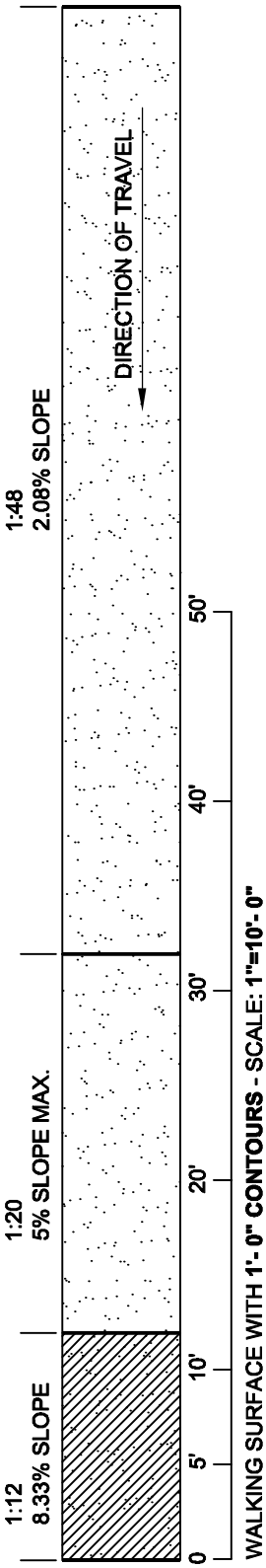
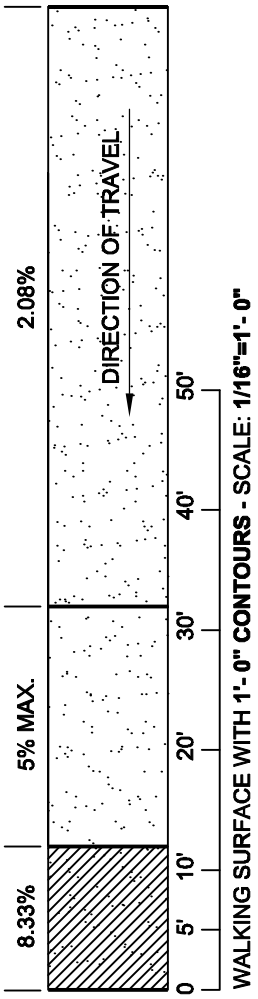
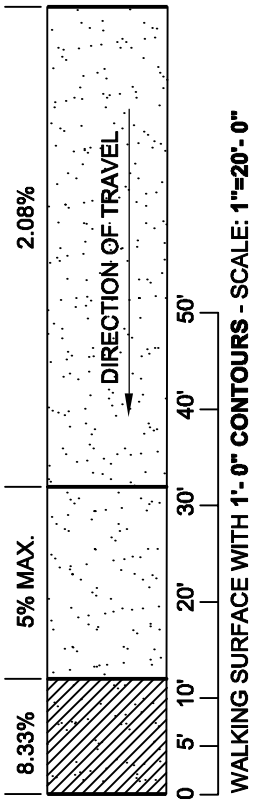
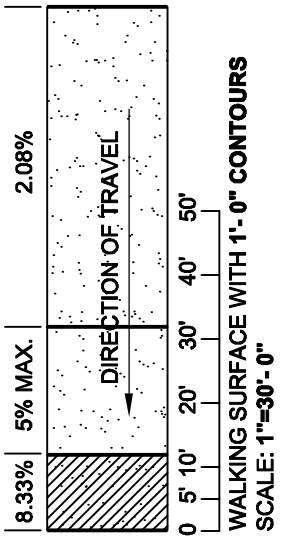
2010 ADA Standards - Plan Review Tools - Slopes

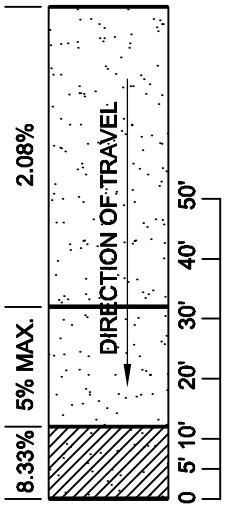
Running Slopes of Walking Surfaces

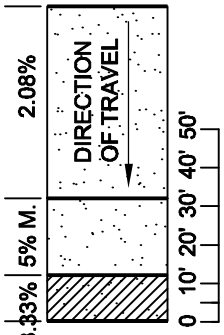


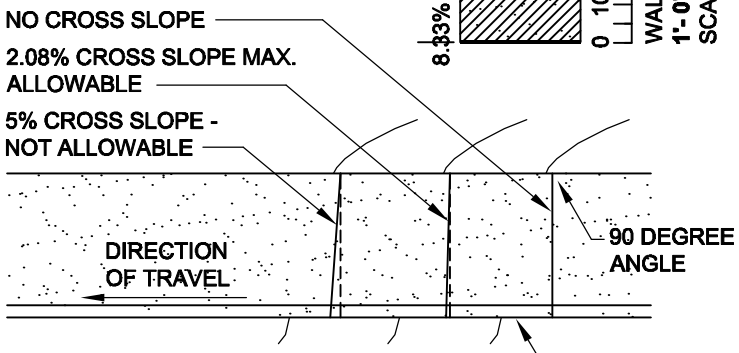








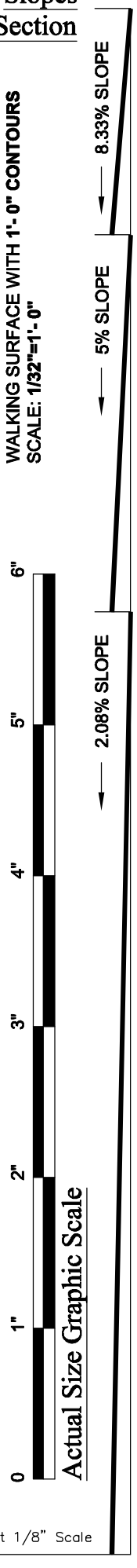




Cross Slopes in Plan - not to scale

TOPO LINES CROSSING ACCESSIBLE ROUTE

Slopes in Section



Notes

1) TO DETERMINE SLOPE OF WALKING SURFACE ON SITE PLAN OR GRADING PLAN, PLACE THIS ACETATE SHEET OVER PLAN AND COMPARE CONTOUR INTERVALS ON PLAN WITH THE CORRESPONDING SCALE DIAGRAM ON THIS SHEET - 1' CONTOURS SHOWN ON THIS SHEET - **VERIFY CONTOUR INTERVAL OF PLAN**

2) 2.08% IS THE MAXIMUM ALLOWABLE CROSS SLOPE FOR ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND OTHER "LEVEL" AREAS - DESIGN AT 1.5% PREFERRED

3) 5% IN THE DIRECTION OF TRAVEL IS THE MAXIMUM ALLOWABLE SLOPE OF AN ACCESSIBLE ROUTE WITHOUT MEETING ALL RAMP REQUIREMENTS - DESIGN AT 4.25% PREFERRED

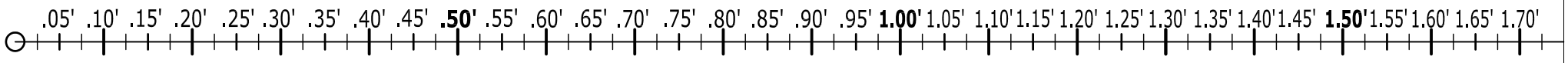
4) 8.33% IS THE MAXIMUM ALLOWABLE SLOPE OF RAMPS AND CURB RAMPS - DESIGN AT 7.5% PREFERRED

5) RAMP SLOPES SHOWN CROSS-HATCHED MUST HAVE LEVEL LANDINGS

6) SLOPES STEEPER THAN 8.33% NOT ALLOWED EXCEPT IN EXISTING FACILITIES WITH TECHNICALLY INFEASIBLE CONDITIONS

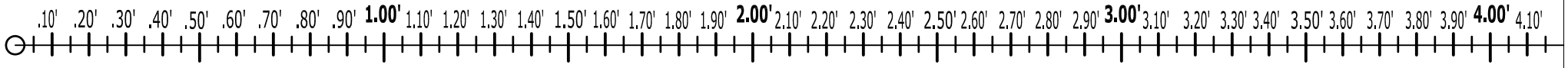
7) CONSTRUCTED WALKING / ROLLING SURFACES SHOULD NOT EXCEED MAXIMUM SLOPES AND CROSS SLOPES ABOVE IN ANY ACCESSIBLE LOCATION WHEN MEASURED WITH A 24" LONG DIGITAL SLOPEMETER

Print at 1/8" Scale



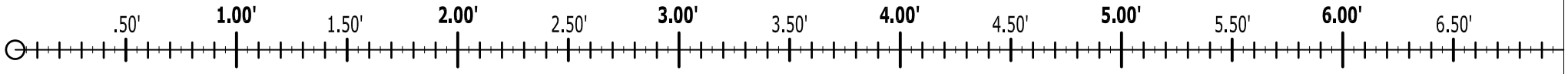
2.08% or 1:48. This is considered level.

1/8" = 1'-0" SCALE



5% or 1:20. This the maximum accessible non-ramp running slope.

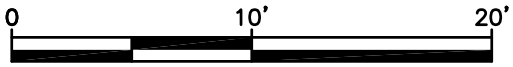
1/8" = 1'-0" SCALE



8.33% or 1:12. This is the maximum accessible ramp and curb ramp slope.

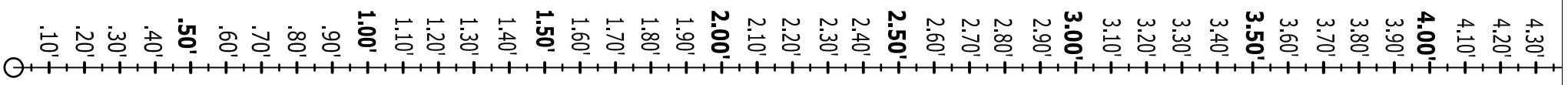
1/8" = 1'-0" SCALE

1. Use this Slope Tool to check that the spot elevations shown in a grading plan /topographic map /survey do not exceed the maximum allowable slope. Make sure you are using the appropriate slope tool in terms of both scale and application.
2. The numbers running from left to right (for example .05',.10', etc) represent an allowable vertical change in elevation as measured horizontally starting from the circular origin (0) at the left of the slope tool.
3. If the spot elevation happens to be located at a whole foot (i.e. 100.00') then locate the origin over a spot elevation and align the slope tool's axis with the adjacent spot elevation in question.
4. If the adjacent spot elevation (i.e. 100.05') is located closer than the corresponding decimal (i.e. .05') on the slope tool then the actual gradient is steeper than the given allowable slope.
5. If the spot elevation does not happen to be located at a whole foot (i.e. 100.15') then shift the the scale to the left in order to align with the Slope Tool's corresponding decimal (i.e. .15'). Then proceed with the comparison.



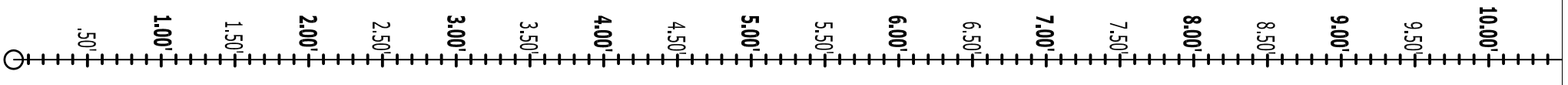
1/8" = 1'-0" SCALE

Slope Tool



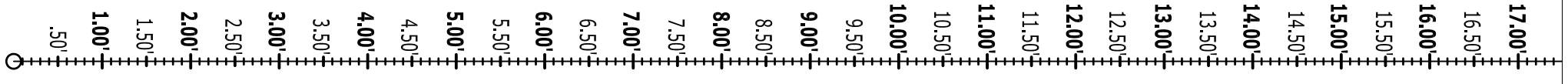
2.08% or 1:48. This is considered level.

1" = 20'-0" SCALE



5% or 1:20. This the maximum accessible non-ramp running slope.

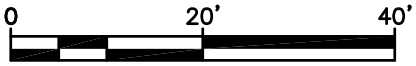
1" = 20'-0" SCALE



8.33% or 1:12. This is the maximum accessible ramp and curb ramp slope.

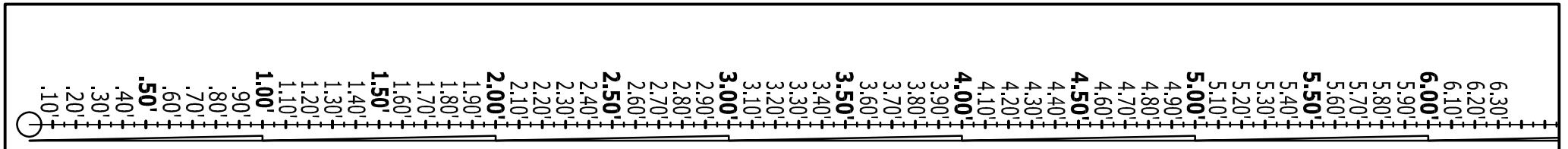
1" = 20'-0" SCALE

1. Use this Slope Tool to check that the spot elevations shown in a grading plan /topographic map /survey do not exceed the maximum allowable slope. Make sure you are using the appropriate slope tool in terms of both scale and application.
2. The numbers running from left to right (for example .05',.10', etc) represent an allowable vertical change in elevation as measured horizontally starting from the circular origin (0) at the left of the slope tool.
3. If the spot elevation happens to be located at a whole foot (i.e. 100.00') then locate the origin over a spot elevation and align the slope tool's axis with the adjacent spot elevation in question.
4. If the adjacent spot elevation (i.e. 100.05') is located closer than the corresponding decimal (i.e. .05') on the slope tool then the actual gradient is steeper than the given allowable slope.
5. If the spot elevation does not happen to be located at a whole foot (i.e. 100.15') then shift the the scale to the left in order to align with the Slope Tool's corresponding decimal (i.e. .15'). Then proceed with the comparison.



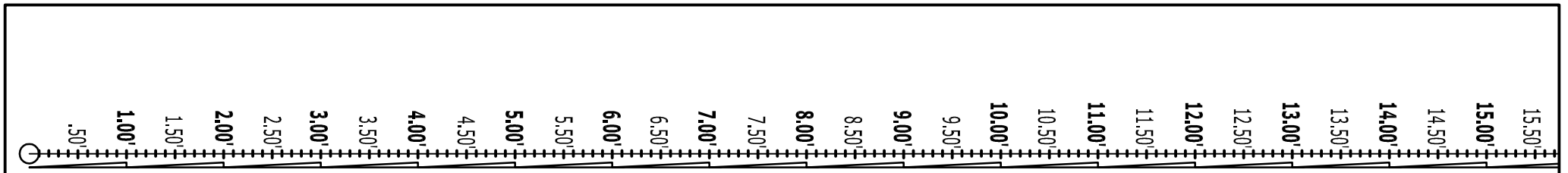
1" = 20'-0" SCALE

Slope Tool



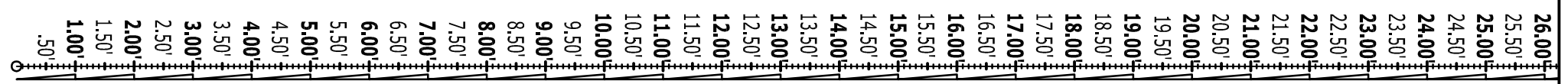
2.08% or 1:48. This is considered level.

1" = 30'-0" SCALE



5% or 1:20. This is the maximum accessible non-ramp running slope.

1" = 30'-0" SCALE

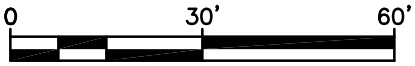


8.33% or 1:12. This is the maximum accessible ramp and curb ramp slope.

1" = 30'-0" SCALE

DIRECTIONS FOR USE:

1. Use this Slope Tool to check that the spot elevations shown in a grading plan /topographic map /survey do not exceed the maximum allowable slope. Make sure you are using the appropriate slope tool in terms of both scale and application.
2. The numbers running from left to right (for example .05',.10', etc) represent an allowable vertical change in elevation as measured horizontally starting from the circular origin (0) at the left of the slope tool.
3. If the spot elevation happens to be located at a whole foot (i.e. 100.00') then locate the origin over a spot elevation and align the slope tool's axis with the adjacent spot elevation in question.
4. If the adjacent spot elevation (i.e. 100.05') is located closer than the corresponding decimal (i.e. .05') on the slope tool then the actual gradient is steeper than the given allowable slope.
5. If the spot elevation does not happen to be located at a whole foot (i.e. 100.15') then shift the the scale to the left in order to align with the Slope Tool's corresponding decimal (i.e. .15'). Then proceed with the comparison.



1" = 30'-0" SCALE

Slope Tool