be written and signed by the firm's APS, on the installing contractor's letterhead, with State License number shown, and with the following information:
a. Project name and address, including suite number if applicable.
b. Number and type and part numbers of devices added, moved, or deleted.
c. Indicate that the installation, calculations, and materials shall be in accordance with NFPA 72.
d. Submit backup battery calculations performed in accordance with NFPA.
e. For notification circuit remodels, submit voltage drop and current calculations accounting for affected circuits and power supplies per AFD guidelines below.

3. Contractor hand carry, may mail, email, or fax the letter and plan to AFD plan review, or may make an appointment with an AFD plan reviewer, if time permits. After reviewing the letter submittal, the reviewer will stamp the letter as appropriate to indicate the result of the review, and return it to the contractor.

4. The approved letter and plan must be on site and be available for the AFD inspector prior to the fire alarm system test.
5 Be advised, for initiating devices added on software controlled systems, a test of 10% or 50 devices on the same circuit will be required per 2013 ed. NFPA 72, Sec. 14.4.1.2.1.4.
6. If signaling devices ale being added, AFD must try to ensure that notification circuits (strobe and audible circuits) are not overloaded. Submittals involving the addition of new notification/signaling devices to existing circuits require one of the following approaches to document the circuit and power supply capacity, and allow realistic calculations to show the final current and voltage values for the remodeled circuit and power supply:
a. Forjobs where all the devices on the circuit are known: Show on the plan all the devices on the altered circuit (existing devices not part of the work can be shown on a riser diagram), from the end of line resistor to the power supply, account for all devices in the submitted voltage drop and current calculations. Indicate on the plan the make and model of the power supply, the circuit capacity and total capacity of the power supply, and the total load measured (or calculated) on the other power supply circuits.
b. For jobs where all the devices on the circuit are not known: Show on the plan all the known devices on the circuit to be altered (existing devices not part of the work can be shown on a riser diagram)„ and the location of the end of line resistor with the following field measurements shown:
Note: No. 1 and 2 measurements below are to be taken on the unaltered existing circuit which will have proposed devices added.
1. Voltage at end of line resistor while circuit is activated.

2. Total current on the circuit when activated.
3. Total current from all circuits on the power supply when activated.
Use the above measurements in the submitted voltage and current calculations. Indicate on the plan the make and model of the power supply, the circuit capacity and total capacity of the power supply, and the total load measured on the other power supply circuits.
7. For all field measurements, indicate on the plan the date and location of the measurement, and the name of the technician taking the measurement. For all remodel jobs, field measurements documented as detailed above, will be acceptable as part of the calculations.

8. The review of 5 or less alarm device letter submittals will be handled in the same manner as remodel plan submittals. Inspections will not be scheduled until the letter submittal has been approved and returned to the contractor.

CITY OF AUSTIN FIRE PROTECTION RULE
International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 105.4, and 907.1.1

The following requirements for letters from fire alarm contractors maybe used in lieu of a full plan submittal in cases where only the existing FACP (Fire Alarm Control Panel) is to be replaced in an existing fire alarm system and no other alterations are to be made to the existing system.
The Austin Fire Department accepts documentation in the form of a letter, a simple plan and calculations involving only the replacement of an existing FACP in an existing fire alarm system with no other alterations to the system. The letter must be written and submitted in accordance with the following guidelines:
1. Documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at http://www.austintexas.gov/department/afd-plans-review.

2. A completed Fire Alarm Panel Replacement fee calculation form (the form can be found online @ http://www.austintexas.gov/department/afd-plans-review), filled out as follows: Inspection portion, (top half) for Item A include all devices in the entire system and if answer to line item C6 is "No" then enter 10 /o of total device in Line A for item C, if answer to line item C6 is "Yes" then enter the same number of devices as shown in Line A for item C. Plan review portion, (bottom half), if answer to existing approved plans is "Yes" then enter 10% of device in Line A, if answer to existing plans is "No" then enter the same number of devices as shown in Line A.

3. Letter must be written and signed by the firm's APS on the installing contractor's letterhead, with State License number shown and the following information:
a. Project name and address, including suite number if applicable.
b. Outlining the procedures used to program the new panel (per item #4).
c. Stating if 10% or 100% of the devices shall be tested (per item #4).
d. Indicate that the installation, materials and calculations shall be in accordance with NFPA 72.
e. Method used to verify adequacy of power for signaling circuits.
4. Data sheet for the new FACP, backup battery calculations and voltage drop calculation if NAC circuits are connected to and powered by the new FACP.
5. FACP replacement that involves a simple conventional panel or a "plug in, to reprogram" as outlined in the submitted letter shall require testing of a minimum of 10% of the devices controlled by the panel. Any FACP replacement that involves "key strokes" to reprogram the system for the new FACP shall require testing of 100% of the devices controlled by the panel.

6. The following plans shall be required to be on site at the time of the test/inspection: Either the original approved plans with an obvious and clear note added to the plans indicating the new

FACP was added by your firm or field verified Asbuilts submitted to AFD and approved prior to testing (Asbuilts need only show existing device types, locations and candelas of notification appliances connected to the FACP and asbuilts shall be signed by the APS with a note indicating that the plans reflect only devices visible from a floor level visual survey).
/Vote: The plans must clearly indicate model number and manufacturer for each symbol shown on the plans so compatibility of equipment with new FACP can be verified. If this information is not shown on the original record drawings or asbuilts then the contractor shall add this to the plans.
7. Contractor may hand carry, mail, email or fax the letter and plan to AFD plan review or may make appointment with an AFD plan reviewer if time permits. After reviewing the letter submittal the reviewer shall stamp the letter accordingly and return it to the contractor.

8. The approved letter and plan must be on site and be available for the AFD inspector prior to the fire alarm system test.

9. The review of letter submittals for panel replacement only will be handled in the same manner as remodel plan submittals. Inspections will not be scheduled until the letter submittal has been approved and returned to the contractor.

Note: In order to minimize the time that a property is unprotected if an FACP is out of service, the replacement FACP may be installed and the system returned to service while the asbuilts are completed or while waiting for the inspection/test.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 105.4, and 907.1.1
The following requirements for letters from fire alarm contractors maybe used in lieu of a full plan submittal in cases where only the existing fire alarm devices are to be replaced on a 1 for 1 basis with no changes to the device locations, coverage or any other alterations to the system.
The Austin Fire Department accepts documentation in the form of a letter, a simple plan and calculations involving only the replacement of all or a portion of the existing devices in an existing fire alarm system with no change to the device locations, coverage or other alterations to the system.

The letter must be written and submitted in accordance with the following guidelines:

1. Documentation that the submittal includes all of the required information must be included using the applicable AFD completeness checklists available online at http://www.austintexas.gov/department/afd-plans-review.
2. A completed Fire Alarm System (Remodel) fee calculation form (the form can be found online @ http://www.austintexas.gov/department/afd-plans-review), filled out as follows: Inspection portion, (top half) and the Plan Review portion (bottom half) enter only the number of devices that are going to be replaced 1 for 1 in the system.

3. Letter must be written and signed by the firm's APS on the installing contractor's letterhead, with State License number shown and the following information:
a. Project name and address, including suite number if applicable.
b. Material equipment list with quantity and type of devices with data sheets attached for each device type.
c. Indicate that the installation, materials and calculations shall be in accordance with NFPA 72.

d. Battery calculations for each FACP, Power Supply, Amplifier or similar type unit in the system that is affected by the 1 for 1 device replacement shall be attached.

4. When notification devices are replaced either voltage drop calculations or a table indicating both the current draw and end of line voltage for each NAC circuit as measured in the field while the circuit is active shall be submitted to account for the electrical characteristics of the “new” devices.
5. All devices that have been replaced shall be tested or a minimum of 10% of the total system devices per NFPA 72, whichever is greater.

6. The following plans shall be required to be on site at the time of the test/inspection: Either the original approved plans with an obvious and clear note(s) added to the plans indicating what devices have been replaced and the date they were replaced by your firm or field verified Asbuilts submitted to AFD and approved prior to testing (Asbuilts need only show existing device types, locations, candelas and new device addresses if applicable and shall be signed by the APS with a note indicating that the plans reflect only devices visible from a floor level visual survey).

7. Contractor may hand carry, mail, email or fax the letter and plan to AFD plan review or may make appointment with an AFD plan reviewer if time permits. After reviewing the letter submittal the reviewer shall stamp the letter accordingly and return it to the contractor.

8. The approved letter and plan must be on site and be available for the AFD inspector prior to the fire alarm system test.

9. The review of letter submittals for device for device replacement only will be handled in the same manner as remodel plan submittals. Inspections will not be scheduled until the letter submittal has been approved and returned to the contractor.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 607.1
When activated, the smoke detector(s), required by the Building Code (LDC Chapter 25-12, Article 1, Sections 403.6 and Chapter 30) and ANSI A17.1 Elevator Code within the elevator lobby(ies), that are installed in buildings with required fire alarm systems, shall annunciate on the fire alarm control panel and cause the appropriate floor alarms to sound.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 703.1 and 703.2
Fire sprinklers may be used to protect fixed glazing, that is not fire protective or fire resistive as defined in the International Building Code, in fire-rated walls provided that such glass is protected by Listed glass protection sprinklers installed per their Listing.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 202 and International Building Code (LDC Chapter 25-12, Article 1), Reference Section 404.6
Any area in an atrium building not separated from the atrium by a one (1) hour assembly or equivalent shall be considered one (1) of the three (3) floors allowed to open to the atrium. This provision applies to all areas (i.e., corridors, restaurants, mercantile areas, etc.) open to the atrium which are not exit balconies.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 903.3.1.2

Within new multiple building R-2 apartment or condominium projects, certain accessory buildings may be protected in accordance with this rule, when applicable. This rule shall only apply to projects when the sprinkler design and installation for the apartment or condominium buildings is permitted to be done in accordance with NFPA 13R. This rule shall further apply only to freestanding accessory or support structures such as clubhouses, leasing offices or other amenity buildings not required to have fire sprinkler protection by the fire or building codes, as amended. These buildings must be located entirely within the bounds of the project and the purpose of the buildings is to meet the needs of the residents within the same project.

Accessory buildings as described above may be protected with fire sprinklers utilizing a limited area wet pipe fire sprinkler installation as defined in this rule and in NFPA 13, 2013 edition, section 4.2 when fire sprinklers are not required by the fire and building codes.
This limited area wet pipe installation allows the omission of fire sprinklers in areas of the accessory structure that would not require sprinkler protection if the accessory use were located within an apartment or condominium building, and the areas are not normally occupied by the management or residents and are not used for storage. Specifically this rule does not require fire sprinklers in combustible attics not used for storage or interstitial floor areas. AU other design criteria for the partial wet pipe fire sprinkler installation would fully comply and satisfy the fire code, NFPA 13 and NFPA 24 and shall include the proper interface to fire alarm systems installed in the project.

CITY OF AUSTIN FIRE PROTECTION RULE FP2
International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 903.3.1.1

Sprinkler heads on required systems shall not be omitted from any electric rooms or closets except for those rooms which are under the exclusive control of the public electric utility company. Whenever possible, fire sprinkler piping and heads shall be located outside the vertical “dedicated” space as described in Section 110.26(F) of the National Electrical Code. If a situation arises in which placement of sprinkler piping or equipment in this space appears to be unavoidable, such conditions shall be clearly identified on sprinkler shop drawings so

that AFD can work out appropriate coverage arrangements acceptable to the Electrical Code Inspector/Plan Reviewer as well as to the Fire Department.

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 903.3.6 and 905.1~~
~~Threaded connections for 1-1/2 inch fire department outlets shall be National Standard Thread. Threaded connection for 2-1/x inch fire department outlets shall be National Standard Thread.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 906.1, the Exception and 906.2.1~~

~~In Group R, Division 2 occupancies a 1A:10B:C fire extinguisher inside each dwelling unit may be used in lieu of a 2A:10B:C fire extinguisher located outside within 75 feet of travel distance. Group R, Division 1 occupancies with attached garages are required a 2A 10B:C within the garage area if a 2A:10B:C fire extinguisher is not located within 75 feet travel distance. Dwelling units with attached garages located on a different grade level will be required to have an additional 1A:10B:C extinguisher in the dwelling unit if no 2A:10B:C fire extinguisher is located with 75 feet travel distance on that elevation.~~

~~If fire extinguisher placement is based on this exception, extinguishers shall be inspected and replaced as required by NFPA 10. In cases where inspection and replacement/maintenance are not compliant, 2A:10B:C fire extinguishers shall be required to be installed at locations outside the dwelling units and within 75 feet travel distance of all points in the structure as specified in NFPA 10.~~

CITY OF AUSTIN FIRE PROTECTION RULE FP3
International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.5.2.2~~4.1 and 907.2~~

In accordance with the currently adopted version of NFPA 72, ~~2013 edition,~~ Sections 24.3.6.1.3.~~4, 3.3.135, 3.3.136, A3.3.136, C.2 and Annex D~~, when provided, voice communication systems ~~for the noted occupancies~~ shall provide ~~the following~~ both a Spanish ~~statement~~ and English evacuation message on a dedicated channel of the voice communication system. The Spanish statement shall be as follows:

ATTENCIO: HAY UNA EMERGENCIA EN EL AREA. POR FAVOR DE PROCEDOR A LA SALIDA MAS CERCANA O ESCALERA Y SALGA DEL EDIFICIO. POR FAVOR, NO USEN EL ELAVADOR. GRACIAS.

(Translation: Attention. There is an emergency in this area. Please proceed to the closest exit or stairwell and leave the building. Do not use the elevator.)

~~The Spanish statement shall be provided on a dedicated channel of the voice communication system. Both an approved English and Spanish statement is required when a voice communication system is provided in the following occupancies:~~

~~Group A occupancies With an Occupant Load of 1000 or more High Rise Buildings Constructed Per IBC Section 403~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.2.1~~

~~Activation of the fire alarm system in a Group A occupancy with an occupant load of 300 or more shall shunt power to the stage and/or music producing equipment to ensure proper audibility.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 907.2.8 and 907.2.9~~

~~When evaluating the audibility of alarms for occupant notification in R-1 and R-2 occupancies from the operation of a fire alarm system or from the operation of a fire sprinkler system, the Fire Department will require and witness a test of the alarm for sound level in the most remote area and in sleeping areas of the most remote dwelling unit(s) of each floor. The door(s) to the unit(s) and, if applicable, the door(s) to the sleeping area(s) shall be closed. The minimum sound level at these locations under the prescribed conditions shall comply with the requirements of section 18.4 of NFPA 72, 2013 Edition.~~

~~The notification signal may be generated by common area devices or by devices within each dwelling unit so long as the minimum sound level is obtained as noted above.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.2.12.3~~
~~Public address systems shall automatically override the automatic voice/alarm system when the microphone's manual switch is operated.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.2.13.1~~

~~In high rise buildings, as defined in the Building Code (LDC Chapter 25-12, Article 1), at least one (1) approved smoke detector is required to be installed in rooms, areas, ducts, risers and equipment which may allow the spread of smoke vertically through the building [see Building Code Section 403].~~

~~If the size of the room or space is larger than the listed/approved spacing requirements of the particular type of detector chosen, then additional detectors shall be provided to meet the proper spacing requirements of the manufacturer, NFPA 72 and NFPA 90A.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.2.13.2~~

~~The Fire Department communication panel shall be equipped with not less than six (6) portable handsets and not less than one (1) for every three (3) floors for two (2) way communication when plug-in phone jacks are utilized. If plug-in phone jacks are not utilized, each station shall be provided with a permanent handset.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~

~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.2.13.2~~
~~In high rise buildings, the phone jacks to the Fire Department communication system (fire fighter's phones) provided at the entry of each enclosed stairway and required by the Building Code (LDC Chapter 25-12, Article 1) Section 403.7 and 907.2.13.2, shall be located in the vestibule immediately outside each stair enclosure. If phone jacks to the Fire Department communication system (firefighter's phones) are provided at each floor level landing within each enclosed stairway, then phone jacks shall not be required in the vestibule (area of refuge) outside the stair enclosure immediately adjacent to the floor level landing.~~

~~If manual pull stations are used for housing the phone jack to the Fire Department communication system, then every installed manual pull station shall be provided with a phone jack.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 907.7.5~~
~~Fire alarm systems shall be supervised by an approved proprietary or remote station service, or by on-site personnel at a constantly attended location when the system is required to be installed in the following occupancies.~~

~~1. High piled storage occupancies, when smoke or heat detection systems are required.~~
~~2. Day care occupancies supervising 100 or more children.~~
~~3. Group I occupancies.~~

CITY OF AUSTIN FIRE PROTECTION RULE FP4
International Fire Code (LDC Chapter 25-12, Article 7), Reference 909.4

Supporting documentation shall be provided with the rational analysis for smoke control system reports. At a minimum, the following information shall be provided:

1. Weather data from the most current ASHRAE Fundaments Handbook and/or Climatic Conditions website.

2. Design assumptions using published literature such as the Handbook of Smoke Control Engineering, Society of Fire Protection Engineers (SFPE) Handbook, or equivalent.
3. Manufacture data sheets for the components of the smoke control system (fans, dampers, etc.).
4. Algebraic formulas used to calculate the required fan size, pressure differentials, and door opening forces.
5. Modeling software results in table format.

Additional information will be requested by Austin Fire should the rational analysis include alternative designs.

CITY OF AUSTIN FIRE PROTECTION RULE FP5

International Fire Code (LDC Chapter 25-12, Article 7), Reference 909.16 and the currently adopted edition of NFPA 92 Section 6.4.5.4

Firefighter's smoke control panel submitted to Austin Fire for review and permitting shall be designed to comply with the requirements of NFPA 92 and the following:

1. The panel face must provide a graphic that depicts a cross-sectional elevation view of the building. All smoke control system hardware such as pressurization fans, exhaust fans, make-up air fans, control dampers, make-up air louvers, make-up air openings, and any other smoke control system hardware that firefighters may be required to manually operate during a fire event must be graphically represented on the panel face. The symbols used to represent the hardware must be included in a symbol's legend located on the face of the panel. Any abbreviations used to identify the hardware symbols must be explained in the legend.
2. Three-position toggle switches are required for all smoke control system fans (pressurization fans, exhaust fans, and make-up air fans) for ON-AUTO-OFF functions. On the panel graphic, the toggle switches must be located adjacent to the symbols representing the hardware that they will serve.
3. Three-position toggle switches are required for control dampers, motorized make-up air louvers, motorized relief/exhaust vents, and controlled make-up air openings for OPEN-Auto-Close functions. On the panel graphic, the toggle switches must be located adjacent to the symbols representing the hardware they will serve.
4. Status lights are required for each piece of smoke control equipment as follows:
    - ·Fans, dampers, and other operating equipment in their normal status – WHITE
    - ·Fans, dampers, and other operating equipment in their off or closed status – RED
    - ·Fans, dampers, and other operating equipment in their on or open status – GREEN
    - ·Fans, dampers and other operating equipment in a fault status – YELLOW/AMBER
    - ·The status lights must be located adjacent to the hardware that they serve
5. Use directional arrows on the panel graphic to indicate the intended direction of airflow through the smoke control system equipment.
6. On the face of the panel, provide a brief set of instructions for firefighter operation of the system.
7. A "lamp test" momentary push button must be provided on the face of the panel as a means for verification that all lamps are operational.
8. The firefighter's smoke control panel must be in the fire command room.
9. The firefighter's smoke control panel must not require a key to enable use of the panel.

CITY OF AUSTIN FIRE PROTECTION RULE FP6

International Fire Code (LDC Chapter 25-12, Article 7), Reference 909.18.8.2

Smoke control systems shall be tested by a Special Inspection Agency (SIA) on Austin Fire's approved list. Design professionals requesting to become an approved SIA in the City of Austin shall submit an application for review and approval to Austin Fire prior to smoke control system testing.

Refer to section 7.3.0 in the Fire Criteria Manual for SIA application requirements

CITY OF AUSTIN FIRE PROTECTION FP7

International Fire Code (LDC Chapter 25-12, Article 7), Reference 909.20.4.1

Stairwell pressurization fan capacities must be determined by use of a computer software network modeling program if the high-rise building is mixed-use or taller than 420 feet in height.

If the building is not mixed-use, it has only stairwell pressurization and no other mechanical smoke control system in the building, it is not taller than 420 feet, and the floor plate is consistent from floor level to floor level, then Austin Fire may accept traditional algebraic equations.

CITY OF AUSTIN FIRE PROTECTION RULE FP8

Internation Fire Code (LDC Chapter 25-12, Article 7), Reference Section 1010.2.6 and 508.1.6, as amended by the City of Austin

Where interior stairway means of egress doors are electrically locked or equipped with access control hardware on the stair side, a fire department security override switch shall be provided at the level of exit discharge of that stair.

1. The fire department security override switch shall consist of a maintained (toggle-type) switch located inside an approved Knox key box.
2. The Knox key box containing the override switch shall be located on the exterior side of the building, adjacent to the stairway exit discharge door it serves, at a readily visible and accessible location approved by the Fire Code Official.
3. Activation of the override switch for a stairway shall simultaneously unlock, without unlatching, all electrically locked or access controlled-stairway doors throughout the building. The doors shall remain unlocked until the system is manually reset.
4. Required signage reading “FIRE DEPT. SECURITY OVERRIDE” shall be permanently mounted and maintained not more than 6 inches above the Knox key box. The sign shall be constructed of durable, all-weather materials, with white letters not less than 1 inch in height on a red background.
5. The override switch shall be integrated so that any single override switch activation for a given stairway affects all associated electrically locked doors for that stair.
6. Electrically locked stair doors shall unlock simultaneously upon activation of a fire alarm signal when a fire alarm system is present in an area served by the stairway.
7. Electrically locked stair doors shall unlock upon failure of the power supply to the electrical lock or locking system.
8. Stairway exit doors shall be openable from the egress side at all times and shall only be locked from the opposite side of egress in Group B, F, M, R-2, and S occupancies where the only interior access to the tenant space or dwelling unit, is from a single exit stairway where permitted in Section 1006.3.4.

9. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.

This section is intended to ensure that fire department personnel can gain entry through all access-controlled (electrically locked) stair doors during emergency operations, while maintaining normal security during non-emergency conditions.

CITY OF AUSTIN FIRE PROTECTION RULE FP9

International ~~Fire~~ Building Code (LDC Chapter 25-12, Article 17), Reference Section 909403.4.7

All tempered glass panels required for smoke removal shall be identified by an ~~City of~~ Austin Fire ~~Department~~ approved window sticker located in the lower right-hand interior corner of the panel. The stickers shall be placed with the center of the sticker three (3) inches from the bottom and right edges of the panel.

An Austin Fire ~~Department~~ approved window sticker shall be two (2) inches in diameter circle T. The T and border shall be red in color with a white reflective background. A sample of the stickers to be installed shall be submitted to ~~the City of~~ Austin Fire ~~Department~~ for approval prior to installation (See 901S-4 in the City of Austin Standards Manual).

~~CITY OF AUSTIN FIRE PROTECTION RULE~~

~~International Fire Code (LDC Chapter 25-12, Article 7) Reference Section 907.2.14 and 909~~

~~Atria shall be provided with mechanical smoke exhaust systems designed in accordance with the requirements of International Building Code (LDC Chapter 25-12, Article 1) Sections 404 and 909. Atrium smoke control exhaust and supply systems shall be activated by any required smoke detectors installed in the atrium and in areas open to the atrium. In addition to activation by these smoke detectors, atrium smoke exhaust systems may also be activated by the zoned sprinkler system in the atrium, and shall also be activated by the sprinkler system in areas open to the atrium.~~
~~The atrium supply and exhaust equipment all have a listed three (3) way manual off, on, automatic switch(es) for Fire Department use located at the fire alarm panel.~~

6.7.~~1~~2 NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 13 AND LOCAL AMENDMENTS

The following rules pertain to Standard for the Installation of Sprinklers NFPA 13.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA1

~~Austin~~ International Fire Code (LDC Chapter 25-12, Article 7), the currently adopted edition of NFPA 13, Reference Section 16.4.1.4, NFPA 13R Reference Section 6.7.2.2, & NFPA 13D Reference Section 9.1.2.1 ~~Also Reference IBC Section 903.3.1.1, 903.3.1.2, and 903.3.1.3~~

When heat tracing of wet pipe is utilized to prevent freezing, such UL listed heat tracing systems shall be ~~a pre-engineered UL listed system or heat tracing shall be~~ designed by a registered professional engineer or designed by a manufacture for a specific application. If a selective software program is utilized to perform the heat loss calculation and select the appropriate heat cabling output rate, the submittal will be considered engineered design submittal.. The design, ~~whether engineered or pre-engineered~~, shall be approved by ~~the~~ Austin Fire ~~Department~~ prior to installation.

Engineered design submittals shall be sealed by the Engineer, and shall include the following:

~~6.7.1.~~1. A full set of calculations outlining all temperature and heat loss assumptions.
~~6.7.1.~~2. A plan showing the extent and location of the heat tracing equipment.
3. Data sheets for the heat tracing equipment, insulation material, and protective covering (as applicable).
~~6.7.1.~~34 One line electrical drawing showing the interconnection of the equipment.

~~Pre-engineered heat tracing system~~ Manufactured design submittals shall include the following:

~~6.7.1.4~~1. Data sheets for the heat tracing equipment
~~6.7.1.5~~2. A complete copy of manufacturer's installation instructions,
~~6.7.1.6~~3. A plan showing the extent and location of the heat tracing equipment.
~~6.7.1.7~~4. A complete bill of materials,

The heat traced pipe temperature shall be monitored for low temperature and power loss by an approved fire alarm panel or fire sprinkler monitoring system. ~~and shall provide a~~ A supervisory signal shall transmit to ~~at~~ an approved constantly attended location when the pipe temperature drops below 40° F or power loss.

The heat ~~tracing tape~~ trace cabling shall be wrapped with insulation material. ~~Insulation of pipe by itself shall be reviewed on a case-by-case basis.~~

CITY OF AUSTIN FIRE PROTECTION RULE NFPA2

International Fire Code (LDC Chapter 25-12, Article 7), the currently adopted edition of NFPA 13 Reference Section 16.4.1.5 & NFPA 13R Reference Section 5.4.4

Heat loss calculations performed by a Texas licensed fire protection engineer to verify the system will not freeze shall meet the following:

1. Austin Fire interprets “the system will not freeze” as the internal water temperature will not reach 32°F.
2. The exterior ambient temperature shall be based on the ASHRAE Fundamentals Handbook dry bulb minimum mean under 5-year extreme annual design conditions for Austin/ Bergstrom, TX
3. A freezing time period of 35 hours is assumed based on the most current ASHRAE Fundaments Handbook and/or Climatic Conditions website.
4. Initial internal water temperature of 40°F.
5. All other design parameters shall be clearly stated along with manufacture data sheets or literature references from which the values were obtained.
6. Heat loss formulas or computer modeling software may be utilized from an established and industry-accepted source.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA3

~~Austin~~ International Fire Code (LDC Chapter 25-12, Article 7), ~~NFPA 13, Reference Section 4.2 and 8.1.1 ),~~ the currently adopted edition of Internation Fire Code Section 904.2

All portions of buildings required by the Building Code (LDC Chapter 25-12, Article 1) to be sprinkled shall be fully protected by an approved automatic sprinkler system. The sprinkler system may be augmented but not replaced by other alternative automatic fire-extinguishing systems, fixed extinguishing systems, except by an approved alternate method of compliance.

If a sprinkler system is augmented by an alternative automatic fire-extinguishing system ~~a CO2 or Halon replacement (clean agent) gas system,~~ the temperature rating of sprinkler heads in the subject area/room may be increased to the next higher rating as described in NFPA 13 Section 9.4.2.5 ~~Tables 8.3.2.5(a) and 8.3.2.5(b).~~

~~The use of local application sprinkler systems shall be approved by the Fire Marshal. Local application sprinkler systems shall be limited to areas of 1000 square feet or less and may be used for the protection of hazardous processes or areas.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference NFPA 13, Chapters 7 and 8 GENERAL SYSTEM REQUIREMENTS~~
~~A water flow test of the sprinkler water supply shall be submitted to the Fire Prevention Division for evaluation of the acceptability of the water supply for the given application.~~

~~Sprinkler system designs shall be hydraulically calculated. The calculations shall demonstrate a minimum 10 PSI buffer, and shall include outside hose stream demand in accordance with NFPA Standard No. 13, 2013 edition.~~
~~Backflow prevention shall be required pursuant to the Uniform Plumbing Code.~~
~~A Fire Department Connection is not required for stand-alone local application systems using less than 20 heads.~~

~~The design and installation of a local application sprinkler system shall meet these requirements and the requirements of NFPA Standard No. 13, 2013 edition.~~

~~Local application sprinklers shall not be used in lieu of automatic fire-extinguishing systems required in Chapter 9 of the International Building Code and Chapter 9 of the International Fire Code.~~

CITY OF AUSTIN FIRE PROTECTION RULE NFPA4

International Fire Code (LDC Chapter 25-12, Article 7), the currently adopted edition of NFPA 13, Reference Sections 17.1.2 and 17.4.1.3.1

All requirements of NFPA 13 Chapter 17 for installation of hangers and support of system piping shall be included in submitted plans and documents. If a hanger is not UL listed, then it must be certified by a Texas registered professional engineer to include all the requirements set forth in Section 17.1.2.

Details and components of hangers and how mechanism of attachment to the structure shall be submitted for review and shall be the exact elements that will be installed. Hanger type(s), location(s), attachment method, fasteners used and spacing shall be project specific. Generic details/tables copied and pasted from referenced

standards or other publications will not be accepted. Manufacturer-specific details, for the appropriate sprinkler piping size, may be submitted in lieu of calculations.

In addition, calculations from a Texas registered professional engineer shall be submitted for review demonstrating that the supporting structural framing members can withstand the additional weight of the water-filled pipe plus 250 lbs as outlined in Section 17.4.1.3.1.

Fire inspectors will reference the approved hanger components and spacing to inspect the installation.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA5

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 315.3, 315.3.1 and the currently adopted edition of NFPA 13 Reference Sections 10.2.8 & 10.2.8.1

In buildings designed for use as a public storage facility, or similar use, a physical barrier shall be placed at least 18 inches below the sprinkler deflector to allow for proper sprinkler activation and pattern development. The barrier shall consist of a non-combustible material with contiguous openings of no less than 1 inch such as chicken wire, hog wire or other similar material. The barrier is only required in actual storage units not in corridors and non-storage locations.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA6

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 901.4, 901.4.1, 903.3.1.3 and the currently adopted edition of NFPA 13D

In buildings equipped with an automatic sprinkler system installed in accordance with NFPA 13D, a bucket test of the most demanding design area shall be performed during the initial system acceptance test to confirm the operational status of the sprinkler system.

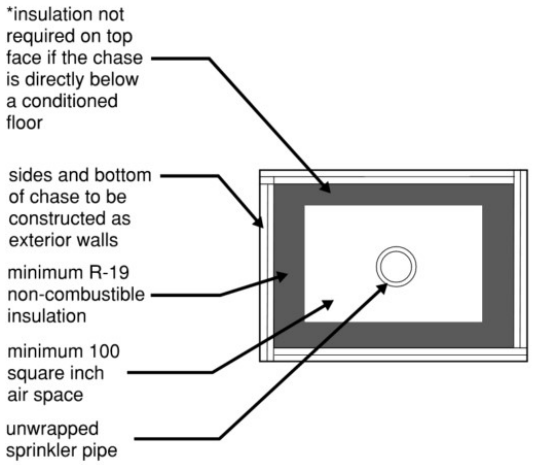
CITY OF AUSTIN FIRE PROTECTION RULE NFPA7

International Fire Code (LDC Chapter 25-12, Article 7), the currently adopted editions of NFPA 13, Reference Section 16.4.1.3 and 16.4.1.5, and NFPA 13R, Reference Section 5.4.2.

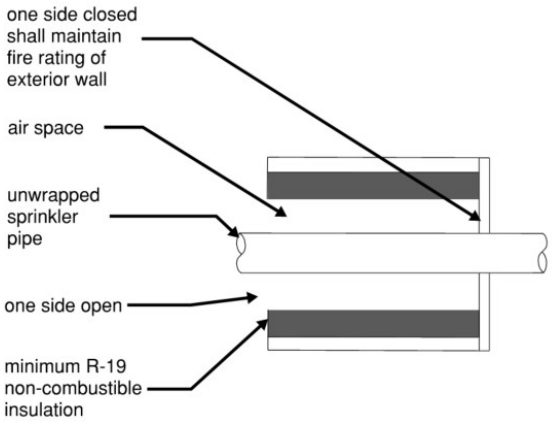
Where interior chases, heated areas, dry pipe systems, heat tracing or a listed anti-freeze system are not feasible Austin Fire will allow the addition of horizontal insulated fire sprinkler pipe chases for freeze-protection of fire sprinkler piping. This solution is limited to a fire sprinkler main located within the ceiling cavity of an open unconditioned breezeway/corridor that supplies two or more dwelling units in a multifamily building. The insulated chases must span less than 10 feet and are required to meet the following:

1. Have an open area of no less than 100 square inches to the adjacent above ceiling space to one unit. The open side of the chase will communicate with the tempered air in the interstitial space above the dwelling units and by definition will be considered an indirectly heated space. The 100 square inch open area shall be maintained throughout the length of the chase.
2. Insulation shall be non-combustible.
3. The opposite side of the chase will be required to be fire-stopped to maintain the fire rating of the exterior wall as required by the International Building Code.
4. The insulated chase shall have a clear span no more than 10 feet.
5. The sides and bottom of the chase will be considered exterior walls and will need to be constructed as such.
6. The top, bottom and sides of the insulated chase shall have insulation with a minimum insulating value of R-19. The insulated material shall be constructed in a way that it will not sag or drop over time and must be able to maintain the manufacturer specified thickness.
7. The chase shall have no changes in direction.
8. The chase shall only contain fire sprinkler piping.
9. No insulation (e.g. Armaflex or similar product) is required on the water-filled piping. This is derived on the definition of indirectly heated space from the International Energy Conservation Code (IECC). The pipe shall not be wrapped in insulation.

The following illustration is a graphical representation of the requirements listed above:




INSULATED CHASE SECTION
*for chases with clear span less than 10 ft.
*chase shall not change direction




INSULATED CHASE ELEVATION
*for chases with clear span less than 10 ft.
*chase shall not change direction

When this design option is utilized, the architectural plans submitted for issuance of a building permit shall include a detail indicating the insulation type, construction of the chase, and overall dimensions (LxWxH) of the chase.

For insulated chases spanning greater than 10 feet, or with a clear opening of less than 100 square inches, heat loss calculations shall be required. Heat loss formulas or computer modeling software may be utilized from an established and industry-accepted source. These methods shall be clearly identified in the design. Calculations shall be sealed by an engineer and shall include all design conditions, including temperature and heat loss assumptions, as well as comprehensive output data. The design parameters for heat loss calculations shall be as follows:

1. The interior heated space shall have a design temperature of 40 deg F.
2. The exterior ambient temperature shall based on ASHRAE Fundamentals Handbook dry bulb minimum mean under 5-year extreme annual design conditions for Austin/ Bergstrom, TX. This information may also be obtained using the ASHRAE Climatic Conditions website.
3. The temperature in which the water in the pipe will freeze is 32 deg F.
4. A freezing time period of 35 hours is assumed based on the most current ASHRAE Fundaments Handbook and/or Climatic Conditions website.
5. The submitted design will be required to prove the amount and type of insulation will prevent freezing of the water filled pipe given the above-stated conditions.

Heat loss calculations can also be submitted with an accompanying design in place of the insulated chase outlined in the previous section for spans less than 10 feet.

If Austin Fire deems that calculation methods are impractical, required temperature monitoring may be considered as an alternate solution.

Prior to the fire final inspection, the designing professional engineer shall provide a signed and sealed concurrence letter/report to the Austin Fire reviewer who originally approved the automatic sprinkler plans. This letter/report must indicate they have inspected the insulated chase and attest that it has been constructed and installed as designed. Within the letter/report, the engineer shall provide the insulated chase detail, insulation data sheets, pictures of the installation, and the originally sealed calculations. An administrative hold will be placed on the fire protection system permit to ensure this letter is provided to Austin Fire.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA8

International Fire Code (LDC Chapter 25-12, Article 7), Reference 903, 905, the currently adopted editions of NFPA 13 Section 16.9.7 and NFPA 14 Section 10.2.4

Pressure regulating devices (PRD) are required to be reviewed and approved at the time of the automatic sprinkler or standpipe submittal.

A separate sheet shall provide installation details for these devices and a table indicating the inlet and outlet pressures based on non-flowing (Static/Churn) and flowing conditions determined by hydraulic calculations. At a minimum, the table shall include the following information:

1. Hydraulic node label
2. Elevation above finished grade
3. Pressure regulating device (PRD) serving either a standpipe hose connection or sprinkler control valve assembly
4. Inlet static pressure at 0gpm or churn
5. Inlet residual pressure at full standpipe flow
6. Inlet residual pressure at 250gpm flow
7. PRD size in inches
8. PRD Valve model number
9. PRD valve pressure setting
10. Outlet static pressure at 0gpm or churn
11. Outlet residual pressure at full standpipe flow
12. Outlet residual pressure at 250gpm flow

An additional Column for AHJ field verification shall also include the following:

1. Static pressure at 0gpm
2. Residual pressure at full standpipe flow
3. Residual pressure at 250gpm flow

The following hydraulic calculations shall be included with the resubmittal:

1. Static-zero flow (static) calculation
2. Standpipe full flow with safety factor calculation
3. Standpipe full flow with no safety factor calculation
4. Standpipe flowing 250gpm with safety factor calculation
5. Manual standpipe calculation

For additional guidance, refer to the “Austin Fire Guidance for Utilizing Pressure Regulating Devices (PRD) in High Rise Buildings” located on the Austin Fire Marshal’s Office website.

## 6.~~4.2~~7.3 NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 14 AND LOCAL AMENDMENTS

The following rules pertain to the Standard for the Installation of Standpipe Systems NFPA 14.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA9

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 905.3, the currently adopted edition of NFPA 14, Reference Sections 5~~9~~.1 and 10~~7~~.2.1.

The following shall be used in the design of Class I standpipe systems requiring the use of a Fire Department pump to operate at the required flows:

A. For buildings other than high rise structures, the system pressure demand at the Fire Department Connection (FDC) inlet shall not exceed 150 psi (10.3 bar) regardless of the required flow. For high rise buildings the system pressure demand at the FDC inlet shall not exceed ~~350~~ 400 psi (24 bar) regardless of the required flow.

B. Verification of the pressure demand at the required flow (as noted in A above), through the use of hydraulic calculation methods, shall be submitted to ~~the City of~~ Austin Fire ~~Department~~ for review and approval.

C. If the required flow for standpipe systems exceeds the flow of water available at 20 psi (1.4 bar) residual pressure from the water supply system, an auxiliary water supply will be required.

CITY OF AUSTIN FIRE PROTECTION RULE NFPA10

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 202, 905.8 & the currently adopted edition of NFPA 14 Reference Sections 3.3.28.4 & 8.3.2

In accordance with the 2024 International Fire Code and the 2024 NFPA 14, a dry manual standpipe shall not have a permanent water supply attached. A check valve cannot be used as a means of separation. The dry manual standpipe shall be a stand-alone system with a dedicated Fire Department Connection (FDC). The dry manual standpipe shall receive all of its water supply and pressure from the fire department connection connected to the fire department apparatus.

~~6.4.3 NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS 20~~
~~The following rules pertain to the Standard for the Installation of Fire Pumps NFPA 20.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~International Fire Code (LDC Chapter 25-12, Article 7), Reference Chapter 47, NFPA 20, Reference Section 4.14.4.~~
~~All fire pump systems connected to the public utility shall be provided with a by-pass line.~~

~~CITY OF AUSTIN FIRE PROTECTION RULE~~
~~Uniform Fire Code (LDC Chapter 25-12, Article 7), Reference Chapter 47, NFPA 20, Reference Section 4.20.1.~~

~~All fire pump systems shall be provided with a test header (or hose valve) which is piped to the exterior of the structure. The site in the vicinity of the test header shall be designed to account for the drainage of water of not less than 150 percent of the maximum pump capacity rating.~~

SECTION 7 INSPECTIONS

## 7.1.0 GENERAL

A. Fire inspections will be performed in all new and existing occupancies which include places of public assembly, educational, institutional, residential (not including private dwellings), mercantile, business, industrial, manufacturing and storage.

A fire inspection shall be performed on any structure, commercial or residential, located in the WUI area as defined in the WUI Code. Inspections will be performed for all new, remodeled and, in some cases, existing structures for compliance with the WUI Code. WUI Code inspections will cover all structures, both residential and commercial, regardless of the occupancy type.

B. Inspection methodology employs application of fire protection and prevention principles, education and instruction of the public regarding fire safety practices and code requirements and enforcement of codes.

C. The purpose for these inspections is to provide a reasonable degree of safety to life and property from fire through the detection and elimination of those conditions that create or increase the hazard of destructive fire. In addition, these inspections will familiarize the public in fire safety practices and requirements thereby increasing their awareness of the fire problem so they may eliminate hazardous conditions before they occur.

~~Source: Rule No. R161-21.05, 3-22-2021.~~

## 7.2.0 INSPECTION PROCEDURES

In addition to routine general maintenance inspections, inspections shall be performed when requested by the contractor, owner or occupant. The requester is responsible for providing all specialized equipment required to complete the inspection. Additionally, the Fire Prevention Division of ~~the~~ Austin Fire ~~Department~~ will conduct inspections in response to citizen's complaints.

### 7.2.1 Site Inspections

Site inspections will be performed during the construction or development of the facilities, structures or sites. The following items shall be installed and rendered operational prior to combustible construction materials being brought onto the site:

A. Address numbers, building numbers and letters shall be prominently displayed as specified in Section505.1 of the Fire Code and the rule in Section 4 of this manual associated with Fire Code Section 505.

B. All Fire Department roads or alternate access shall be complete and unobstructed in accordance with Fire Code Section 503 and the rules in Section 4 of this manual related to Fire Department access roads.

C. Required fire hydrants (interim or permanent) shall be properly installed and fully operational as per City of Austin approved water construction documents.

1. A fire hydrant flow test may be conducted as deemed necessary by ~~the City of~~ Austin Fire ~~Department~~ to verify the adequacy of the water supply as required by Section 507 and Appendix B of the Fire Code.

2. All installed fire protection equipment shall be maintained as per Sections 901.4, 901.6, 901.7, 901.9, 903.5, 904.1, 904.5, 904.6, 904.7, 904.8, 904.9, 904.10, 904.11.6, 906.2, 907.1, 907.8, 909,910.5, 912.6, and 913.5 of the Fire Code.

D. Approved water construction documents shall be maintained on site at the construction office for inspector's review as necessary.

1. Private fire service water mains shall be installed in accordance with NFPA 24 and shall be hydrostatically tested for two (2) hours. This hydrostatic test shall be witnessed by an inspector for ~~the City of~~ Austin Development Services ~~Department~~, Plumbing Inspections Section.

E. When located in a WUI area, an inspector will check for compliance with the WUI Code requirements as detailed on the approved site plan.

~~Source: Rule No. R161-21.05, 3-22-2021.~~

7.2.2 Certificate of Occupancy Inspections

Ccertificate of Ooccupancy inspections will be conducted on all structures prior to any occupant use or storage in the structure. The two (2) types of Ccertificate of Ooccupancy inspections conducted are shell building and tenant finish-out inspections. Only one (1) Ccertificate of Ooccupancy inspection may be necessary when only one (1) tenant is to occupy the building.

A. Shell Building Certificate of Occupancy Inspections

Shell building Ccertificate of Ooccupancy inspections are conducted on the base building(s) to ensure that all previously approved construction documents have been adhered to. The following items will be inspected and/or tested during the shell building Ccertificate of Ooccupancy inspection:

1. Approved building construction documents on site.
2. Stairway(s) complete, unobstructed and signage provided.
3. Exit lights installed and operational.
4. Emergency lights installed and operational.
5. Doors/assemblies installed and operational.
6. Means of egress complete to the satisfaction of ~~the Planning and~~ Austin Development Services ~~Review Department~~ and unobstructed.
7. Any other requirements particular to occupancy (i.e., hazardous materials, storage, manufacturing, etc.).
8. Fire Extinguishers.
   a. Verify installation of proper size, type and classification of fire extinguishers.
   b. Verify proper location, accessibility and visibility of fire extinguishers.
   c. Verify extinguisher servicing is current, including servicing company's name, address and license number on extinguisher tag.
9. Test the fire protection systems and components in accordance with fire protection system inspection contained in Sections 3.2.10 and 3.2.11.

B. Tenant Finish-Out Certificate of Occupancy Inspections

Tenant finish-out Ccertificate of Ooccupancy inspections are conducted on an individual lease area to ensure that all previously approved construction documents have been adhered to. The following items will be inspected and/or tested during the tenant finish-out Ccertificate of Ooccupancy inspection:

1. Verify that the shell-building Ccertificate of Ooccupancy inspection has been conducted and approved.
2. Verify approved construction plans for tenant space on site.
3. Verify construction as per approved plans; including all fire protection systems installed, means of egress maintained, etc.
4. Occupancy load card, if applicable, displayed near main entrance.
5. Verify all other uses or processes peculiar to occupancy (i.e., hazardous materials, storage, manufacturing, etc.) comply with appropriate code and rules.
6. Test the fire protection systems and components in accordance with fire protection system inspection contained in Sections 3.2.10 and 3.2.11.

7.2.3 General Fire Safety Inspections

General fire safety inspections are performed on all existing structures. These inspections apply to all structures with the exception of single and two (2) family properties as well as the interior of residential portions of multifamily structures.

Such inspections are performed to examine compliance with the Fire Code. Violations of other City codes may also be noted during inspection and referred to appropriate staff. Typical inspection procedures include, but are not limited to, the following:

A. General Inspections

1. Verify the proper size, type and number of portable fire extinguishers on hand. These extinguishers shall be properly mounted and properly serviced, within the immediately previous 12 months, and shall be ready for immediate use.
2. Verify accumulations of combustible waste are not present.
3. Verify cooking appliances are devoid of grease.
4. Verify approved means of egress are not blocked. Egress doors shall not be locked and means of egress are not used for storage.
5. Verify that enclosed stairways have required identification and access signs.
6. Verify exit signs are illuminated and in working order.
7. Verify “no smoking” signs are posted at appropriate locations and smoking is allowed only in designated areas.
8. Verify flammable/combustible liquids are kept in approved safety containers and stored in an approved manner.
9. Verify combustible waste, soiled rags, etc., are stored in approved metal containers.
10. Verify solvents used in cleaning procedures are of the correct type as regulated by the Fire Code.
11. Verify all combustible decorations, including drapes and curtains, are adequately treated for fire resistance.
12. Verify all compressed gas cylinders are stored/used properly.
13. Verify approved forms of address are posted and maintained on all buildings and visible from the street.
14. Verify occupant load cards are posted near the main entrance in places of public assembly and that authorized occupant loads are not exceeded.
15. Verify Fire Department access roadways, fire hydrants and fire-fighting appliances are not obstructed.
16. Verify heating appliances are maintained in proper working order.
17. Verify fire protection systems have been maintained in working order and serviced as required for the existing use and hazard type.
18. Verify approved fire evacuation plans are posted at conspicuous locations in high rise buildings and buildings of public assembly when required by the Fire Chief.
19. Verify all gas meters are properly protected from vehicular damage.
20. Test the fire protection systems and components in accordance with fire protection system inspection contained in Section 3.2.10 and 3.2.11.

B. School Inspections.

The general procedures used during the inspection of a facility are the same as for the General Fire Safety Inspection outlined in Section 3.2.3 above as well as the items listed below:

1. Verify fire alarm systems and associated devices have been tested quarterly by a qualified person. In addition, verify the staff has conducted monthly service tests on this equipment and notified a qualified person when problems were detected. All tests, maintenance and repairs are to be clearly documented and certified using documents contained in this manual and made available on site for viewing by the fire inspector.
2. Verify the school's emergency evacuation and relocation plans are posted in each room for occupant's use. The schools must practice a fire drill in accordance with state law.

3. Verify emergency numbers for fire, police and ambulance are posted near the telephone in office area.

4. Verify proper storage of flammable fuels and solvents and fuel-powered equipment.

C. Storage Inspections

The general procedures used during the inspection of a storage facility are the same as for the General Fire Safety Inspection outlined in Section 3.2.3 above as well as the items listed below:

1. Verify the classification and configuration of storage is compatible with the fire protection provided.

2. Verify incoming goods are stored promptly and safely so as not to pose a fire or existing hazard.

3. Verify boxes and idle pallets are stored properly.

4. Verify United States licensed warehouses have evacuation plans posted.

5. Verify fire extinguishers are properly identified.

6. Verify fire doors operate freely and/are not blocked open.

7. Verify the proper type and classifications of forklifts are being used and that they are properly maintained with a 2.5 lb. ABC fire extinguisher and properly refueled.

D. Manufacturing Inspections

The general procedures used during the inspection of a manufacturing facility are the same as for the General Fire Safety Inspection outlined in Section 3.2.3 above as well as the items listed below:

1. Verify all equipment is free of waste and residual production material and debris.

2. Verify all the handling and removal of all waste and residual production material and debris is done properly.

3. Verify all required ventilation components and/or systems are operational and properly maintained.

4. Verify all electrical equipment and appliances are maintained and carry the listings and ratings required by the Electrical Code.

5. Verify proper housekeeping is practiced so as to avoid fire hazards.

6. Verify the proper use, handling and storage of flammable and combustible gases, liquids and solids used in the manufacturing and maintenance processes.

7. Verify the required permits are posted.

E. High-rise Inspections

The general procedures used during the inspection of a high-rise building are the same as for the General Fire Safety Inspection outlined in Section 3.2.3 above as well as the items listed below:

1. Verify fire alarm and detection systems are maintained in working order as approved.

2. Verify communication systems are maintained in working order as approved.

3. Verify control equipment within the central control station is maintained as approved.

4. Verify elevator recall and fire fighter's control systems are maintained as approved.

5. Verify standby power, light and emergency systems are maintained as approved.

6. Verify for exits and exit ways:

   (A) Where applicable, stairwell door locking systems are operating and maintained as approved.

   (B) Where applicable, stairwell telephones/two way communication systems are operating and maintained as approved.

   (C) Verify smokeproof enclosures and/or shaft pressurization systems are operating and maintained as approved.

7. Handicap Provisions. In applicable R-1 occupancies, provisions are made for displaying the room numbers occupied by handicapped persons.

7.2.4 License Inspections

Selected occupancies require the issuance of a license from various city, county and state agencies. For these licenses to be issued, fire safety inspections must be performed. The typical license requirements are listed below.

A. Wine and Beer

A wine and beer inspection pursuant to the Austin City Code Chapter 4-9 is for the purpose of obtaining a permit to sell alcoholic beverages. The general procedures used during the inspection of a premises for a wine and beer license are the same as for the General Fire Safety Inspections outlined in Section 3.2.3 above.

B. Day Care

A day care facility inspection is for the purpose of obtaining a permit to tend for children or adults. The guidelines used during the inspection of a premises for a day care facility license are the same as for the General Fire Safety Inspections outlined in Section 3.2.3 above, in addition to the State requirements set forth in “Minimum Standards for Day Care Centers” published by the State of Texas, Department of Human Services.

C. Nursing Homes

A nursing home facility inspection is for the purpose of obtaining a State issued permit to care for and tend to adults or children. The guidelines used during the inspection of a premises for a nursing home facility are the same as for the General Fire Safety Inspections outlined in Section 3.2.3 above as well as the requirements of the State of Texas (see Nursing Home Licensing Standards).

D. Hospitals

A hospital inspection is for the purpose of a state issued permit to operate an emergency medical care facility. The guidelines used during the inspection of a premises for a hospital are the same as for the General Fire Safety Inspections outlined in Section 3.2.3 above as well as the requirements of the State of Texas (see Hospital Licensing Standards).

7.2.5 Complaint Inspections

When a complaint has been received from a citizen, an inspector will contact the owner of the property/ equipment and inspect the property/equipment in question. If the condition is found to be a violation of the Fire Code, or the WUI Code, the inspector will issue an order to bring the property into compliance with the applicable code. A date for re-inspection to confirm compliance will be given at the time of compliance order.
~~Source: Rule No. R161-21.05, 3-22-2021.~~

7.2.6 Night Inspections

A. This type of inspection is performed where the occupant load is near capacity during the evening hours, (i.e., nightclubs, drinking and dining establishments), other places of assembly (theaters, auditoriums, etc.) or buildings or facilities which can only be checked at night (i.e., offices with irregular hours, etc.).

B. The general procedures used during the inspection of premises for night inspections may include those procedures outlined in Section 3.2.3 "General Fire Safety Inspections", above, but primarily involve the following:

1. Verify the exiting system is unlocked, unobstructed exit signs illuminated and aisles leading to exits have required unobstructed width.

2. Verify no more people are inside the building than what is indicated on occupant load card(s).

3. Verify the fire protection systems are operational and maintained according to the Fire Code.

7.2.7 Reinspections

A. The reinspection is the follow up to all other inspections. This inspection is to determine if the Fire Code violations noted on the previous inspection report have been corrected. If these violations are corrected, the inspector notes that all violations indicated have been corrected and delivers a copy to owner.

B. If the inspector determines that substantial progress is being made to correct these violations and that the immediate hazard to life and property has been abated, he will report such progress to his supervisor who may give the owner or representative of the business additional time to comply with the Fire Code.

C. If an insufficient attempt has been made to correct the noted hazards by the given reinspection date, appropriate action will be taken.

7.2.8 Substandard Housing and Vacant Building Inspections

The issuance of a minimum standards permit requires Austin Fire's ~~Department~~ participation in all cases referred by ~~the Planning and~~ Austin Development Serivces ~~Review Department~~. The inspection includes a check of any fire hazards of said property or building. Following is a general list of inspection items:

A. Verify the occupant, upon vacating or abandoning any premises, has removed any and all noxious and hazardous material or waste matter which has been deposited, allowed to come to rest or permitted to accumulate thereon and such premises has been left in a clean and neat condition.

B. Verify every person owning or in charge or control of the vacant building has removed all accumulations of flammable or combustible waste or rubbish from the building and has securely locked, barricaded or otherwise secured doors, windows and other openings.

C. When the structure is occupied, general fire safety inspection items shall also apply.

7.2.9 Fire Protection System Inspections

A. Fire protection systems installed in the jurisdiction of the City of Austin shall be inspected prior to the issuance of the C~~c~~ertificate of O~~c~~ccupancy for the building, structure or space and on a periodic basis as outlined in Section 3.2.10. Such inspections are performed at the owner's expense by qualified personnel as specified in the following inspection schedule. The owner must test all fire protection systems under his ownership.

B. It will be the responsibility of the owner to schedule all tests with the qualified personnel and to notify ~~the~~ Austin Fire's ~~Department~~ Fire Marshal's office at least one (1) week in advance of the annual sequence tests, and at least two (2) day~~'~~s' notice for system inspection tests for the C~~c~~ertificate of O~~c~~ccupancy. The Austin Fire Department may decline to attend fire protection system tests.

C. Upon completion of the inspection(s), the appropriate Austin Fire ~~Department~~ fire protection system forms will be completed in duplicate. One (1) copy of the inspection form shall be available at the occupancy for Fire Department Inspection. When requested, the owner shall provide the Austin Fire Department with duplicates of the inspection form.

7.2.10 Fire Protection Equipment Inspection Schedule

| Type of System | Test Frequency | Qualified Personnel |
|---|---|---|
| Fire Alarm and Detection System | Annually, Semiannually, quarterly, and monthly in accordance with NFPA 72 | State Licensed Fire Alarm Company, except monthly and quarterly tests by building engineering staff when approved by AFD |
| Magnetic Locks and Stairway Door Locks | Annually (quarterly function test by building engineering staff for high rise buildings) | * Building Engineering Staff |
| Fire Pump | Annually (quarterly function test by building engineering staff for high rise buildings) | State Licensed Automatic Sprinkler Company |

| | | |
|---|---|---|
| Standpipes | 5 year, Annually, quarterly and monthly in accordance with NFPA 25 | State Licensed Automatic Sprinkler Company, or Licensed Master Plumber (for Independent Standpipe Systems only) Quarterly and monthly tests may be by building staff when approved by AFD |
| Automatic Sprinklers | 5 year, Annually, quarterly and monthly in accordance with NFPA 25. | State Licensed Sprinkler Company. Quarterly and monthly tests may be by building staff when approved by AFD. |
| Shaft Pressure | Annually (quarterly function test by building engineering staff for high rise buildings) | Special Inspection Agency or Service |
| Emergency Generators | Annually (quarterly function test by building engineering staff for high rise buildings) | Licensed Master Electrician or authorized Generator Company Service Representative |
| Elevators | Annually (quarterly function test by building engineering staff for high rise buildings) | Elevator Company Service Representative (or as approved by Building Official) |
| Tempered Windows/Smoke Removal | Annually (quarterly function test by building engineering staff for high rise buildings and atrium systems) | Building Engineering Staff (Tempered Windows Only), or Special Inspection Agency or Service |
| Sequence Test | Annually | Austin Fire Dept. |
| Foam Systems | Annually/5 year | Licensed Fire Protection System Co |
| Fire Escape | 5 year (annual function test by building engineer) | Licensed Professional Engineer |
| Halon, CO2 or Halon Alternative Agents | Annually | Licensed Fire Protection System Company |
| Range Hoods | Semi-annually | Licensed Fire Protection System Company |
| Dry Chemical | Semi-annually | Licensed Fire Protection Systems Company |
| Evacuation Plans | Annually | Austin Fire Dept. |
| Fire Hydrants | Annually | W&WW Approved Organization of Contractors |
| * Building engineering staff is acceptable provided a responsible person is designated who has specialized knowledge of the system being inspected and any related building systems which may be present. | | |

7.2.11 Criteria for System Tests

The procedures listed here and on the Certification Testing Report forms are not necessarily all-inclusive and may vary with the particular system. (See Appendix B)

A. Fire Alarm and Detection Systems

Fire alarm systems shall be tested and certified annually. All certifications shall be conducted by a fire alarm company licensed by the State of Texas. Quarterly function tests may be performed by the building engineering staff for high-rise buildings. The following system components and operations shall be tested as outlined:

1. Verify fire control alarm panel is operational.
2. Verify visual indicators in alarm panel are operational.
3. Verify proper zoning of system and zones are properly identified on control panel.

4. Verify all smoke detectors are operational.
5. Verify all heat detectors are operational.
6. Verify flame detectors are operational.
7. Verify every manual pull station is operational.
8. Verify water flow tamper switches are operational.
9. Verify all audio and/or visual devices are operational.
10. Verify voice/alarm speakers are operational.
11. Verify fire department communication system is operational.
12. Verify sprinkler system supervisory devices are operational.
13. Verify supervisory system circuits are operational and remove random devices to test trouble systems.
14. Verify primary power supply is operational.
15. Verify secondary power supply is operational.
16. Verify amplifier is operational.
17. Verify voice warning tape is operational.
18. Verify all radio fire alarm transmitting equipment and devices are operational.
19. Verify radio fire alarm receiving equipment is operational.
20. Verify battery water level is correct, if applicable.
21. Verify fuse ratings are correct.
22. Verify rechargeable battery cell voltages are correct.
23. Verify remote annunciators are operational.
24. Verify operation of signal monitoring supervisory service.
25. Verify alarm audibility has not been impaired.
26. Verify all interconnected equipment functions as required.
27. Verify approved plans are available on site (for Ccertificate of Oeccupancy).
28. Verify installation of system procedure in accordance with approved plans (for Certificate of Oeccupancy).

B. Stairway Door Locks

Stairway door lock systems shall be tested and certified annually. All certifications shall be conducted by the building engineering staff. The following system components and operations shall be tested as outlined:

1. Verify/ensure all locks release upon fire alarm, if applicable.
2 Verify all locks release upon power failure.
3. Verify required door keys are available at a central location (control room).
4. Verify roof door(s) unlock on fire alarm, if applicable.

C. Fire Pumps

Fire pump systems shall be function tested quarterly, and tested and certified annually using the appropriate AFD certification testing report form or an approved alternate. All certifications shall be conducted by an automatic sprinkler company licensed by the State of Texas. Quarterly function testing for high-rise buildings may be conducted by the building engineering staff. The following system components and operations shall be tested as outlined:

1. Verify and record the starting and running amperage on all circuit branches by the controller and to verify the controller meets the manufacturer's specifications and code requirements.
2. Verify the proper operation of pump and controller running on/off sequence testing under normal and secondary power.
3. Conduct a flow test in accordance with the pump manufacturer's recommendations to verify that the pump meets characteristic curve and the proper system operational demand. Record flows and pressures.
4. Verify the operation fire pump on back-up power (if applicable).
5. Verify the pressure maintenance pump operates properly upon pressure drop. Record starting pressure reading.
6. Verify the automatic fire pump(s) operate properly upon water flow and/or pressure drop. Record starting pressure, if applicable.
7. Verify the manual fire pump(s) operate properly.
8. Verify the back-up pump operates as designed if lead pump fails (if applicable).
9. Verify the operation of control timers.
10. Verify the operation of controller transfer switch.
11. Verify the operation of all visual and audible indicators.
12. Verify that a maintenance log is kept indicating testing and service. The log shall be available for Fire Department inspection.
13. Verify plans are available on site (for Ccertificate of Oeccupancy and construction inspections).

D. For Diesel Driven Fire Pumps (In addition to 1-13).

1. Verify that adequate engine cooling is provided. If a radiator is used, verify that sufficient airflow is provided. If a heat exchanger is used, verify that a reliable and adequate water flow is provided to the shell side. For either case, verify a proper engine coolant to the required level is present in the tube side.
2. If the heat exchanger is not cooled by water from the pump discharge, verify the presence and proper operation of the discharge relief valve. A relief valve may or may not be present if pump discharge is used for engine cooling.
3. Verify the type and setting of the engine overspeed device and test the trip and alarm functions in accordance with manufacturer's recommendations (i.e., electrically, mechanically or both).

   NOTE: A manufacturer's representative may need to be present for testing engine overspeed devices.
4. Verify that the engine operates within the manufacturer's guidelines for speed (rpm), water temperature and oil pressure.
5. Verify the proper operation of engine trips and/or alarms (as appropriate) for oil pressure and water temperature in all engine controller modes (i.e., “Test," “Automatic," and “Manual”).
6. Verify the operability of each starting mechanism i.e., each electrical starting circuit, air starting motor(s)] in all applicable controller modes.

E. Standpipes

Standpipe systems shall be tested and certified annually and every five (5) years as described below. All certifications shall be conducted by a licensed automatic sprinkler company. The following system components and operations shall be tested as outlined:

1. Class 1 Standpipes.
   a. Verify fire department connection clappers move freely.

b. Verify fire department connection inlets move freely.

c. Verify fire department connection inlets have proper thread.

d. Verify fire department connection inlets are provided with caps/plugs.

e. Verify fire department connection is accessible and free of debris.

f. Verify the outlet hose valves are the proper size and thread.

g. Verify the hose and nozzles are in good condition including couplings, if provided.

h. Verify the proper supervision is provided for isolation and riser valves.

i. Verify the proper signage is provided for valves and equipment.

j. Verify the proper operation of all special equipment (i.e., freeze protection, pressure reducing valves, etc.).

k. Verify the piping and equipment is free of corrosive and mechanical damage.

l. Verify the overall system is complete and fully operational.

m. Verify approved plans are available on site (for Ccertificate of Occupancy).

n. Verify instrumentation of system provided in accordance with approved plans (for Certificate of Occupancy).

o. Hydrostatically test new or modified systems and/or if inspection indicates a need for such testing.

2. The following items need only be completed every five (5) years and at the time of Ccertificate of Occupancy for a Class 1 standpipe system:

a. For dry standpipes, hydrostatic test completed, 200 psig at the topmost portion of the system for two (2) hours.

b. Water flow function test at system's designed flow and pressure.

c. Verify proper settings or all PRV's under static and flow conditions.

3. Class 2 Standpipes.

a. Verify the fire department connection is operational, if provided.

b. Verify the outlet hose valves are the proper size and thread.

c. Verify the hose is in good condition including couplings.

d. Verify the means of hose storage is in good condition and operational.

e. Verify the hose nozzle is in good condition and operational.

f. Verify the proper supervision is provided for isolation and riser valves.

g. Verify the proper signage is provided for valves and equipment.

h. Verify the piping and equipment is free of corrosive and mechanical damage.

i. Verify the overall system is complete and fully operational.

j. Hydrostatically test new, or modified systems and/or if inspection indicates a need for such testing.

4. The following items need only be completed every five (5) years for a Class 2 standpipe system:

a. Water flow function test at system's designed flow and pressure.

5. Class 3 Standpipes. Class 3 standpipe systems shall be inspected utilizing the guidelines for Class 1 and Class 2 standpipe systems.

F. Automatic Sprinkler Systems

Automatic sprinkler systems shall be tested and certified annually. All certifications shall be conducted by a state licensed automatic sprinkler company. The following system components and operations shall be tested as outlined:

1. General Sprinkler Procedures.

a. Verify the fire department connection clappers move freely.

b. Verify the fire department connection inlets move freely.

c. Verify the fire department connection inlets have proper thread.

d. Verify the fire department connection inlets are provided with caps/plugs.

e. Verify the fire department connection is accessible and free of debris.

f. Verify the protected area containing wet pipe is properly protected against freezing.

g. Verify the local alarm devices are operational.

h. Verify remote alarm service is operational where required.

i. Verify adequacy of water supply (main drain test).

j. Verify all sprinkler heads are less than 50 years old.

k. Verify all specialized equipment (i.e., freeze protection, etc.) operates properly.

l. Verify all interconnected equipment for proper operation.

m. Verify proper operation and zoning of all flow switches.

n. Verify sprinkler spray pattern is unobstructed.

o. Verify sprinklers are free of dust, paint, residual build up and debris.

p. Verify spare sprinkler heads and wrench are provided.

q. Verify proper signage is provided for valves and equipment.

r. Verify piping and equipment is free of corrosive and mechanical damage.

s. Verify overall system is complete and fully operational.

t. Flushing will be conducted prior to the hydrostatic test prior to the Certificate of Occupancy.

u. Hydrostatic tests will be conducted upon initial installation (prior to obstructing view of piping).

2. The following tests for dry pipe sprinkler systems shall be conducted in addition to the tests specified in General Sprinkler Procedure above.

a. Verify the dry valve operates properly including quick opening devices (full flow trip test every 3 years).

b. Verify the dry valve priming water level is adequate.

c. Verify the air pressure is adequate.

d. Verify the proper operation of all compressors and timing of pumping system back in service.

e. Verify the ai› maintenance system operates properly.

3. In addition to the tests specified above, for all sprinkler systems the following shall be conducted on all preaction/deluge sprinkler systems:

a. Verify the detection system is operational.

b. Verify the supervisory air pressure, if provided, is adequate.

c. Verify the activation valve operates properly.

d. Verify the automatic trip test function properly (total system function/no flow).

G. Stairwell/Vestibule Pressurization

Stairwell/Vestibule pressurization systems shall be tested and certified annually. All certifications shall be conducted by a licensed contractor that is listed with the Austin Fire ~~Department, Fire~~ Marshal's Office as a Special Inspector. The following system components and operations shall be tested as outlined:

1. Verify the system operates automatically upon activation of the fire alarm system.

2. Verify the system operates on emergency power.

3. Verify and record the stairwell pressure differential readings across doors on top floor and ground floor, and every five (5) floors in between.

4. Verify that stairwell door opening forces do note exceed 30 pounds with the stairwell pressurized and no stairwell doors open.
5. Verify and record the vestibule pressure differential readings.
6. Verify correct system operation using the firefighter's smoke control panel.
7. Submit a copy of the annual certification test report to the Austin Fire ~~Department, Fire~~ Marshal's Office.

H. Emergency Generator

Emergency generator system shall be function tested quarterly, and tested and certified annually. All certifications shall be conducted by a licensed master electrician or an authorized generator company service representative. Quarterly function testing for high-rise buildings may be performed by the building engineering staff. The following system components and operations shall be tested as outlined:

1. Verify the generator starts upon power failure.
2. Test the generator under available building loads and confirm no additional loads are placed on generator without prior approval. Load banks shall be added as necessary to test at a minimum of 30% of rating (preferably 50%), or as required/recommended by manufacturer. The generator system shall be exercised for a minimum of 2 hours for acceptance and annual tests.
3. Verify all required systems are powered by the generator system.
4. Verify and record volts - amps - Hertz (under load and no load). Record the hour meter reading at the start and end of the test.
5. Verify the fuel supply is adequate for 2 hours at required building load.
6. Verify the transfer switches operate correctly.
7. Verify that the generator will shut off when normal power is restored.
8. Verify the remote status and control panel functions properly.
9. Verify the record of routine maintenance is being kept, indicating tests and service. The record shall be available for Fire Department inspection.
10. Verify the operation of the generator set with manual start.
11. Verify the approved plans are available on site (for C~~c~~ertificate of O~~c~~cupancy and construction inspections).
12. Verify installation of systems proceeded in accordance with approved plans (for C~~c~~ertificate of O~~c~~cupancy).

I. Elevators

Elevators shall be functionally tested quarterly, and tested and certified annually. All certifications shall be conducted by an elevator company service representative approved by the Building Official. Quarterly functional tests for high-rise buildings may be performed by the building engineering staff. The following system components and operations shall be tested as outlined:

1. Verify that the fire fighter's control switch inside each elevator car operates in the fire mode and that the elevators operate properly under normal power and emergency power, if applicable.
2. Verify all elevators return to the appropriate floor in fire mode under normal power.
3. Verify all elevators return to the appropriate floor in fire mode under emergency power, if applicable.
4. Verify the floor controls are inoperative in fire mode.
5. Verify that elevator doors open and close manually with key operation.
6. Verify the proper operation of main lobby call-down switch.
7. Verify the proper operation of remote control/status panel, if applicable.
8. Verify the operation of elevator phone or communication equipment.

9. Verify the proper signals are transmitted
10. Verify the proper operation and location of elevator smoke detectors.
11. Verify the proper operation of emergency stop.
12. Verify the proper operation of emergency alarm.

J. Smoke Management Equipment

Smoke management equipment shall be tested and certified annually. Testing of openable/removable windows may be conducted by knowledgeable building engineering staff ~~with~~. Testing of mechanical smoke management equipment shall be conducted by a licensed contractor that is listed as a Special Inspector with the Austin Fire Department, Fire Marshal's Office. The following equipment components and operations shall be tested as outlined:

1. Openable (Removable) or Tempered Glass Windows.
   a. Verify that the equipment needed for opening removable/ openable windows is readily available and operational.
   b. Verify that tempered windows are marked with a “T” decal located in the lower right or left hand corner.
   c. Verify that tempered and removable/openable windows are accessible and not blocked with walls, partitions, cabinets, etc.
2. Mechanical Smoke Management Equipment.
   a. Verify that smoke management fans, and all associated hardware operate correctly on primary and emergency power when activated by the zoned fire alarm system or zoned sprinkler system.
   b. Verify that the firefighter's smoke control panel operates correctly on emergency and primary power.
   c. For high-rise buildings provided with smoke exhaust, verify and record the number of air changes per hour provided on the fire floor(s).
   d. For high-rise buildings provided with floor pressurization, verify and record the pressure differential provided relative to the fire floor.
   e. Submit a copy of the annual certification test report to the Austin Fire Department, Fire Marshal's Office.

K. Sequence Tests

The following instructions pertain to performing a sequence test of fire protection and life safety equipment. Sequence tests shall be conducted annually by representatives of the building management/ engineering staff, ~~the~~ Austin Fire ~~Department~~, and such qualified personnel as needed. The Fire Department may decline to observe the test and instead accept documentation of the test provided by qualified personnel.

1. Determine what equipment in the building will be affected in this test.
2. Determine how many people or companies are needed to participate in the test. The building owner should develop a testing plan prior to the test.
3 Arrange a time to test and call all parties concerned (including the Austin Fire Department).
4. On the day of the test, position people at all test locations.
5. Test on normal power.
   a. Activate the fire alarm system from a randomly selected alarm device.
   b. Verify that the alarm sounds on all designated floors.
   c. Verify that all elevators return to the lobby and remain with their doors open (unless an alternative is approved by the Fire Chief).
   d. Ensure that the fire dampers in the building operate (if applicable).
   e. Ensure that the building HVAC (air conditioning) shuts down (if applicable).
   f. Ensure that stair and elevator shafts pressurize (if applicable).

g. Ensure that the stairway doors unlock (but do not unlatch), including door to control center and entrance door(s) to the building.

h. Start fire pump (if applicable) automatically.

i. Verify smoke removal system functions.

j. Verify communication system functions.

6. Test on Emergency Power.

a. Shut off building power (main circuit breakers).

b. Ensure that the emergency generator operates (if applicable).

c. Verify fire alarm system continues to operate. “All call” full load test on voice alarm systems.

d. Verify designated elevators operate.

e. Verify the status of fire dampers (open or closed).

f. Verify that pressurization of shafts and HVAC shutdown is the same as test on normal power.

g. Verify that the stairway door locks operate.

h. Verify fire pump operation (if applicable).

i. Verify all auxiliary equipment operates.

j. Verify transfer switches work on generator.

k. Verify that the generator shuts down automatically after normal power is restored.

l. Verify emergency lighting operates (if applicable).

m. Verify other systems operate (smoke removal, etc.).

L. Foam Systems.

1. Foam systems shall be tested and certified annually and at five (5) years. All certifications shall be conducted by a fire protection systems company licensed by the State of Texas. The following equipment components and operations shall be tested as outlined:

a. Inspect all proportioning devices, their accessory equipment, foam chambers and foam makers to assure they are not blocked and are in operating condition.

b. Inspect all aboveground piping to determine that it is in sound condition and that proper drainage pitch is maintained.

c. Inspect all strainers to assure they are in sound condition and clear.

d. Test control valves for proper operation and position.

e. Inspect the foam concentrate and their tanks or storage containers for evidence of excessive sludge or deterioration.

f. Verify that the actuation system, if provided, is operational.

2. The following items need only be completed every five (5) years for a foam system:

a. Complete hydrostatic test.

b. Perform water and foam flow function test at system's designed flow.

c. Spot check the underground piping for deterioration.

d. Test for foam concentrate quality by approved laboratories.

M. Fire Escapes.

1. Fire escapes shall be functionally tested annually, and tested and certified every five (5) years. Fire escapes shall be accessible and structurally safe at all times. Owners of buildings containing fire escapes shall have load tests of fire escapes conducted at least once every five (5) years with a weight of not less than 100 pounds per square foot, the results of which shall be submitted in writing to the Fire Chief under the seal of a registered professional engineer. Annual functional testing may be performed by the building engineering staff

2. In lieu of such a test, the Fire Chief may accept documentation from a registered professional engineer that the fire escape is structurally safe and will support a live load of 100 pounds per square foot on all load-bearing surfaces

N. Halon/FM 200/Inergen/Carbon Dioxide Systems

Halon and carbon dioxide systems shall be tested and certified annually. Acceptance Testing shall be shall be performed in accordance applicable NFPA Standards. All certifications shall be conducted by a fire protection systems company licensed by the State of Texas. The following equipment components and operations shall be tested as outlined:

1. Verify the operation of fire alarm detection system including all detection devices and associated equipment.
2. Verify that the quantity of agent and pressure are adequate to protect the hazard as designed.
3. Verify that the weight and pressure of the container is recorded on a tag attached to the container.
4 Verify the nozzle caps are in place, if applicable.
5. Verify that the system is free of mechanical damage.
6. Perform discharge test on required systems at time of installation to assure proper function.

O. Rangehood Systems

Rangehood systems shall be tested and certified semi-annually. All certifications shall be conducted by a fire protection systems company licensed by the State of Texas. The following equipment components and operations shall be tested as outlined:

1. Verify that the agent quantity and pressure is adequate to protect the hazard.
2. Verify all lead and wire seals are intact on the manual activator.
3. Verify that the system is free of mechanical damage.
4. Verify that blow off caps are in place or self-closing caps function properly.
5. Verify the correct positioning of all nozzles.
6 Verify that the fusible links have been replaced annually.
7. Verify the proper cable nut travel tolerances.
8. Test the system operation at the terminal link to verify proper operation including an air discharge test for initial testing following installation, unless air tested by manual trip as described below (do not discharge test during periodic tests).
9. Test the system operation at the remote manual trip to verify proper operation including an air discharge test for initial testing following installation, unless air tested by link operation as described above (do not discharge test during periodic tests).
10. Test the system operation and proper operation of microswitch.
11. Verify that the system is visible and free from obstructions.
12. Verify the inspection and service tag is attached to the system cylinder and properly completed.
13. Verify the proper hand portable extinguishers are available and properly serviced.

P. Dry Chemical

Dry chemical systems shall be tested and certified semi-annually. All certifications shall be conducted by a fire protection systems company licensed by the State of Texas. The following equipment components and operations shall be tested as outlined:

1. Verify that the agent quantity and pressure is adequate to protect the hazard.
2. Verify all lead and wire seals are intact on the manual activator.

3. Verify that the system is free of mechanical damage.

4. Verify that the blow off caps are in place or self-closing caps function properly.

5. Verify the proper positioning of all nozzles.

6. Verify that the automatic actuator functions properly.

7. Test the system operation at the remote manual trip to verify proper operation (actuation function test/not discharge test).

8. Verify the shutdown of appropriate devices, if applicable.

9. Verify no significant debris has accumulated in the nozzles.

10. Verify that the discharge pattern is unobstructed.

11. Verify the inspection and service tag on system cylinder and properly filled out.

12. Verify that no coagulation or caking of dry chemical has taken place.

Q. Controlled Access/Egress Systems.

1. Verify the approved plans are available on site for construction inspections and C~~c~~ertificate of O~~o~~ccupancy.

2. Verify the installation proceeds as per approved plans.

3. Verify the normal operation of the system.

4. Verify the operation of the system under simulated fire conditions.

5. Verify the fail open operation of the system due to power loss.

6. Verify the appropriate interconnected equipment for proper operation.

7. For touch sensor bars, verify that the lock will release when touched by a hand wearing a firefighter's glove.

7.2.12 Wildland-Urban Interface (WUI) Code Inspection Criteria ~~for WUI Code Inspections - International Wildland-Urban-Interface Code Inspections~~

Wildland-Urban Interface Code (LDC 25-12, Article 8) reference Sections 109, 603
Fire Code (LDC 25-12, Article 7) reference Sections 109, 316

In addition to the required Fire Code inspection, when a review for a site or a structure located in the Wildland-Urban Interface (WUI) area is also required, all sites and buildings shall be inspected for compliance with the Wildland-Urban Interface Code (WUIC)~~WUI Code~~. This inspection will be required for both commercial and residential structures.

A. Site Plans: ~~A site shall be inspected for compliance with the WUI Code and the approved site plan. Some of the typical items to be inspected include defensible space, vegetation, access and water supply. In order for a site inspection to proceed, a copy of the red stamped approved site plan must be available on site for the inspector. Inspections will not occur if an approved copy of the site plan is not provided to the inspector on site.~~

1. Inspection of Non-Compliant Sites.

If an inspector identifies a site that fails to meet code requirements for infrastructure or safety, corrective actions shall be required to be completed to address the deficiencies before an inspection can be passed.

2. Ignition Source Control Guidelines.

Appendix A outlines requirements for controlling ignition sources when using equipment or devices that produce heat, sparks, or open flames. Such equipment shall be kept at least 30 feet away from non-fire resistive vegetation or combustible materials. At generators, spark arrestors compliant with United States Department of Agriculture (USDA) Forest Service Specification 5100-1 may be provided as an acceptable alternative to the required 30 foot noncombustible and

fire-resistant vegetation zone. Refer to the most current version of the USDA Spark Arrester Guide for more information.

3. Landscape Site Plan Compliance.

Where required, landscape site plans adhering to WUIC plant requirements will be reviewed by Austin Fire and inspected by Environmental Inspectors. Inspections will follow standard procedures based on the approved design plan.

B. Building Plans (Commercial and Residential): A site and structure(s) shall be inspected for compliance with the ~~WUI Code~~ Wildland Urban Interface Code (WUIC) and the approved building plans. Some typical items to be inspected include ignition resistant construction~~,~~ and ember protection for verification ~~and proximity to the WUI area~~.

1. On Site Verification.

a. All materials required to meet WUIC standards must be verifiable on-site. Materials that cannot be verified on-site with an acceptable form of verification will be considered non-compliant.

b. Acceptable forms of verification include labeling, packaging, product data, invoices, or other documentation available for the inspector to view.

c. Fire-Retardant-Treated Wood (FRTW) must display a manufacturer's label (see Figure 7.2.12.B-1) and must be used as specified.

d. Exterior materials must be rated and labeled specifically for exterior use, or verified by another acceptable form of verification.

e. For batch-rated materials, batch test results must be provided to the inspector.

| | |
|---|---|
| EXTERIOR<br>FR BRAND/LOGO<br><br>TREATING PLANT NAME<br>ANYWHERE, USA<br><br>TREATING STANDARD<br><br>DRYING METHOD<br><br>## KDAT ## | ◯<br>APPROVED AGENCY NAME & LOGO (E.G. UL)<br>CLASSIFIED TREATED LUMBER<br><br>PRODUCT SPECIES<br>SURFACE BURNING CHARACTERISTICS<br>FLAME SPREAD 25<br>SMOKE DEVELOPED #<br>30 MINUTE TEST<br><br>PROCESS STANDARD OR ESR REPORT<br><br>NO INCREASE IN THE LISTED<br>CLASSIFICATION WHEN SUBJECTED TO<br>STANDARD RAIN TEST (ASTM D2898) |

Figure 7.2.12.B-1
Example of the type of information on a FRTW stamp

2. HUD Modular Housing and TX IHB-Certified Buildings

HUD modular housing or commercial buildings certified under the Texas Industrialized Housing and Buildings (IHB) Program are subject to specific compliance criteria. Only site-built components of these structures are required to meet WUIC standards. Any WUIC compliance measures that would necessitate alterations requiring recertification of the structure will be waived. However, all other site construction must fully comply with WUIC requirements.

3. Two (2) Required WUIC Inspections

(WUIC inspections are divided into two site visits, Wildland-Urban Interface (WUI) Rough and WUI Final. In order for an inspection to proceed, a full-size copy (24"x36" minimum Commercial, 11"x17" minimum Residential) of the approved building plans must be on site for the inspector to review~~. Inspections will not occur if the approved building plans are not on site.~~ If the approved

building plans are not on site, the inspection will not be performed and will fail, requiring reinspection. Access must be easily achieved and plans readily available. The Point-of-Contact (POC) or POC representative should be available in person, by phone, or other means within a timely manner during the inspection to answer questions and verify materials used. If a property is occupied the POC must be on site. Ensuring that a POC is onsite is the best practice to ensure inspectors can verify information and complete the inspection to reduce the risk of failure.

4. WUI Rough Inspection

A WUI Rough inspection must be scheduled before the Building Framing inspection.

(A) WUI Rough Inspection Waivers

This inspection will be waived by the WUI Reviewer during the plan review process for certain project types unless determined that the inspection is still required or requested:

1) Interior remodels that do not affect the exterior of the building or ventilation openings.
2) Exterior appendages such as decks, patio covers, pergolas and more that are not associated with a new enclosed building.

(B) Requirements at Inspection

At the time of the WUI Rough inspection, the roof covering, eaves, soffits, and fascia should be fully installed. Where a material cannot be installed prior to WUI Rough inspection due to constructability concerns, the WUI inspector will work with the contractor on acceptable ways to demonstrate compliance, such as acceptance of photographic verification. Ventilation mesh must be visible for inspection, unless alternative visual verification is provided per below. Vent caps, covers, and hoods should either not be installed or must be easily removable if the mesh is not visible from below or inside the structure.

The ventilation mesh must be securely fastened outside of the roof decking or exterior wall sheathing and must completely cover the opening. Vents located in roof ridges, soffits, or similar areas must have a method to demonstrate that ember-protective mesh has been properly installed.

(C) Alternative Visual Verification of WUIC-Compliant Mesh

Evidence of WUIC-compliant mesh installations for mechanical vents are acceptable under the following conditions:

1) Availability at Inspection: Verification must be provided and available at the time of inspection. Requirements can be met with photographic and/or video evidence as determined by Austin Fire.
2) Proper Installation: Verification must clearly show that the mesh is correctly installed between the roof decking and roof covering.

3) Proof of Identification: Verification shall include sufficient proof-of-location information. This may include details such as date of installation, address, and vent number written on the decking next to the penetration or other method to identify the location. Alternatively, videos may show the exterior of the building with the address and continue to show each penetration. Identifying details must be visible in submitted media and during the physical inspection. Additional options may be made available by Austin Fire.

Figure 7.2.12.B-2

Example of the Photographic Verification of WUI-Compliant Mesh

(D) Roof inspections

The roof shall be fully installed at time of WUI Rough inspection without obstructing the ability of an inspector to see ventilation openings for their verification of ember-mesh protection where applicable penetrations exist. Where a roofing material cannot be installed prior to WUI Rough inspection due to constructability concerns, the WUI inspector will work with the contractor on acceptable ways to demonstrate compliance, such as acceptance of photographic verification.

5. WUI Final Inspection

The WUI Final Inspection shall be scheduled prior to Building Final. All construction must be complete. This includes roofing, eaves, fences, gates, gutters and downspouts, as well as detached structures, appendages, and outdoor fireplaces, fire pits, and cooking appliances. When an Ember Ignition Zone (EIZ) is in the scope of work, the area must be covered with intended material at time of WUI final inspection.

Inspectors will evaluate materials to ensure compliance with WUIC standards. Any materials that do not match the approved plan set and cannot be verified on-site will be considered non-compliant. See 7.2.12.D for options.

C. If required by the WUI Code or an approved vegetation management plan, an inspector will verify that defensible space is provided and is capable of being maintained.

D. Site conditions that are not shown on the approved plans may require modifications to the scope of work, as determined by the inspector, to ensure compliance with the intent of the WUIC. These modifications could include measures such as structure hardening, fence alterations, or other adjustments.

Materials specified in the approved plans will be verified on-site during inspection. Substitutions that align with the Austin Fire WUI approved materials list are acceptable unless specifically required by an Alternative Method of Compliance or Modification (AMOC). Any other changes to materials will require a formal plan revision before approval, unless WUI Plan Review staff confirm that the material has been approved, documented, and does not require a formal revision process.

~~For conditions that arise beginning on or after January 1, 2021, an inspector will verify that:~~

1. spark arrestors for chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid fuel or liquid fuel is used are in place and constructed of 12 USA standard gage wire (0.1046 inch) (2.66 mm) having openings not exceeding ½ inch (12.7 mm); and

2. firewood and combustible materials are not stored within ten (10) feet of a structure or in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs, and/or as required by the Fire Marshal.

Source: Rule No. R161-21.05, 3-22-2021.

7.3.0 INSPECTION RULES

A. Rules made by the City of Austin for the Fire Code and WUI Code will be contained within this section. The purpose of this section is to outline the rules issued by the City of Austin pertaining to specific codes, standards and amendments. Such rules are promulgated to administer and implement the Fire Code and WUI Code.

B. Rules reference appropriate International Code sections or other adopted standards. Rules are in the same order as the referenced sections. Source: Rule No. R161-21.05, 3-22-2021.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.6.34.2 PLACES OF ASSEMBLY-Temporary Change of Use to a Public Assembly
Applications shall be submitted for consideration of "Temporary Change of Use". Applications are available on-line (http://http://www.austintexas.gov/department/afd-permits) or by contacting the Emergency Prevention Division.
Managing the approved temporary occupant load is the responsibility of the individuals applying for the permit. The occupant load is the maximum number of people that will be allowed in the specified area of the occupancy. Separate occupant loads may be given for designated areas. Maximum loads will be identified on the permit. Multiple specified areas cannot be added together, as each area must not exceed its designated load. Failure to comply will result in the issuance of a citation and termination of the event.
In the event a citation is issued, no further permits will be granted for at least 60 days. Once eligible to apply for a permit, a crowd control plan must be submitted with the application. This plan must clarify control of entrance and egress measures while maintaining designated loads. Approval of this plan is required before issuance of permit.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 106.2
Inspections are required for all construction projects involving the installation or modification of fire protection systems, including but not limited to fire extinguishing systems, fire alarm systems, and smoke control systems, regardless of the number of sprinklers or devices involved.

CITY OF AUSTIN FIRE PROTECTION RULE
International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 110, 311.5, 311.6, 316.7, 316.7.1, 505.3, and 505.3.1

The AFD Safety Office in cooperation with the Emergency Prevention Division has developed a program to identify structures that present, or would present under fire conditions, inordinate or unexpected hazards to firefighters and make such structures known to AFD Operations personnel. By making firefighters aware of existing hazards, AFD, and the public, may be able to keep firefighters safer during emergency operations. Recognizing a building as a dangerous structure will alert Company Officers to reconsider standard fire ground procedures and take a second look to determine the safety of operating within the structure. When the owner or responsible agent cannot or will not mitigate the hazards, AFD, under 2012 IFC section 110.4 (Abatement), identify "Dangerous Structures" by posting the required address numbers at the entrances to the structure using distinctive white letters on red background. AFD will facilitate the posting of this address, at a nominal fee, to all buildings identified by the AFD Safety Office as dangerous structures.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 408.2.2

Safety announcements shall include explanations of fire protection systems, if any, in the occupancy, directions to all available exits, and meeting locations outside in case of evacuation. Safety announcements shall be made prior to live performances

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 105.4, 901.2, 901.6, 907.1.1, and 907.8.5

"As-built" drawings and/or approved plans for fire protection systems shall be maintained on premises.

CITY OF AUSTIN FIRE PROTECTION RULE
International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 901.5 and 909, and International Building Code (LDC Chapter 25-12, Article 1), Reference Section 909.18.

Prior to issuance of a building certificate of occupancy, all mechanical smoke management systems are required to be inspected and tested by a special inspector or special inspection agency as required by Section 909.3 of the Building Code (LDC Chapter 25-12, Article 1). A final report shall be submitted to the Austin Fire Department, Fire Marshal's Office for approval.

A copy of the Building Smoke Management Systems Special Inspections Guidelines is included in Section 3 of this manual.

Performance tests for occupancy inspections developed by the registered professional engineer of record and acceptable to the Fire Department shall be conducted on the smoke removal and control systems to demonstrate the adequacy of design in accordance with the Building Code and approved plans.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 901.5 and 903.5

Approval of sprinkler systems modifications will not require the Fire Department's witnessing a hydrostatic test if the modification required the relocation, addition, and/or deletion of less than 20 sprinklers, except as permitted by NFPA 13 and/or NFPA 25.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Sections 901.5 and 901.6

All fire protection and life safety systems shall be tested and certified before a certificate of occupancy approval is granted by the Fire Department and thereafter by qualified personnel in accordance with applicable national standards, including but not limited to NFPA 25 and NFPA 72. Tests shall be conducted in accordance with appropriate rules cor\tained in Section 3 (Inspection Process) of this manual.
All annual and five (5) year test results shall be recorded on standard forms contained in Appendix B of this Fire Protection Criteria Manual.

Copies shall be maintained on premises and made available for Fire Department inspection. When requested, the owner shall provide the Austin Fire Department with copies of the inspection forms.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 901.7
Fire protection systems shall be maintained according to original installation standards. Every impairment of a fire protection system is of concern to the Austin Fire Department. To ensure compliance with the requirements of Section 901.7 and to ensure that progress toward system restoration can be monitored, please take the following steps when notifying our office of a system impairment:

1. e-mail all System Impairments to FirePrevention@austintexas.gov

2. Include the following information on the notice

- Your company name or logo, address, email address and phone number(s)
- Date of the inspection
- Name, address, phone number(s) of occupancy inspected and a contact name for the person on site (manager, owner, etc.)

- System type(s) that are impaired and a short description of the impairment(s) as well as tag status. Please do not send an entire inspection report as they are generally too long.

- The name of the technician that performed the inspection.

3. Notify AFD Prevention when a system is returned to service. Fire Code section 901.7.6 requires notification of our office when you repair a fire protection system to a state that all impairments no longer exist, even if your company was not responsible for issuing the original impairment notice.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 3310.1
Access roadways provided for service to buildings shall be completed to within required distances prior to any construction involving combustible wood framing, formwork or shoring timbers, provided however, that formwork for single story structures may proceed concurrent to road construction.

CITY OF AUSTIN FIRE PROTECTION RULE

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 3310.1
Combustible building materials stored on a building site where construction has commenced shall be afforded the same roadway access and other fire protection measures as required for buildings under construction.

CITY OF AUSTIN FIRE PROTECTION RULE INS1

International Fire Code (LDC Chapter 25-12, Article 7), Reference Section 110 115.1, 311.5, 311.6 311.5.1, 316.7, 316.7.1 505.3, and 505.3.1

The AFD Austin Fire Safety Office in cooperation with the Emergency Prevention Division has developed a program to identify structures that present, or would present under fire conditions, inordinate or unexpected hazards to firefighters and make such structures known to AFD Austin Fire Operations personnel. By making firefighters aware of existing hazards, AFD Austin Fire, and the public, may be able to keep firefighters safer during emergency operations. Recognizing a building as a dangerous structure will alert Company Officers to reconsider standard fire ground procedures and take a second look to determine the safety of operating within the structure. When the owner or responsible agent cannot or will not mitigate the hazards, AFD, under 2012 IFC section 110.4 (Abatement) 115.6 (Restoration and abatement), identify “Dangerous Structures” by posting the required address numbers at the entrances to the structure using distinctive white letters on red background. AFD Austin Fire will facilitate the posting of this address, at a nominal fee, to all buildings identified by the AFD Austin Fire Safety Office as dangerous structures.

APPENDIX

~~APPENDIX A: FIRE PROTECTION RULES REQUEST~~
APPENDIX B: INSPECTION FORMS
APPENDIX C: HAZARDOUS MATERIALS STORAGE PERMIT APPLICATION
APPENDIX D: FIRE-FLOW REQUIREMENTS FOR BUILDINGS
~~APPENDIX E: FIRE PROTECTION PLANS SUBMITTAL REQUIREMENTS~~
APPENDIX E~~F~~: FIRE CODE AMENDMENTS
APPENDIX F~~G~~: FIGURES AND DIAGRAMS