Thank You For The Invitation

- Clarify roles and responsibilities.
- Better understand the fire lane rules.
- Introduce new staff.
- Dialogue and discussion.

Fire Prevention Service Philosophy

Serve the community as problem solvers.

Solution based code consultants.

Educate first . . . And regulate when necessary.

When Is the MFD Perceived As The Problem

- Designer and owner married to the design before code analysis
- IFC ignored
- Consult or submit too late into the design/approval/construction schedule
- The wrong questions are asked.
- The picture is fuzzy.

Fire Apparatus Access Requirements

- MGO 34, IFC Chapter 5 and Appendix D105 contain the fire lane requirements
- MFD Fire Access Equivalency Guide
- New Fire Access & Hydrant Worksheet


7
ENGINE
7

Fire Department Review/Approval Process

- Design consultations, questions and pre-submittal reviews should be addressed to Bill Sullivan
- Site plan approvals will bear the signature of Scott Strassburg

Design Choices Determine Applicable Code Requirements

- The designer and/or owner chooses the height of the building, the side of fire access, fire lane location and whether the fire lane will be the street or on-site.
- Owner is responsible for compliance with the applicable codes.

Design Community Perceptions

…Fire Department “wants”…

…Fire Department “needs”…

… Fire Department is “ making us”….

And Reality is . . .

The fire code is applied to the design options selected by the owner/designer.

Top 4 Reasons for Fire Department Rejection of Plans

- Applicant is committed to a design which does not comply with the code minimums.
- Applicant does not acknowledge the Fire Department review comments to the Plan Commission.
- Applicant does not ask for clarification.
- Applicant is not familiar with the Code.
- City agencies receive conflicting information.

International Fire Code – Chapter 5 and Appendix D105

- Adopted by MGO 34 – Fire prevention Code
- Prescribes the minimum requirements for fire apparatus access to public buildings and places of employment.

International Fire Code (IFC)

- The IFC supports, compliments and is part of the State Building Code.
- The IFC is not more or less restrictive.
- The IFC also regulates the use, operations and maintenance of buildings and processes.

Madison General Ordinances (MGO) Chapter 34 – Fire Prevention Code

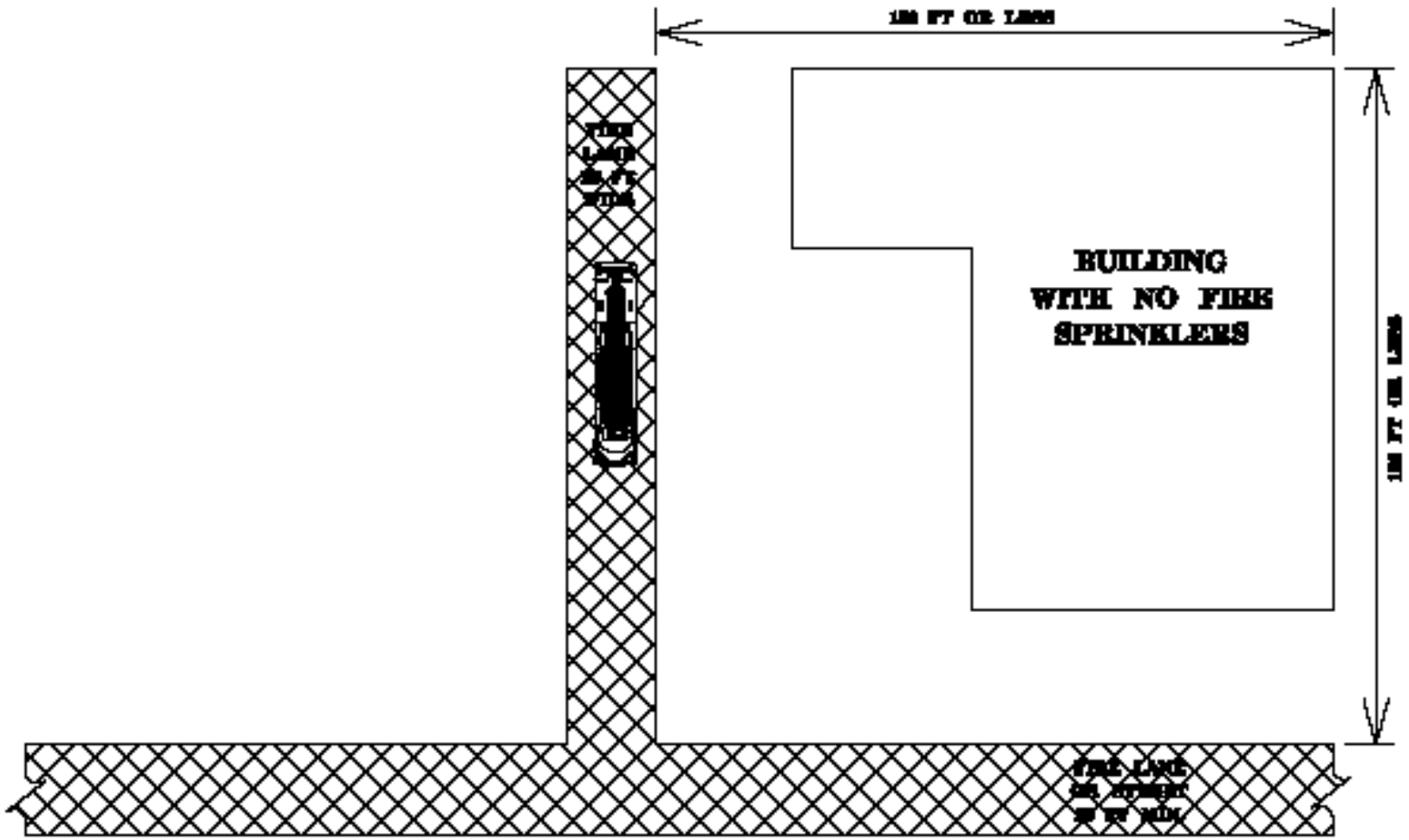
- MGO 34 adopts the IFC and State Building Code as the base documents for local enforcement.
- Specifies asphalt or concrete for fire apparatus access roads.
- Sets the maximum grade for fire apparatus access at 8%.
- Reviewed by the Building and Fire Code Review, Licensing and Appeals Board and approved by the Council.

General Requirements

Unobstructed fire lanes that are accessible **from** a public road shall be provided for every facility, building or portion of a building in accordance with this code.

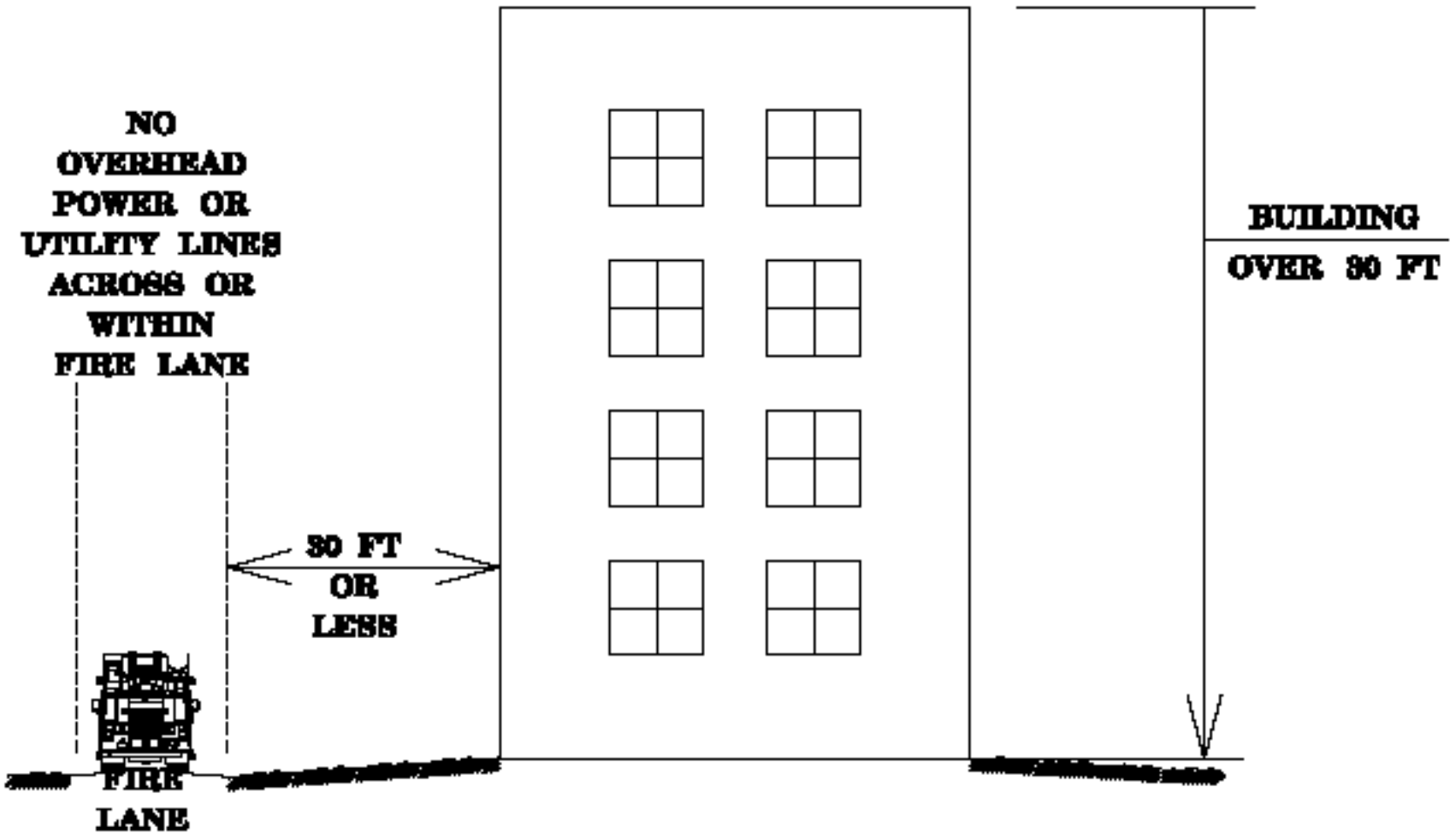
Buildings and Facilities

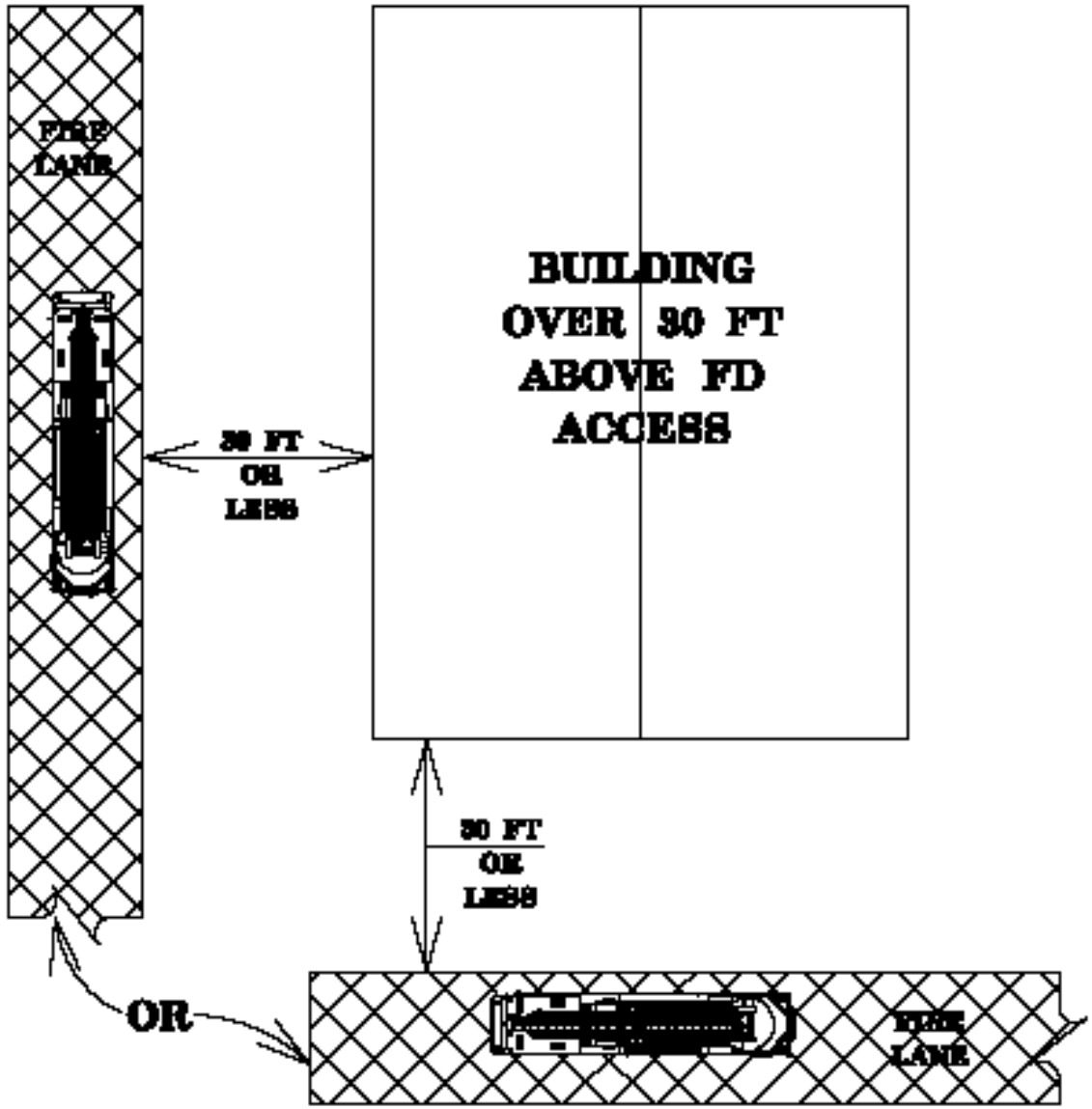
A fire lane shall extend to within 150 feet of all portions of the building or facility or any portion of the exterior wall of the first story as measured by an approved route around the exterior of the building or facility.


BUILDING
WITH NO FIRE
SPRINKLERS

Aerial Fire Apparatus Access

Where any part of the building or facility is more than 30 feet above the lowest level of fire apparatus access, the fire lane shall also be parallel to one entire side of the building or facility with the near edge of the fire lane within 30 feet of the building or facility on that parallel side. Overhead power or utility lines may not be located across or within a fire lane for aerial fire apparatus.

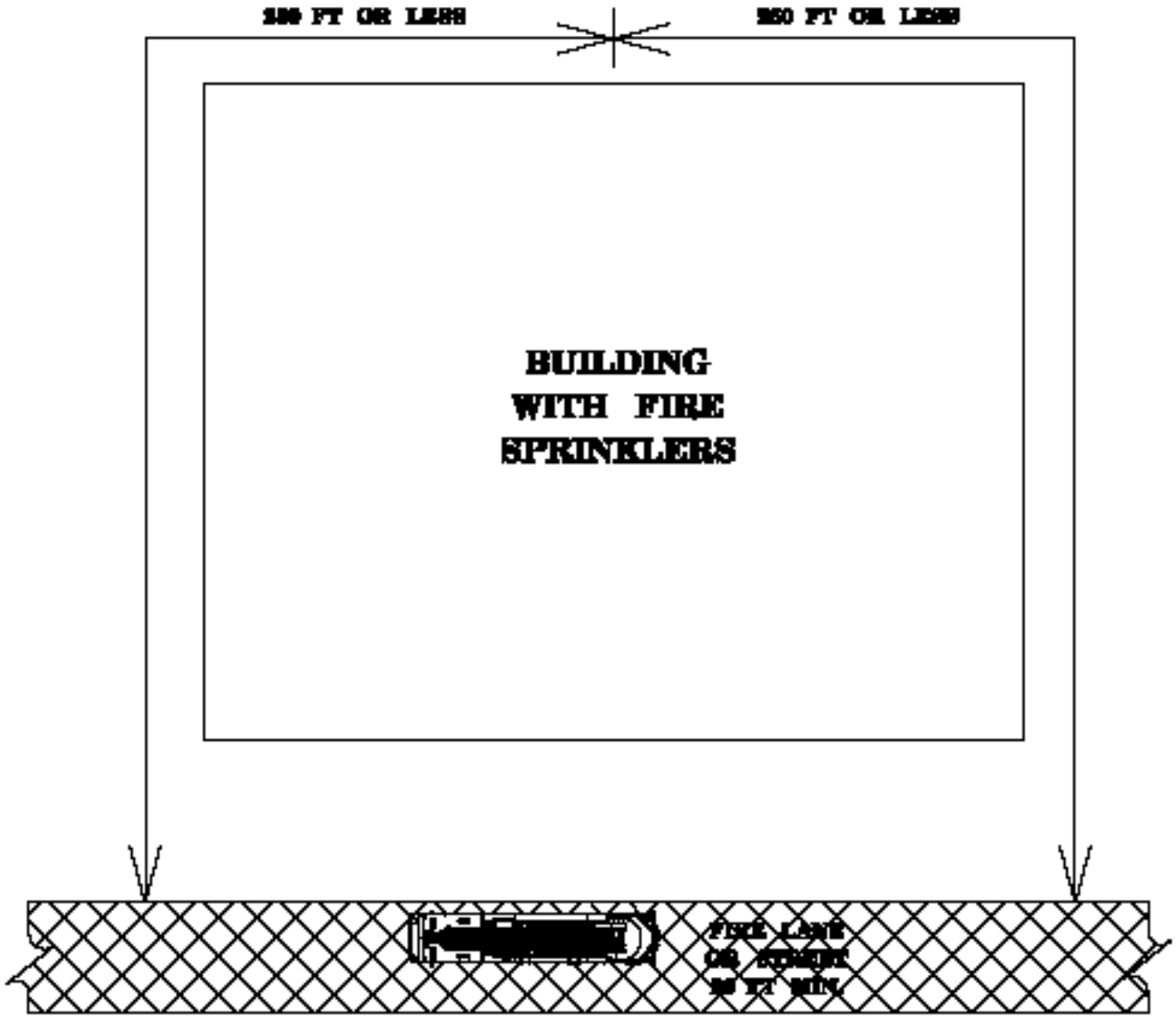

NO
OVERHEAD
POWER OR
UTILITY LINES
ACROSS OR
WITHIN
FIRE LANE
30 FT
OR
LESS
FIRE
LANE
BUILDING
OVER 30 FT


FIRE LANE
BUILDING OVER 30 FT ABOVE FD ACCESS
30 FT OR LESS
30 FT OR LESS
OR
FIRE LANE

Exceptions

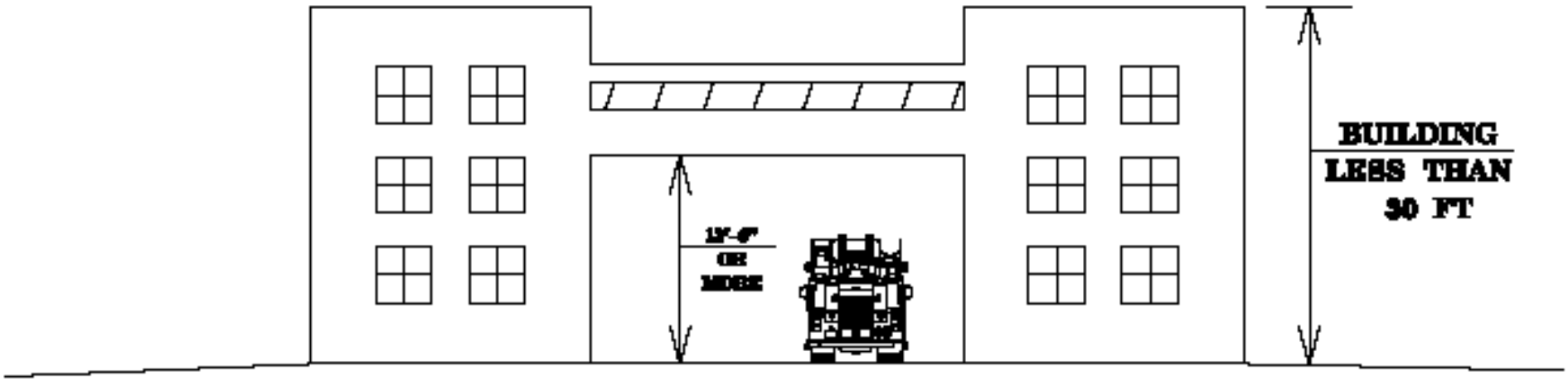
The fire code official may increase the dimension of 150 feet where any one of the following conditions are met:

1. The building is equipped with a complete automatic fire sprinkler system.
2. A code-complying fire lane cannot be provided due to location on property, topography, grades, waterways or other similar conditions, and an approved alternative means of fire protection is provided.


300 FT OR LESS
300 FT OR LESS
BUILDING
WITH FIRE
SPRINKLERS
FIRE LANE
OR STREET
30 FT MIN

Clearances

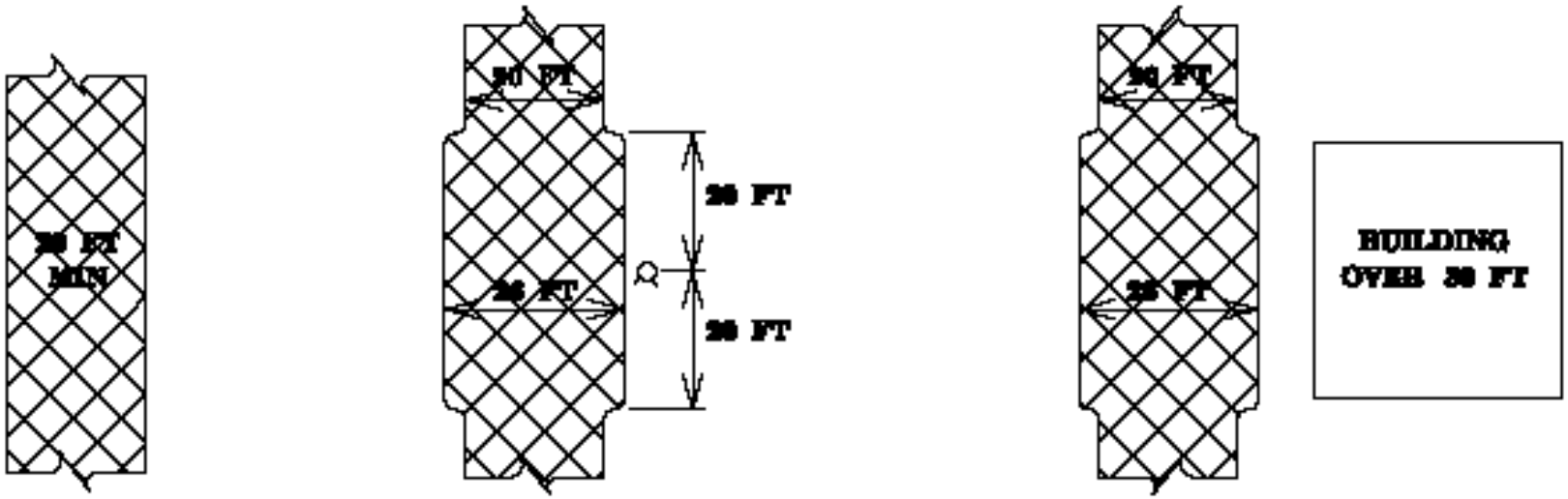
A fire lane shall have a minimum unobstructed vertical clearance of 13.5 feet.


BUILDING
LESS THAN
30 FT

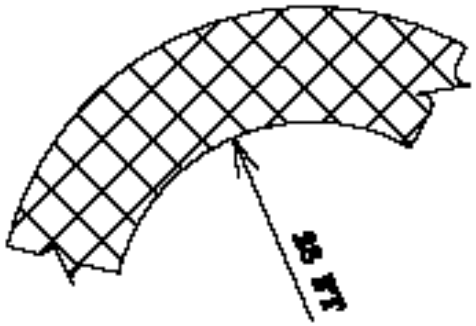
Width Requirements

Except as noted in pars. (d) and (e), a fire lane shall have a minimum unobstructed width of 20 feet.

FIRE LANE WIDTHS



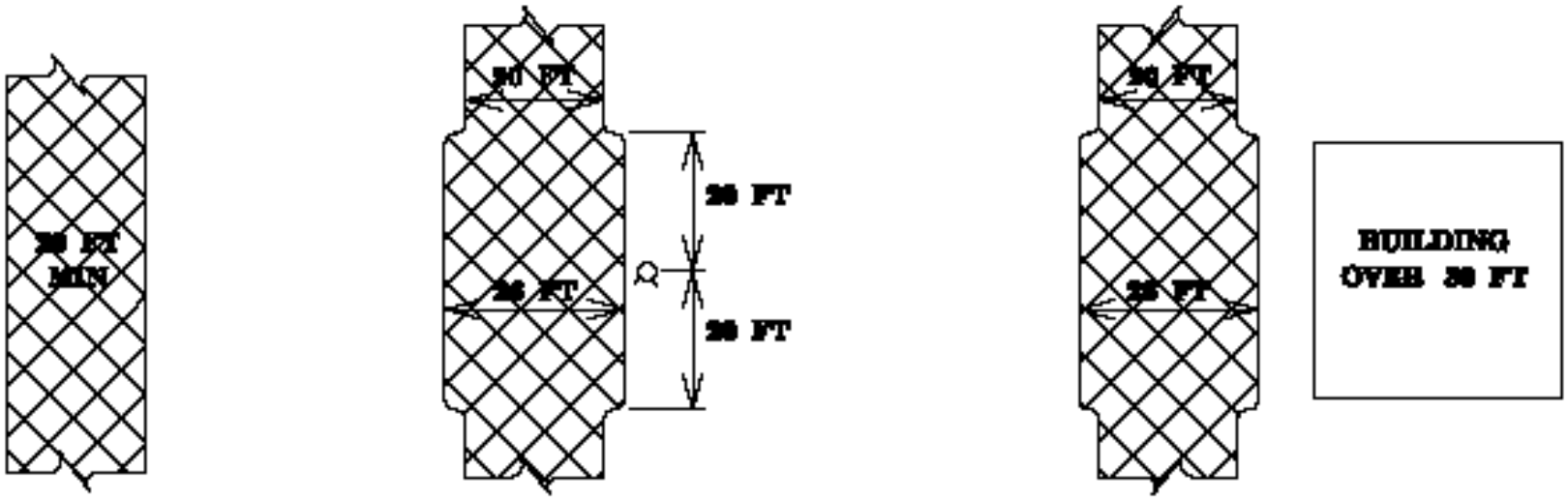
TURNING RADIUS



Width At Fire Hydrants

Where a fire hydrant is provided to supply fire apparatus on the fire lane, the minimum unobstructed width shall be 26 feet for a minimum distance of 20 feet on each side of the fire hydrant.

FIRE LANE WIDTHS



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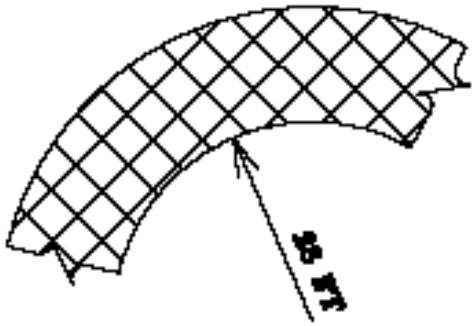
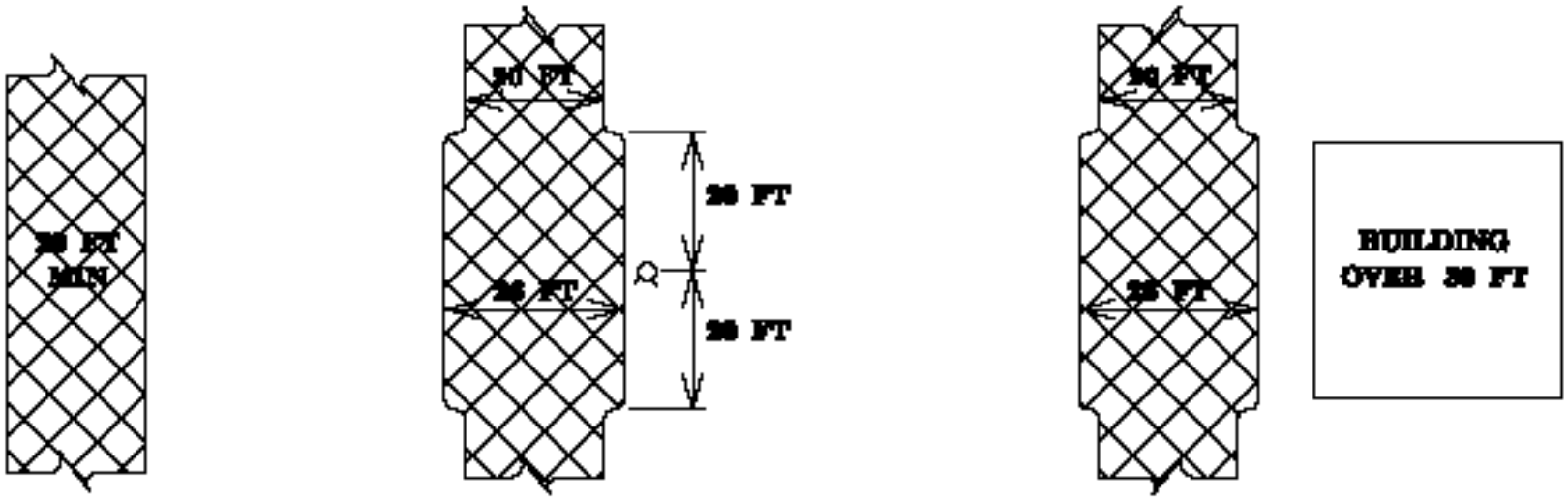


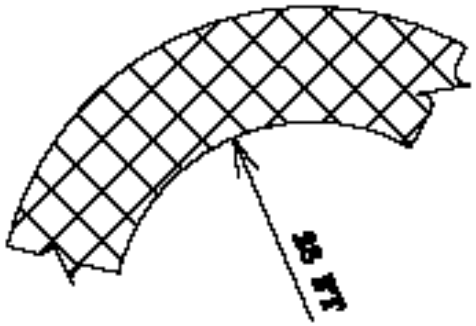
Width For Aerial Fire Apparatus

Where any part of the building or facility is more than 30 feet above the lowest level of fire apparatus access, the minimum unobstructed width of the fire lane parallel to one side of the building or facility as required under sub. (2)(a)2., shall be 26 feet.(This is the aerial apparatus access for the building.)

FIRE LANE WIDTHS



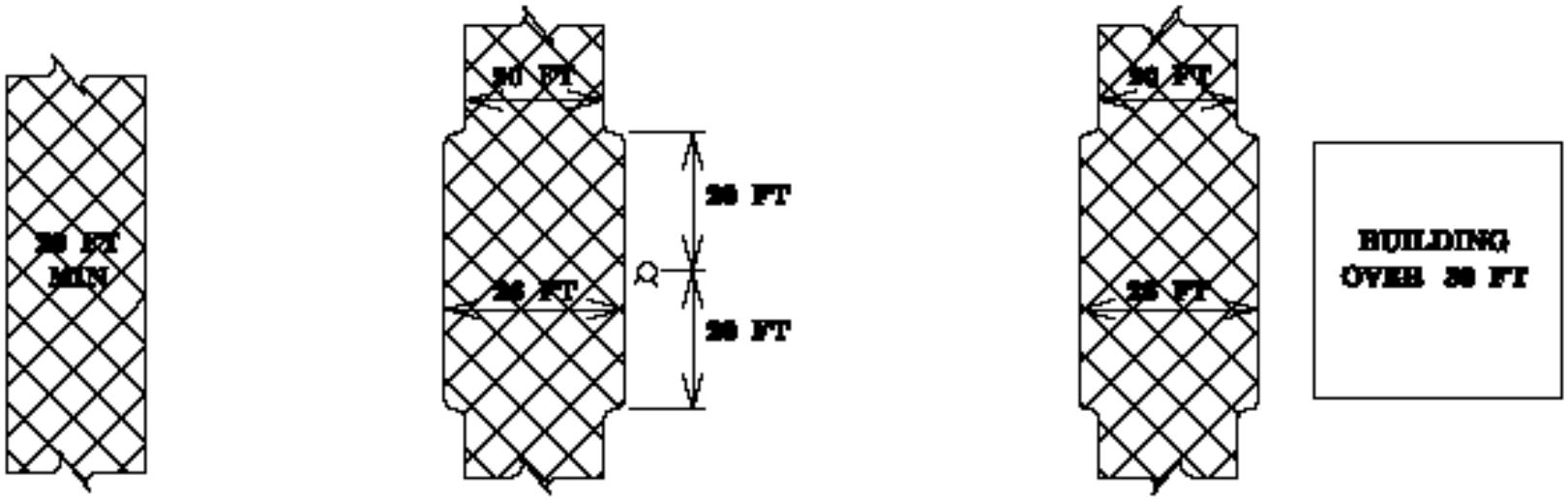
TURNING RADIUS



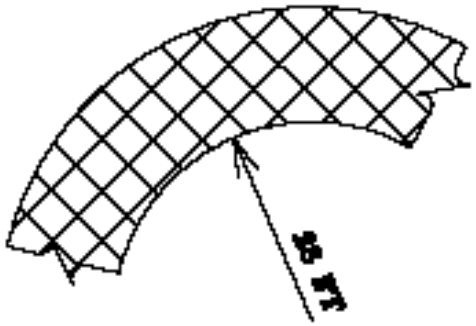
Turning Radius

The inside turning radius of a fire lane shall be 28 feet or as determined by the fire code official.

FIRE LANE WIDTHS



TURNING RADIUS

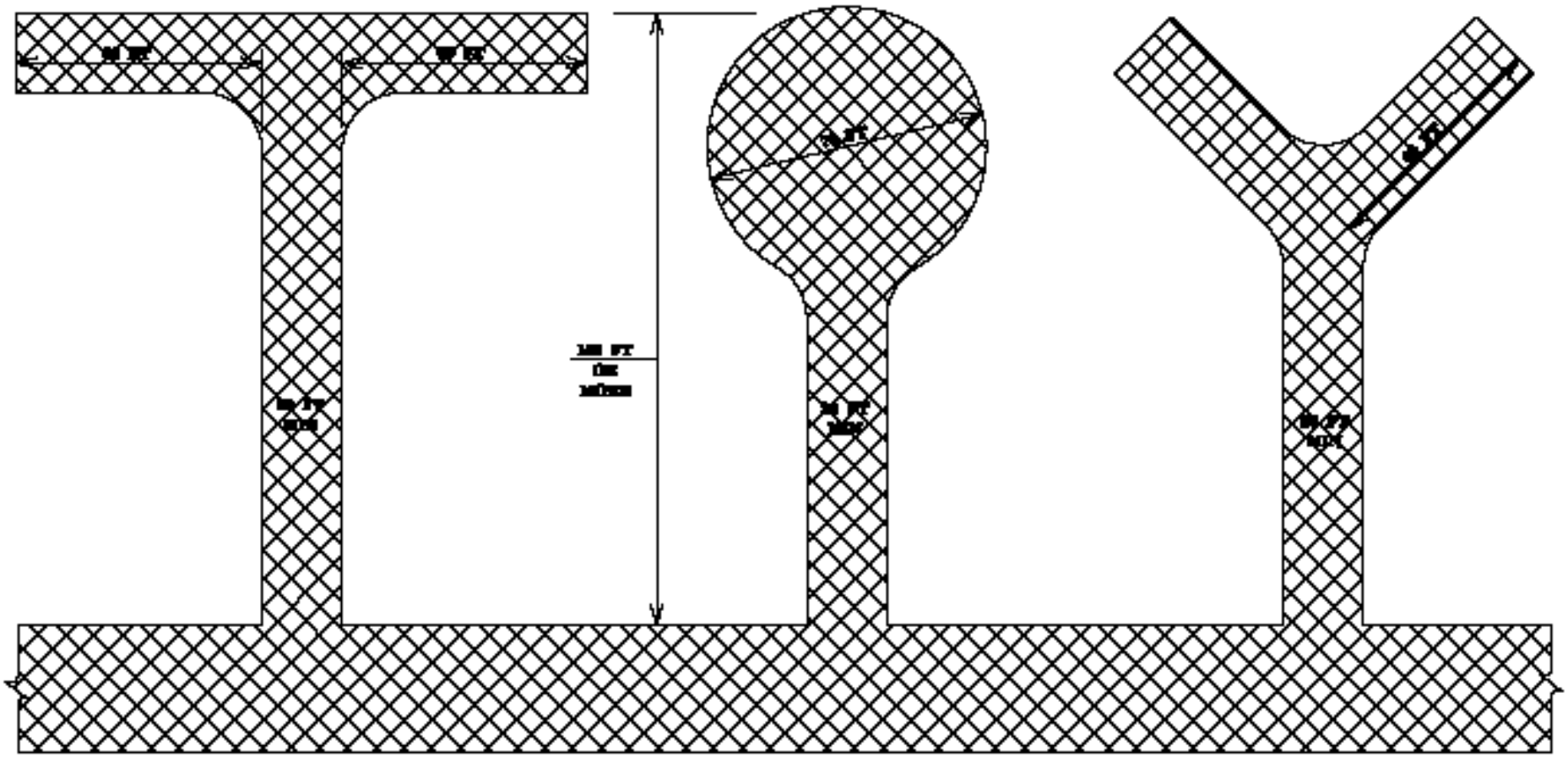


Dead Ends

A dead-end fire lane that is longer than 150 feet shall terminate in a turnaround area which consists of one of the following:

- A cul-de-sac with a minimum diameter of 70 feet.
- A 45º wye with a minimum length of 60 feet per side.
- A 90º tee with a minimum length of 60 feet per side.

CUL DU SAC MINIMUMS

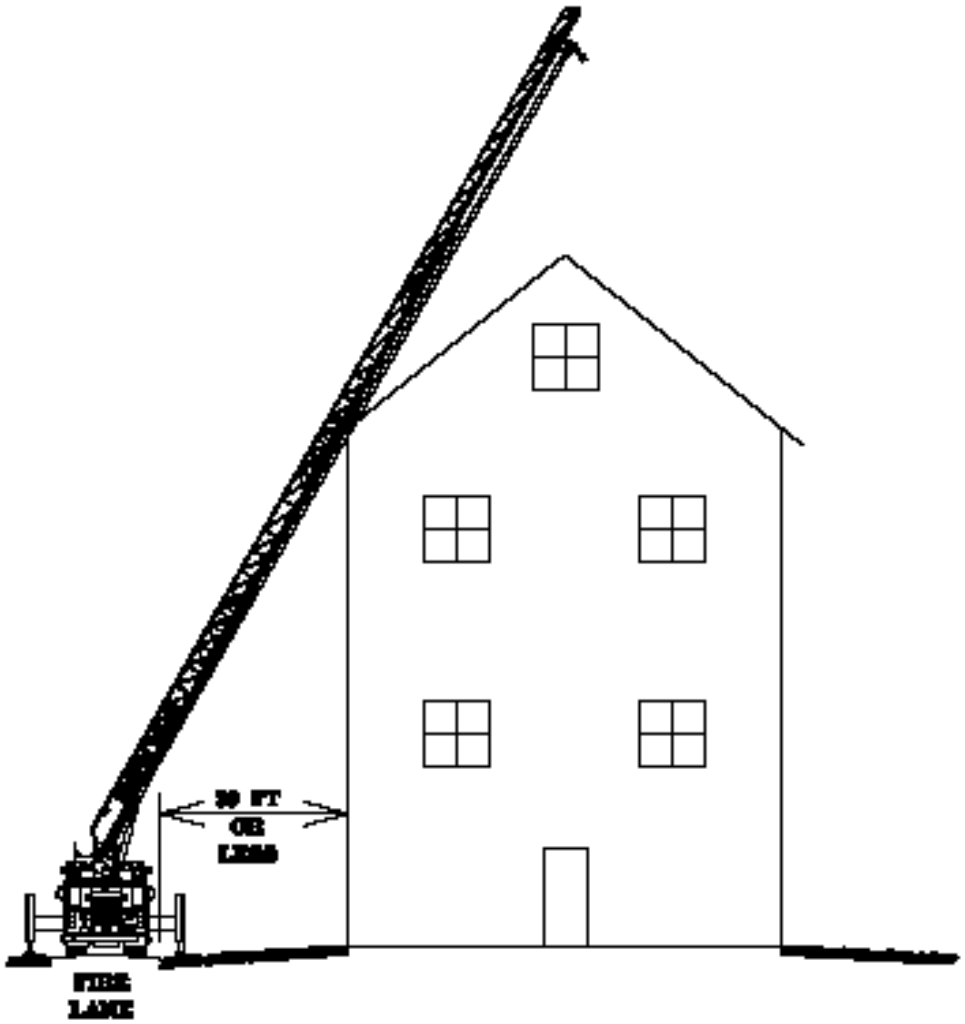


Equivalency Guide

The design professional and property owner **may** suggest other alternative design schemes for providing equivalent protection. This document serves only as a guide and does not commit the MFD to any alternative designs. The MFD may suggest or require other safety improvements in addition to the items included in this guide.

Aerial Access Equivalency

Where a building is over 30-ft in height aerial apparatus access is required; you may consider a performance based design concept that demonstrates equivalency with site plans showing alternate fire lane locations and section view details showing the ladder truck reaching the building from different locations.



EQUIVALENCY

Approval of Equivalent Designs

- Informal process (letter from owner)
- Formal process (Petition For Variance)

Fire Access Worksheet

A completed worksheet is required for all site plan reviews. The worksheet assists the applicant in applying the code to the project.

Required Set-backs and Fire Access

- When the distance between the street drive lane and the face of the building exceeds 30 feet and the building height exceeds 30 feet, on-site fire lanes are required.
- On street parking increases the distance between the street (fire lane) and the building.

Street Trees

- A continuous tree canopy between the building and the aerial fire apparatus access is an obstruction.
- The department applies the 20/20 guide to street trees


MADISON LADDER
L
1
LADDER
NO
PARKING
BETWEEN
SIGNS

Thank You For Your Time

- Bill Sullivan, 261-9658
- Scott Strassburg, 261-9843
- Ed Ruckriegel, 266-4457