

## ADA Webinar 2 – Questions and Answers

The questions submitted during the webinar follow with answers that our speakers have provided.

1. Concerning expansion joints. We have contractors install full depth expansion joints where the sidewalks meets the back of street. Is this the desirable preference? Is there a better location to install the expansion joint?

It is a common design, and is accessible so long as it does not leave a greater than ½ inch gap for a cane to get stuck in. When it is flush, and filled with a joint sealer, they usually present no documented concerns that we are aware of.

2. Concerning ramps with gutter, if the road grade remains the same, you would have to raise the invert of gutter to decrease those grades, causing "damming."

Inverts do transition to flush connections at the interface of a curb ramp and a street. In our experience, the grade of the road falling towards the ramp, combined with the counter slope of the ramp falling towards the road, allows the water to continue on it's path and reconnect with the inverted gutter on the backside of a ramp.

3. For the 200 ft spacing where a 5 ft passing area is to be provided, can a driveway at the proper spacing serve for this?

If the space has a cross slope of less than 2% it can count as passing space.

4. Is it ok to install ADA ramps in/on a median nose at a signalized intersection where the medians do not have peds/push buttons?

Our recommendation would be to install a cut through at this location, which would eliminate the need for a ramp on the nose of an island.

5. Jackie's sidewalk photo appears to show a 4' (or close to that?) level. Does Wisconsin consider it standard to use a 4' level? In my NC municipality, because of comments from our Transition Plan consultant, we have switched over to 2' levels for all inspectors. The length of the level can make a difference in the slope reading. Our consultant indicated that DOJ typically uses a 2' level when exploring complaints. Do you have any thoughts or comments on level length?

In our experience, we generally use 2' levels as well. Agreed the picture showed a 4' level. The reason 2' levels are preferred for inspection is because wheelchair bases tend to be 2' apart.

6. Keying truncated domes into concrete at back of curb, minimum gap between dome and curb?

Domes are required to be installed 6 to 8 inches behind the face of curb per PROWAG's guidance. WisDOT allows up to 9 inches behind the face of curb to be fully clear of the expansion joint location.

7. We were under the impression that the maximum counter slope is 5%. Therefore, we believe the maximum algebraic difference is 13% not 11%. Is this incorrect?

Agreed. PROWAG allows for a max 5% grade of the pedestrian street crossing, and an allowable maximum ramp slope of 8.333%. The combination of the two creates a maximum allowable 13.333% counter slope. WisDOT has chosen to implement a tighter standard to allow for a combination of 11% to aid in improved wheelchair mobility.

8. When you say 2% max. in any direction on a landing, does that include slope measured diagonally?

PROWAG does not have a specification for slope in a diagonal direction. The algebraic result of a 2% in the 'x' direction and 2% in the 'y' direction would clearly indicate the hypotenuse is greater than 2% - but don't get wrapped up in this, there is NO requirement, and NO need, for taking diagonal readings.

9. Why the 2" curb height between ramps? Why not flat?

The 2" was a 'minimum' height for locations that choose to install flares. If an ultimate curb height of 2" could not be achieved, installation of grass is a ramp splitter option. A full radius blended transition would also be appropriate, assuming the entire radius is intended for pedestrian use.

10. Are Missouri jurisdictions modifying roadway approaches at stop or yield conditions so that crosswalk slope is 2% max or less?

Yes – these are extensively being installed throughout the state of Missouri. I will elaborate and share some different ways agencies are implementing:

- Some cities will table their intersections during concrete slab replacement contracts.
- Some table their intersections during resurfacing/alteration projects (typically federally funded projects).
- Some will let ADA specific projects and reconstruct all ped facilities within a corridor.

11. At what cross-slope do you have to rebuild the approach for side streets when constructing crossings and curb ramps?

If the existing cross slope exceeds the maximum allowable provided for in PROWAG, that pedestrian street crossing should be on a transition plan and have a schedule for reconstruction: From PROWAG:

R302.6 Cross Slope. Except as provided in R302.6.1 and R302.6.2, the cross slope of pedestrian access routes shall be 2 percent maximum.

R302.6.1 Pedestrian Street Crossings Without Yield or Stop Control. Where pedestrian access routes are contained within pedestrian street crossings without yield or stop control, the cross slope of the pedestrian access route shall be 5 percent maximum.

R302.6.2 Midblock Pedestrian Street Crossings. Where pedestrian access routes are contained within midblock pedestrian street crossings, the cross slope of the pedestrian access route shall be permitted to equal the street or highway grade.

12. Can there be a flare into a vertical curb?

We need clarification on this question.

Only flares that serve as an integral part of the pedestrian access route are bound by the rules of PROWAG. If you are constructing a flare into a curb face, which would not seem to be constructed for pedestrian travel, your local design guidelines would take precedence.

13. Do you approach ramps inside splitter islands the same way as curb ramps? With many splitter islands being flat, how do you avoid dirt and debris from settling in these areas with flat grades?

Anytime we are in grades of 5% to 8.333% we are in ramp condition, and when ramping at splitter islands, the same rules apply. When choosing to install cut-throughs at splitter islands, we are in blended transition requirements. Also noteworthy, when installing cut-through PAR's, the minimum width jumps up to 5 feet.

In places of low grade, where stormwater can tend to build up silt, maintenance will be necessary, which may include periodic debris removal (as is done on roadway and shoulders that hold the same).

14. For areas that are out of spec AND in a mode that could support some small diamond surface grinding, is this permitted? Obviously this could not be done everywhere, but the specific concern is to the finished possibly polished texture?

This would be an area specific allowance. PROWAG has no objections to grinding into compliance, so long as the final product is 'firm, stable and slip resistant'.

15. Is the several page "cheat sheet" with key information being provided? This was mentioned in the first webinar.

It will be a 2 page 'cheat sheet' and it will be sent out with these Q&A responses.

16. If your focus is on building a minimum cost to meet minimum requirements, aren't you being short sighted? Shouldn't we be trying to build something that is going to function well for users, even if it takes a bit more effort and cost? This facility will be the pedestrian facility for the next 20, 30, maybe even 50 years.

The goal in public service tends to strive towards achieving the desired products at the most responsible price – we do not see this to be different. The intent of publishing PROWAG at the Federal Level is to provide states a design document that when followed will provide accessibility for all users. Building to the requirements established therewithin is considered a 'Best Practice'.

17. When you talk about "high costs" of survey and design for ADA ramps, what % increase in overall design costs are we talking about? Is it really that significant of a percent increase compared to the overall survey and design costs for the project?

Best practices for design and construction of ADA facilities certainly will vary throughout the country. In this presentation you heard WisDOT has moved from a generic standard ramp design philosophy to a more detailed design. This methodology is completely appropriate, and utilized widely throughout the country.

Speaking from my local Missouri experience, the methodology I presented on is meant to be another example of how compliance can be achieved. Having utilized the Per Each Ramp methodology for over a decade now, the survey and design costs associated with this practice produce scope and fees somewhere in the order of 30-50% lower.