# Bennett-Watkins Fire Rescue

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*"Striving to Preserve Life and Property"*


## Fire Apparatus Design Criteria

**1.1 Overview:**

The following dimensions used be Bennett-Watkins Fire Rescue are based upon a 105' aerial platform design which is the largest fire apparatus expected to operate in the jurisdiction. All required fire apparatus access road designs within a development shall be able to accommodate the dimensions detailed below. The District may require computer design or simulated exhibits demonstrating proposed fire apparatus access roads perform based on these criterion.

*The specifications provided do not replace or negate any applicable International Fire Code requirements as adopted by the District, rather they are to be used as supplemental design criteria to assist in ensuring fire apparatus access roads serving development are functional. Deviations from this design criteria is not allowed without written permission from the Fire Marshal.*

**1.2 Apparatus Dimensions & Specifications:**

| **Apparatus Dimensions** | **Turning Radii Specifications** |
|---|---|
| Overall Length: 46'-8" | Inside Turn: 28' |
| Width: 8' | Curb to Curb: 46' |
| Height: 11'-6" | Wall to Wall: 52' |
| Wheel Base: 254" | |
| Number of Axles: 3 | |
| Front Overhang: 149" | |
| Rear Overhang: 154" | |
| Axle to Axle: 52" | |
| Tire Height: 42" | |
| Weight: 70,000lbs GVWR | |

**1.3 Definitions:**

The following definitions address components of the apparatus and related design criteria. Refer to Figure 1.3 – *Apparatus Definitions* on page two.

**Overall Length:** Overall length of apparatus measured from the rear bumper to the front of the aerial platform.

**Width:** Width of apparatus measured from side to side.

**Height:** Height measured from grade to highest point of the apparatus.

**Wheelbase:** Distance between the centerlines front and rear axles of the apparatus. When apparatus is equipped with a tandem rear axle, the centerline between the rear axles is used.

**Chassis Overhang:** Distance from the centerline of the front axle to the front edge of the cab. This does not include bumper depth or the platform overhang.

**Additional Bumper Depth:**

Depth added to the front overhang by the front bumper.

**Front Overhang:** The aggregate overhang from the centerline of the front axle to the front edge of the aerial platform. This dimension is used to determine the wall to wall turning radius.

**Rear Overhang:** Distance from the centerline of the rear axle to the rear tailboard. When apparatus is equipped with a tandem rear axle, the centerline between the rear axles is used.

**Axle to Axle:** Distance between the centerline of the rear tandem axles.

**Figure 1.3 – *Apparatus Definitions*:**