How to Select Portable Wheelchair Ramps

Choosing a portable ramp for your wheelchair or scooter is not rocket science, but it needs a few considerations. Here's a general guideline we put together based on our experiences. We are assuming that you already know what portable wheelchair ramps are. If not, you can **click here** and read about it.

Ramp Width

It is easy - make sure you wheelchair or scooter fits within the ramp with some safety margin. If the ramp is to be used on the side door of a van, make sure you have enough door opening for the ramp (30-inch for our ramps). Most but not all mini vans have 30-inch door opening. If side entry is a problem, consider using ramps on the back door. LiteRamp ™ ramps can be used on the back doors of almost all vans, trucks, and SUV's.

Ramp Length and Incline

Ramp length is important because it dictates the angle or incline for the vertical height, or rise. The sections below will discuss how to choose a proper incline. But to get an idea, you can use the calculator here to see how it works: first, type in your vertical rise in inches, then, type in a ramp length in foot, click the calculate button, the incline will be displayed. Or you can leave the ramp length empty, type in an incline, and let the calculator figure out the ramp length for you.

Enter vertical rise (inches)

Enter ramp length (feet)

Ramp Angle (degrees)

Most permanent handicap ramps in front of a public building have an incline of 4.8 degrees.

Recommended Inclines for Power Chairs and Scooters

Every power wheelchair or scooter has a maximum allowable incline. We recommend you choose a ramp that does not form an angle above the maximum allowable incline.

Some power wheelchair or scooter manufacturers report the maximum allowable incline in the user's manual. It is usually between 6 to 9 degrees for occupied (i.e., with someone sitting in it) chairs. When a chair is un-occupied, it can climb up a somewhat steeper angle. The following tables is a very general guideline for loading un-occupied chairs into a vehicle:

Ramp Length	Vehicle Entrance
6'	side doors of mini vans, back doors of small SUV's
7'	side / back doors of mini vans and small SUV's, tail gates of small pickup trucks

8'	side / back doors of full-size vans and large SUV's, tail gates of medium pickup trucks
10'	tail gates of large pickup trucks, back doors of full-size vans

Recommended Inclines for Manual Wheelchairs

Getting a manual wheelchair up on a ramp has a lot to do with physical strength. Apparently, a longer ramp makes it easier. As a starting point, we recommend a 6:1 ratio (6-inch ramp length for each inch of rise), or 9.6 degrees. You can go higher or lower on the incline using your own judgment. The table below is a snapshot for the 6:1 ratio:

Ramp Length (ft)	2	3	4	5	6	7	8	10
Rise (in) based on 6:1 Incline	4	6	8	10	12	14	16	20

Turning Radius

After you pick up a ramp length, there are a few things to check. Sometimes you have to make a turn before getting on the ramp or after getting off the ramp. Do you have enough room to make the turn? For example, ramp is used indoor, or lands on a deck or a driveway with a wall nearby.

Clearance

Another thing to check is to make sure the ramp would clear all the stairs it is used on. This is important if the ramp is used on multiple stairs. If you cannot find a reason ramp length to clear the stairs, you may have to go with several shorter ramps instead of using one ramp. The calculators below will figure out the MINIMUM ramp length to clear 2 or 3 stairs: