



11.0 Fire Department Site Plan Review Checklist

500 W. Pennsylvania Ave. * Southern Pines, NC 28387 * Phone (910) 692-2720 * www.southernpines.net/fire

Property Information

Building Name: _____

Address: _____

Contact Person: _____

Phone: _____ E-mail: _____

Building

Occupancy Type: _____

Square Footage: _____

Number of Stories: _____

Construction Type: _____

Occupant Load (based on net gross): _____

Fire Sprinklers or Standpipe System

Fire Alarm System

Commercial Kitchen Hood System

Underground or Aboveground Fuel Storage Tanks

Other: _____

The items in the list below are the minimum requirements and must be addressed during site design.

Site Access:

Fire access roads shall be designed to support the imposed load of a fire apparatus weighing 75,000 lb. gross vehicle weight. **(503.2.3)**

Access roads shall have a minimum of 13 feet 6 Inches of vertical clearance and 20 feet unobstructed width. **(503.2.1)** Additional road width of (26 feet) may be required for buildings that require aerial apparatus access. Required access roads should not travel through parking stalls, stacking lanes, loading areas or other designated use areas.

Fire access roads shall be constructed of an all-weather driving surface such as asphalt, concrete, chip-seal (oil matting) or similar surface along an approved route around the exterior of all buildings. Grass pavers may be permitted for secondary access roads no longer than 200 feet in length with a low 6 inch concrete curb provided along the edges to outline and identify the driving area along with fire lane signage. **(503.2.3)**

All portions of the building's exterior walls shall be within 150 feet of the fire access road. **(503.1.1)** Access roads may be extended to 200 feet for buildings equipped with an approved automatic sprinkler system installed. When fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection may be approved.

Turnarounds shall be provided for any dead-end road in excess of 150 feet in length. **(503.2.5)** Dead-end roads in excess of 150 feet resulting from a phased project are required to be provided with temporary approved turnarounds.

Additional access road(s) may be required for residential projects with more than 100 dwelling units. **(503.1.2)** Commercial buildings may require additional access depending on design.

Fire apparatus access road(s) maximum grade shall not exceed 10 percent unless otherwise approved. As an alternate for grade exceeding 10 percent: Access grade shall not exceed 10 percent, but if it does, the first portion of the grade shall be limited to 10 percent for a length of 200 feet and then 15 percent to 20 percent for a maximum of 200 feet, repeat the cycle as necessary or as approved by a fire code official. **(503.2.7)**

The turning radius for the emergency apparatus road(s) shall be in accordance with Southern Pines Fire Department Turning Performance Analysis data sheet. Overlays of the template shall be shown on the plans with turning in both directions. **(503.2.4)** Final approval for all turning radii shall be field verified by the fire department prior to Certificate of Occupancy.

The angles of approach and departure for fire apparatus access shall not exceed 8 degrees. **(503.2.8)**

A plan for fire access during construction shall be provided. **(501.4)**

Details for **No Parking Fire Lane** signage including road striping (cross-hatching) area shall be indicated on the plans. **(503.3)**

Security gate(s) across fire access roads shall be electronically operated by siren and are provided with fire department KnoxBox key switch override and optical sensors and comply with ASTM F2200. Gate openers shall be listed in accordance with UL 325 **(503.6)**

Where a bridge or elevated surface is designed in a Fire Apparatus Access Road, then the bridge shall be constructed and maintained to AASHTO HB-17 and designed for a live load sufficient to carry a 75,000 lbs. fire apparatus. Vehicle load limits shall be posted at each entrance to the bridge **(503.2.6)**.

Traffic calming devices shall be prohibited except when approved by the Fire Code Official **(503.4.1)**

Site Water and Fire Protection:

Fire flow calculations have been determined using the current (ISO Guide for Determination of Needed Fire Flow) and report submitted with the plan. **(507.3)**. *Note: The minimum required flow shall not be less than 1500 GPM. for commercial and 1000 GPM. for residential developments.*

The most remote exterior portion of a non-sprinklered building shall be within 400 feet of a fire hydrant. **(507.5.1)** Existing fire hydrants along approved routes may be considered if the locations meet the public safety objectives of the fire department. Spacing between fire hydrants shall not exceed 500 feet.

All existing and proposed water mains and fire hydrant locations and size(s) are indicated on plans.

Fire system backflow prevention devices are located inside the building and indicated on plans. **(903.3.5)**

Fire Department Connections (FDC) for fire sprinklers or standpipes are located remotely from the building exterior outside of the collapse zone and within 50 feet of a fire hydrant with details for construction of FDC including underground piping and valves shall be provided. **(903.3.7)**

Landscaping plan has been checked to verify that clear space is maintained around fire hydrants, FDC and other fire protection equipment. **(507.5.5)**

***Note:** When approved as an alternative material and method, the building may be protected throughout by an approved automatic sprinkler system, if the minimum required fire flow is not available or other requirements of the code cannot be met.*