



SIDEWALK RAMPS

Sidewalk ramps are short ramps cutting through a curb or built up to it that provide the transition from the sidewalk to the street. Sidewalk ramps are essential in providing mobility to persons with mobility impairments. They also contribute to overall utility and livability for a wide range of users, including people pushing strollers, delivery carts, or dollies; people pulling luggage or utility carts; and people walking with a cane, crutches or a bicycle.

USE

- Sidewalk ramps are generally necessary at all marked pedestrian crossings, both at intersections and at midblock locations.
- Sidewalk ramps are required with any sidewalk construction or reconstruction at intersections or other crossing points.
- Sidewalk ramps are used with both sidewalks and shared use paths.
- Sidewalk ramps may be used to provide access to accessible curbside parking spaces or passenger loading areas.
- Sidewalk ramps, including temporary ones, should be provided when a pedestrian detour is needed to maintain access during sidewalk closures.

DESIGN

- Sidewalk ramps shall adhere to standards established by the Michigan Department of Transportation (MDOT) in compliance with Public Rights-of-way Accessibility Guidelines (PROWAG).
- Sidewalk ramps generally consist of four basic components:
 - The approach, which is generally the sidewalk leading to a sidewalk ramp.

- The landing is a clear level area at the top of the ramp and must be at least 48" square.
- The ramp extending between street and sidewalk grades. Sidewalk ramps with slopes less than 5% tend to be more user friendly. Sidewalk ramps between 5% and 8.3% are acceptable, but should provide a landing area. Areas that require slopes greater than 8.3% may need to utilize a "switchback" design to keep slopes within the acceptable range. A 2% landing is always required if there is a turning movement needed.
- Flares are triangular areas flanking the ramp and joining with the approach surface. Flares may have a maximum slope of 10%.
- Sidewalk ramps should be the width of the sidewalk and must be a minimum of four feet wide, although six feet is generally preferred. Areas with high concentrations of pedestrian traffic and/or shared use paths may require even wider sidewalk ramp openings.
- Sidewalk ramps should be oriented perpendicular to the natural curb line and oriented to the desired line of travel, typically indicated by the center of the crosswalk. Separate ramps are typically provided for each directional crossing. Corner sidewalk ramps should not be used. (Perpendicular sidewalk ramps on tangent or directional ramps on radius of corner aid snow removal because plows are traveling straight along the edge of the ramp. Ramps that are located on the radius of the ramp are more susceptible to plows leaving a wedge of snow in front of ramp from traveling past).
- The sidewalk ramp shall lie within the area of the crosswalk. Side flares may extend beyond the width of crosswalk if

necessary. A sidewalk ramp is not needed if a person in a wheelchair would not approach from that side (if the ramp abuts a planter, flower bed, tree pit, driveway approach, etc.).

- Where sidewalk ramps lead to a legal crossing, ramps shall be provided at both ends of the crossing.
- Detectable warning strips with a color that contrasts with the surrounding pavement are required.

SPECIAL CONSIDERATION

- Sidewalk ramps should be designed to avoid water ponding at the base of the ramp.
- Sidewalk ramps should be constructed of concrete. Pavers or other special materials should not be used without city approval and a maintenance agreement.

OPERATIONS AND MAINTENANCE

- Adjacent property owners are responsible for snow clearance from sidewalk ramps. All parts of the path used by a person in a wheelchair must be cleared, from the sidewalk to the roadway, particularly after a snowplow as cleared the street.¹³

¹³ Grand Rapids Municipal Code, Chapter 58, Article 3, Snow and Ice Removal https://www.municode.com/library/mn/grand_rapids/codes/code_of_ordinances?nodeId=COOR_CH58STSIOTPUPL_ARTIINGE_S58-3SNICRE

REFERENCES

- City of Grand Rapids Street Classification Policy, 1996
- Section 7. Pedestrian Movement, 7.5, 7.9
- Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way
- Chapter R3: Technical Requirements
- AASHTO: Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
- Section 3.3.5: Sidewalk and Curb Treatments at Pedestrian Crossings
- AASHTO: A Policy on Geometric Design of Highways and Streets (Green Book), 2011
- Section 4.17.3: Curb Ramps

DETAILS

- City of Grand Rapids Standard Construction Specifications, 1993 Edition
 - Standard Details P-9 Sidewalk Ramp in Paved Parkway
 - Standard Details P-9A Sidewalk Ramp in Unpaved Parkway
 - Standard Details P-9B Location of Sidewalk Ramps at Intersections
 - Standard Details P-9C Sidewalk Ramp in Reinforced Concrete Over Areaways
- MDOT Road Standard Plans
 - Special Detail R-28-J Sidewalk Ramp and Detectable Warning Details <http://mdotcf.state.mi.us/public/design/englishstandardplans/spdetails/index.htm>

