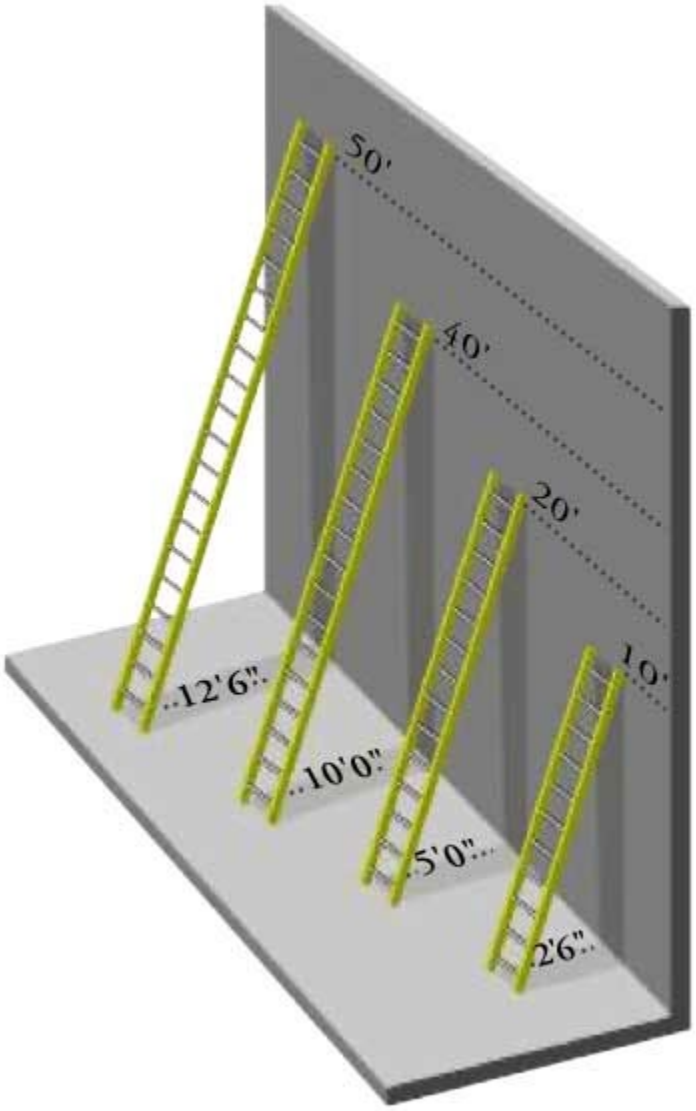
Fire Ladder Placement

Recommended ladder placement is at a 75 degree angle, or ¼ of the ladder working height. Firefighters prefer an angle between 55-70 degrees as it is less steep and easier to use for rescues and access. A ladder setup to an angle of less than 50 degrees poses a hazard as the ladder can kick out away from the building unless it has a stop on the legs, such as a walkway. Below is a diagram showing the approximate distance for ladders from a building surface:



A normal 2 story building is about 10 feet from the grade to the sill of a second floor window. The sill is the optimum placement of the top of the ladder against the building for

the best path of emergency egress. The base of the ladder would be optimally 2’-6” from the building.

Note: this ladder setup is at less than 75 degrees (which is typical for actual placement). If a fence was along the edge of the walkway on the side towards the building, this would be more difficult to use.

The ladder is also used for roof operations, such as venting. Normally, the distance to the roof is about 18-20 feet to the soffit. That would require between 4.5-5’ distance from the soffit to the base of the ladder.

Ladder for second floor and second ladder for roof access (left side of photo)

Multiple ladders for access to different window/roof levels.

Patient removal – Gurney/Stretcher

Patients removed by gurney normally have a more serious injury or medical issue. A normal gurney is about 2 feet wide, but additional personnel and equipment requires 4-5 feet of clearance. For medical attention that requires continuous treatment (heart or other similar issue), responders have to maintain their procedures continuously. In many cases, it may require that more than one responder treating a patient.

Having only a 3 foot clear path will restrict treatment during transport. Here are a couple of photos showing gurney transport with patient treatment: