

# LAYOUT: AMBULANCE BAY, PART I

UNDERSTANDING SPRINKLER LAYOUT SERIES BY MEYERFIRE UNIVERSITY | JANUARY 2023

## SUMMARY

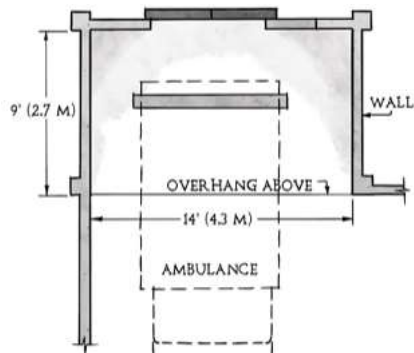
This is Part I of a multi-part example of a sprinkler layout, specifically for a sprinkler layout on an Ambulance Bay. This situation includes:

- An occupiable floor level above a space that partially-overhangs an Ambulance parking spot.
- The overhang has a concrete bottom, is smooth and level, and covers a space that is bound on three sides by brick walls.
- This space is used for patient transfer from an ambulance into the Emergency suite of the hospital. Both the 2018 IBC and 2012 NFPA 101 apply.

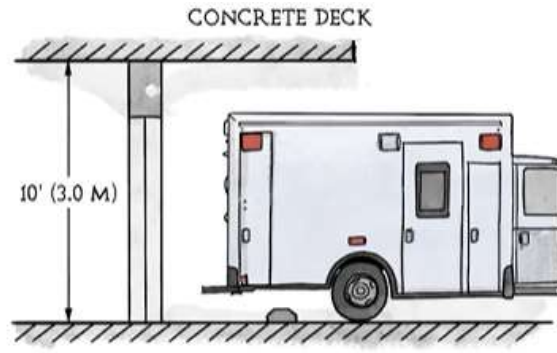
The first step (Step #1) in any sprinkler layout for a space is to first determine **whether or not fire sprinklers are even required** for the space.

1. **Evaluate the building code** for requirements.
  - There was no pertinent guidance from the 2018 IBC or 2012 NFPA 101 that affected this space (both codes were enforceable for this example).
2. **Evaluate NFPA 13** for specific requirements.
  - In this example, an argument *could* be made to omit sprinkler protection for the space.
  - Our code path relevant to this is from the 2018 IBC > which adopts the 2016 NFPA 13 > Chapter 8 Installation Requirements > 8.15 Special Situations > 8.15.7 Exterior Projections > 8.15.7.2 Sprinklers omitted for non-combustible projections (with caveats), and 8.15.7.5 Sprinklers *required* for projections over 2-ft (600 mm) where combustibles are *stored*.
  - We also checked the *latest* edition of NFPA 13 to see if newer clarification existed, and there was in the 2022 Edition Annex material.
  - Other resources here include forums, informal interpretations, and formal interpretations.
  - Here, the overhang is non-combustible, but an argument could be made that a parked ambulance be considered combustible storage, or an argument could be made that the parking is temporary and not storage. Annex material of NFPA 13 seemed to support the later position.
3. **Because of the ambiguity** on protection, we **made a recommendation to the building owner** to voluntarily protect this space.
  - This is a critical area of the building (an Emergency receiving area of a hospital), and it would be especially sensitive to disruption from a fire.
4. If the owner had wished to pursue omitting sprinkler protection, we would have **engaged the AHJ** with the code information for an interpretation.

The next step (Step #2) will be to determine the Hazard Classification (in the next segment).



Plan View of Ambulance Bay



Section View of Ambulance Bay

## CODE/STANDARD REFERENCES



NFPA 13 – 2016: Section 8.15.7.2 Sprinkler Omissions for Non-Combustible Overhangs

NFPA 13 – 2016: Section 8.15.7.5 Sprinklers Required for Projections Over 2-ft (600 mm) where Combustibles are Stored

NFPA 13 – 2022: Section 9.2.3 Sprinkler Omissions for Exterior Projections

NFPA 13 – 2022: Section 9.3.19 Sprinkler Exterior Projections

## VIDEO LINK

[www.meyerfire.com/university/layout-example-ambulance-bay-part-i](http://www.meyerfire.com/university/layout-example-ambulance-bay-part-i)

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