51-1.03(02) Sidewalk Design Criteria [Rev. Mar. 2016, Sep. 2016]

This section applies to sidewalks within the public right of way and meets the criteria described in the *Public Rights-of-Way Accessibility Guidelines* (PROWAG), dated July 26, 2011. The applicable PROWAG sections are shown in brackets. A determination of technical infeasibility or technical inquiry must be approved for a sidewalk that does not meet the following criteria. See Section 40-8.04(01) Item 3 for submitting a request for determination of technical infeasibility or technical inquiry.

See INDOT *Standard Drawings* series 604-SWDK for sidewalk and driveway crossing details.

1. Width [R302.3]. The sidewalk width is measured exclusive of the curb, i.e. measured from the back face of curb. Sidewalks should be wide enough to accommodate the volume and type of pedestrian traffic expected.

   Where a sidewalk is used in conjunction with a buffer, the minimum width is 5 ft, exclusive of the curb. See Section 51-1.03(01) item 4, for desirable buffer widths. See Figure 51-1A, Sidewalk Clear Width.

   Where a sidewalk is located immediately adjacent the curb, a width of 6 ft should be used to allow additional space for street and highway hardware as well as to provide pedestrian comfort due to the proximity of traffic.

   Where the sidewalk serves commercial areas, schools, or other areas with concentrated pedestrian traffic, a width of 8 ft or greater may be appropriate.

   Where insufficient space is available, the sidewalk width may be reduced to 4 ft for short distances. Where the clear width is less than 5 ft, a passing space must be provided at no more than 200-ft intervals. The passing space must be a minimum of 5 ft by 5 ft. A taper rate of 6:1 should be used to widen and reduce the sidewalk width at passing spaces. See Figure 51-1B, Sidewalk Passing Space.

2. Surface [R302.7]. The sidewalk surface must be firm, stable, and slip-resistant. A change in level of up to 1/4 in. may be vertical and without edge treatment. A change in level of 1/4 in. to 1/2 in. must be beveled with a slope not greater than 1V:2H. A change in level of greater than 1/2 in. should be accommodated with a running slope in accordance with the curb ramp criteria.

   Where a grating is required within the PAR, the grating opening must not exceed 1/2 in. in the direction of pedestrian travel. Where a grating has elongated openings, the grating

must be placed so that the long dimension is perpendicular to the dominant direction of pedestrian travel.

3. Cross Slope [R302.6]. Cross slope is measured perpendicular to the direction of pedestrian travel. The maximum allowable cross slope of a sidewalk is 2.0%. A maximum cross slope of 1.5% is preferred and should be used as a design practice to reduce the likelihood of exceeding the maximum allowable cross slope during construction.

4. Grade [R302.5]. The grade or running slope is defined as the slope parallel to the direction of pedestrian travel. The grade of the sidewalk must not exceed the general grade established for the adjacent roadway.

5. Protruding Object [R210]. Protruding Objects such as street furniture, signal-controller cabinet, light standard, strain pole, utility pole, mailbox, sign support and other objects should not be placed within the width of the sidewalk. Protruding objects can be hazardous for pedestrians, especially pedestrians who are blind or have low vision. Where it is necessary to place a protruding object within the width of the sidewalk, a 4-ft minimum clear width may be provided for a short distance, see Figure 51-1A. For a shared-use path, protruding objects should not overhang into any portion of the shared-use path at or below 8 ft measured from the finished surface. This is to accommodate for bicycle traffic.

6. Curb Ramp [R304]. A curb ramp is used to lower or raise the sidewalk to connect with a public road approach. Each curb ramp must be in accordance with the criteria described in Section 51-1.04.

7. Sidewalk Transition. A sidewalk transition should be used as part of a sidewalk driveway crossing. The sidewalk transition is used to lower or raise the sidewalk to connect with a residential or commercial driveway without yield or stop control. A sidewalk transition has a maximum running slope of 8.33%. A maximum running slope of 8% is preferred as a design practice to reduce the likelihood of exceeding the maximum allowable running slope during construction. Sidewalk transition details are shown on the INDOT *Standard Drawings* series 604-SDWK.

8. Sidewalk Driveway Crossing. A sidewalk driveway crossing is where a sidewalk crosses a driveway with or without a sidewalk transition. Sidewalk driveway crossings should only be used at a residential or commercial driveway intersection without yield or stop control. Sidewalk driveway crossing details are shown on the INDOT *Standard Drawings* series 604-SDWK.