TEMPORARY PEDESTRIAN ACCESS ROUTES HANDBOOK

MaineDOT

Introduction

MaineDOT maintains safe and convenient access for users of its roads, highways, and facilities. The needs and control of all users are an essential part of highway construction, utility work, maintenance operations, and traffic incidents management through temporary traffic control zones.

MaineDOT developed this handbook to help accommodate pedestrians, including persons with disabilities, through and around work zones.

General Requirements

Verify that the contractor follows these guidelines:

If the contractor's activity requires closing a pedestrian pathway, another pathway must be made available nearby, off the traveled way. This pathway must replicate, to the maximum extent feasible, the characteristics of the existing pathway. Special care should be given to areas in public facilities such as schools, hospitals, libraries, post offices, etc.

Advanced signing notification of sidewalk closures must be provided. Pedestrian facilities must be maintained in good condition and kept clear of obstruction.

Traffic control devices, equipment, and other construction materials and features must not intrude into the usable width of the sidewalk, temporary pathway, or another pedestrian facility.

Signs and other devices mounted lower than 7 feet above the temporary pedestrian pathway should not project more than 4 inches into accessible pedestrian facilities.

Channeling devices on each side of temporary pedestrian facilities must be provided to protect pedestrian traffic from hazards due to work activities or adjacent vehicular traffic.

If overhead work exposes pedestrians to falling objects or debris, an overhead covering must be provided as necessary.

When affected by an activity, a continuous unobstructed pathway connecting all existing accessible elements (parking lots, bus stops, business, residential entrances, etc.) throughout the project must be maintained.

The temporary pedestrian route must comply with American with Disability Act (ADA) standards to the maximum extent feasible. Areas where compliance cannot be met, must get approval.

The contractor is responsible for accommodating pedestrians through the work zone whenever the work disrupts pedestrian facilities.

2009 MUTCD Requirements

The following three items should be considered when planning for pedestrians in temporary traffic- control zones:

1. Pedestrians should not be led into conflicts with work site vehicles, equipment, and operations.
2. Pedestrians should not be led into conflicts with vehicles moving through or around the work site.
3. Pedestrians should be provided with a reasonably safe, convenient, and accessible path that replicates as nearly as practical the most desirable characteristics of the existing sidewalk or footpath.

General Considerations

The contractor should consider the following items when planning the temporary work zone:

A pedestrian route must not be severed or moved for non-construction activities such as parking for vehicles and equipment.

A barrier, detectable by a person with a visual disability traveling with a long cane, must be placed across the width of the closed sidewalk they would typically use (**See Figure 1.**)

A reasonably safe route that does not involve crossing the roadway must be considered first. If this is not possible, advance signing should direct pedestrians to cross to the opposite side of the road. Place these signs at intersections in urban and suburban areas with high vehicular traffic volumes. (**See Figure 2.**)

Figure 1—Closure Barrier

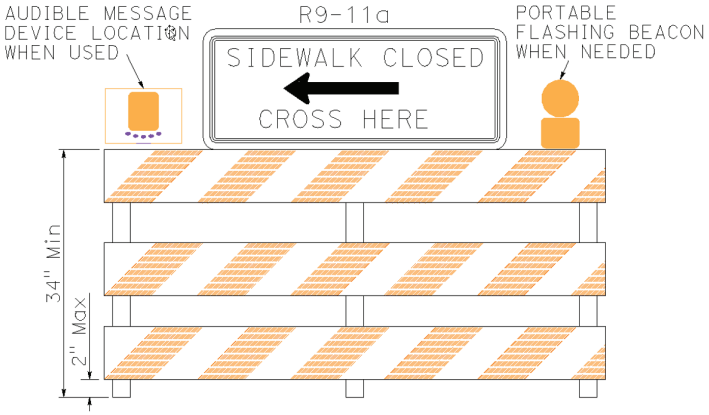
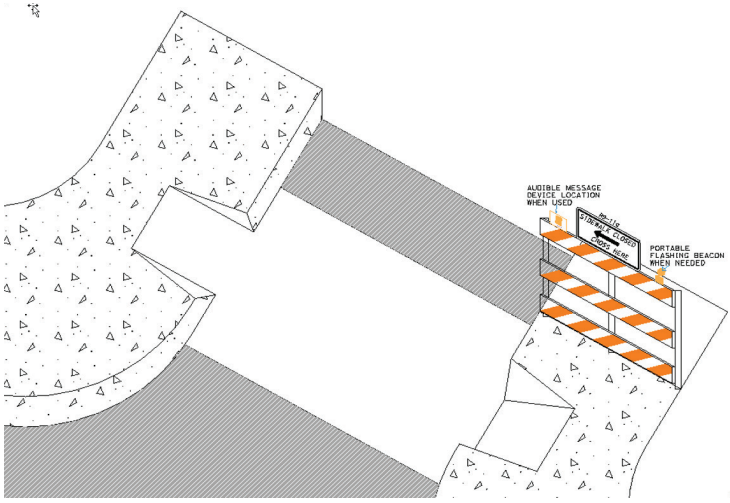


Figure 2—Sidewalk Closure



Midblock work sites should not induce pedestrians to attempt skirting the work site or make a midblock crossing. (**See Figures 3 and 4.**)

Figure 3—Sidewalk Detour or Diversion

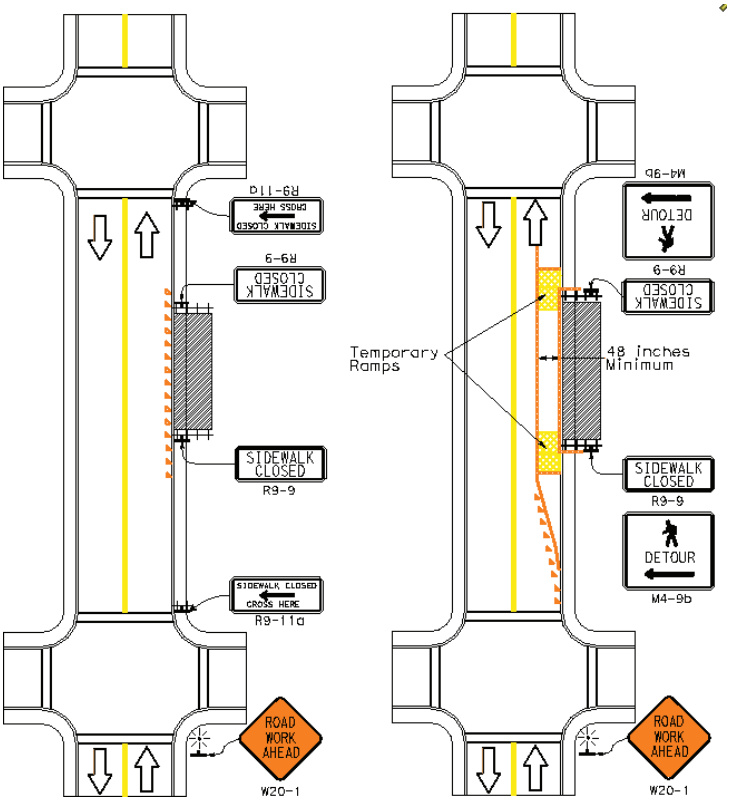
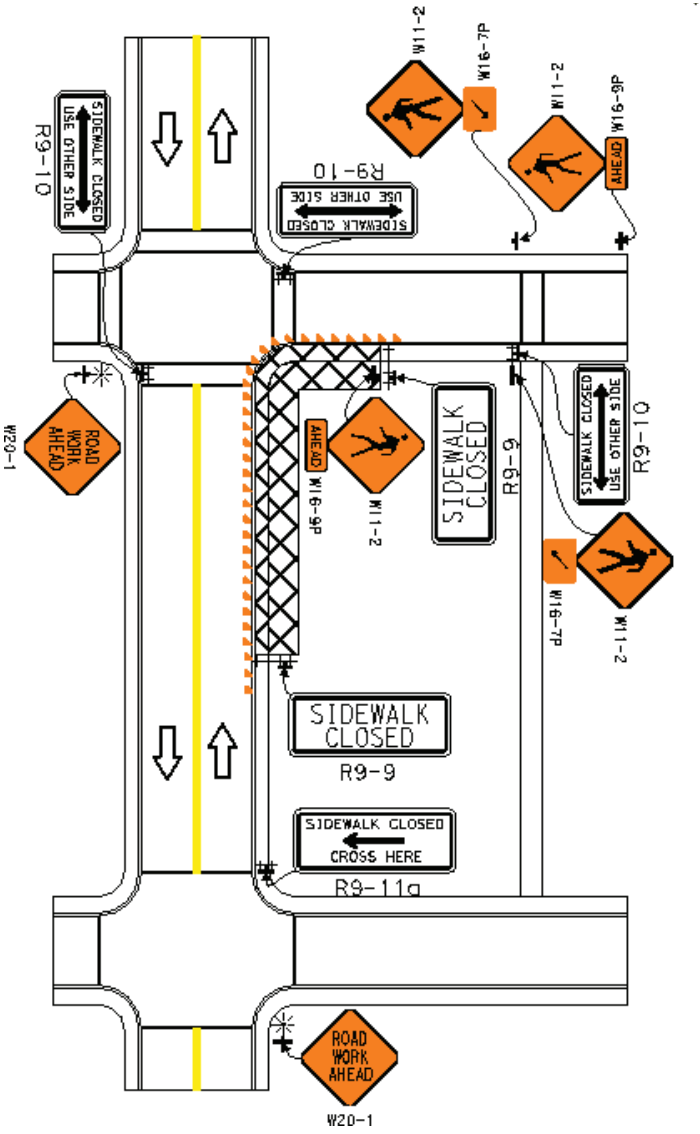


Figure 4—Crosswalk Closures and Pedestrian Detours

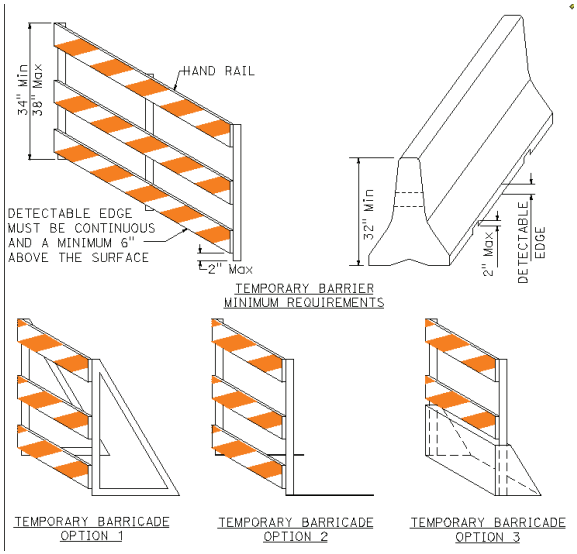


Pedestrian movements should be separated from both work site activity and vehicular traffic. When pedestrians are routed adjacent to live traffic, barrier protection must be provided to prevent vehicles from entering the pedestrian facility.

Tape, rope, or plastic chain strung between devices as controls for pedestrian movements must not be used. They are not readily detectable by persons with visual disabilities.

Where barricades channel pedestrians, continuous detectable bottom and top rails must be used, with no gaps between individual barricades for users of long canes. The bottom of the lowest rail must be no higher than 2 inches above the ground surface. The top of the top rail must be at least 32 inches above the ground. Refer to Part 6, Sections 6F.63 and 6F.68 of the MUTCD (**See Figure 5.**)

Figure 5—Channelizing Device Options



During the inspection process, check that all contractor-installed finished elements comply with dimensions and installation requirements.

Do not exceed any of the maximums shown in the requirements. They are absolute.

For permanent facilities, refer to MaineDOT Standard Detail 801(11-27)

Minimum ADA Requirements for Pedestrian Facilities, May 2021		
		Minimum Requirements for Pedestrian Facilities
		Sidewalks
Cross Slope		Max. 2% (1:50)
Clear Width		5 feet, excluding curb (standard) 4 feet, excluding curb (minumim) *3 feet, excluding curb may be acceptable if waived by the Cheif Engineer. Widths less than 5 feet require a 5 foot by 5 foot passing space every 200 feet.*
		Curb Ramps
Running Slope	A	Max. 8.33% (1:12)
Cross Slope	B	Max. 2% (1:50) *Ramp cross slope at street crossings without stop or signal control may match roadway profile.*
Clear Width	C	Min 4'-8' *Provide 5'8" clear width when feasible. Existing ramp width may remain 4 feet.*
Counter Slope	D	Max. 5% (1:20) *Adjacent surface must be flush with the ramp.*
Flared Sides	E	Max. 10% (1:10)
Turning Space	F	4 feet by 4 feet *Maximum slope of 2% in any direction. May include Detectable Warnings.*
Clear Space	G	4 feet by 4 feet *Located at the bottom of a ramp outside active trave lanes.*
Detectable Warnings	H	*Required at traffic-controlled intersections and mid-block crossings. Extend the full widthof curb opening except for a 4" maximum border.*

ADA Accessible Route Basics

The path must be stable, firm, and slip resistant.

- The surface should be smooth and continuously hard throughout the entire length of the temporary pedestrian facility. No abrupt changes should exist in grade or terrain that could cause tripping or be a barrier to wheelchair use.
- Surface discontinuities should not exceed ½ inch maximum. New surfaces must not have vertical surface discontinuities. Curb ramps, landings, and gutter areas must be flush.
- The cross slope must be no greater than 1:50 (2%.) A width of 60 inches (5 feet) should be maintained throughout the pedestrian route when feasible. (**See Figure 6.**)
- When it is not possible to maintain a width of 60 inches, a 60 x 60-inch passing space must be provided at least every 200 feet to allow individuals in wheelchairs to pass. (**See Figure 7.**)
- The pedestrian route must have a width of no less than 48 inches. Verify that no fixed objects such as cabinets or poles will reduce the route width. (**See Figure 8.**)

Figure 6—Preferred Pedestrian Route Width

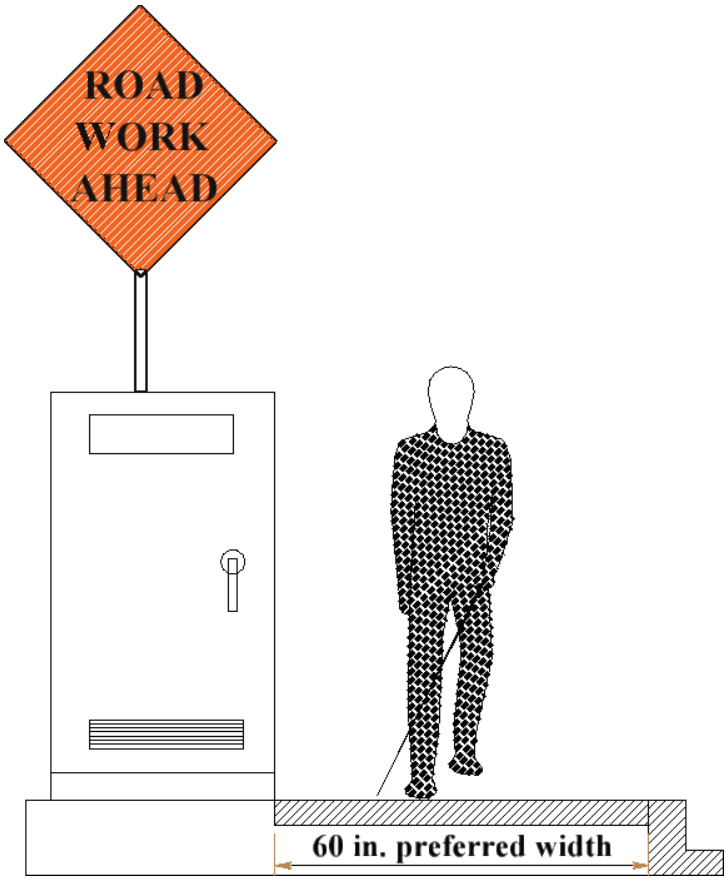


Figure 7—Passing Space

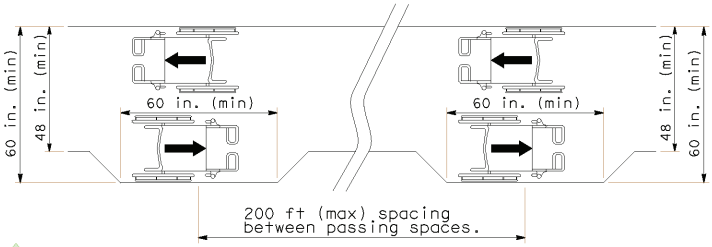
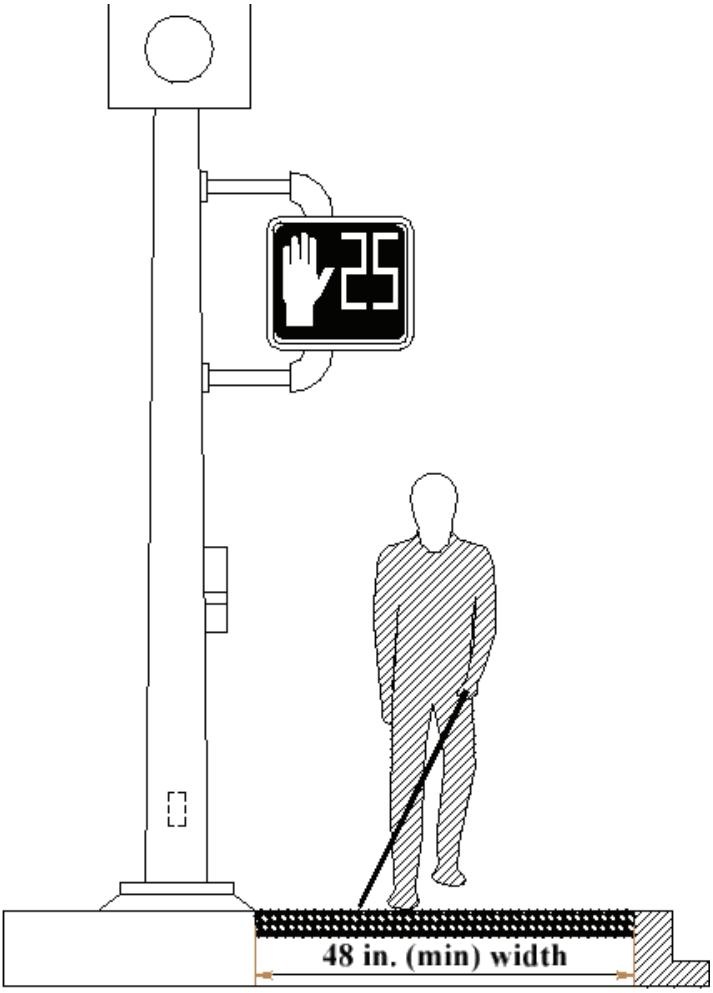


Figure 8—Minimum Pedestrian Route Width



- Signs and other devices mounted lower than 7 feet above the temporary pedestrian pathway should not project more than 4 inches into accessible pedestrian facilities. Refer to Part 6, Section 6D.02 of the MUTCD. (**See Figure 9.**)
- Objects must not protrude into the pedestrian Route. Check with the project resident for exceptions.
- Vertical clearance must be 80 inches minimum.
- If the path requires a 180-degree turn, the turning space must be at least 60 inches deep. (**See Figure 10.**)

Figure 9—Protruding Objects

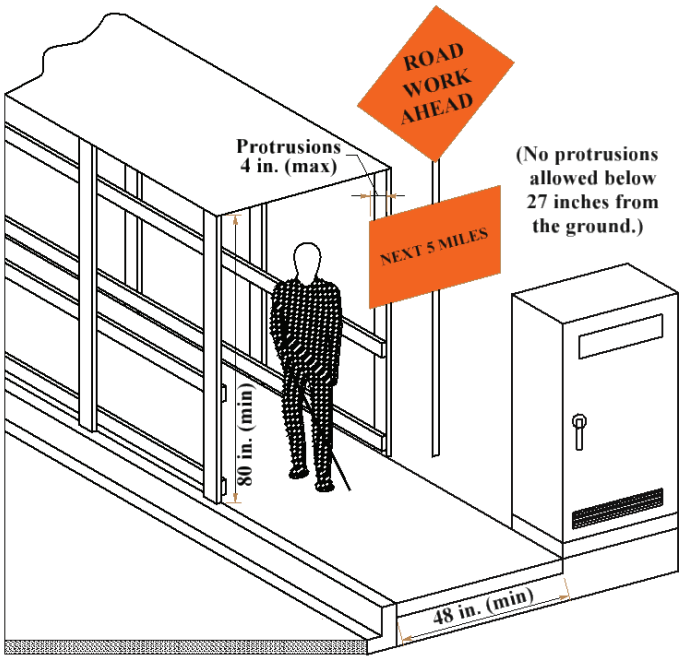
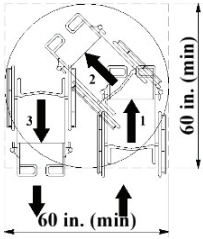
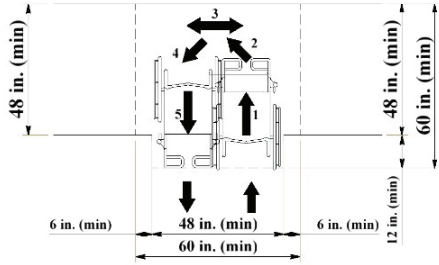


Figure 10—Turning Space (ADAAG)



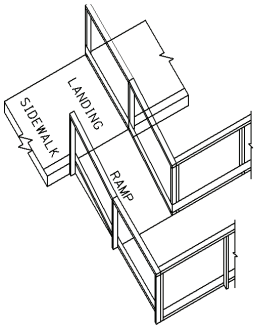
60-Inch-Diameter Space

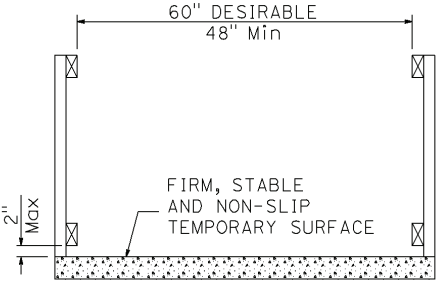


T-Shaped Space for 180-Degree Turns

- Pedestrians must be channelized when routed off existing pedestrian routes (**See Figure 11.**)
- Access to nearby temporary transit stops must be provided.

Figure 11—Channelized Temporary Pedestrian Route



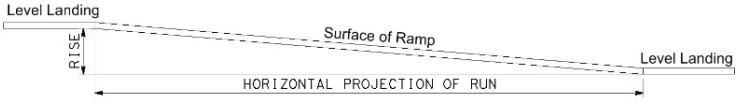


- Pedestrians may need temporary nighttime lighting. Refer to contract plans and specifications for requirements.

Ramps (not curb ramps)

- The longitudinal slope must be no greater than 1:12 (8.33 percent).
- The rise must be no greater than 30 inches.
- Each ramp must have level landings at the bottom and top. A landing must be as wide as the run leading to it and have a minimum length of 60 inches. (**See Figure 12.**)
- Ramps must have edge protection at least 2 inches high on each side.
- Ramps must have handrails 34 to 38 inches above the walkway surface if the rise is greater than 6 inches

Figure 12—Components of a Single Ramp and Sample Ramp Dimensions (ADAAG)

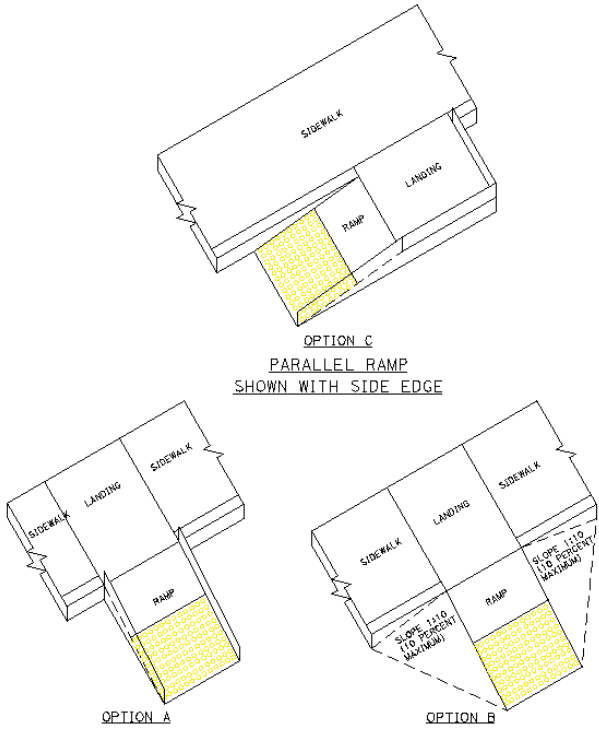


Slope	Maximum Rise (in.)	Maximum Horizontal Projection (ft)
1:12 to < 1:16	30	30
1:16 to < 1:20	30	40

Curb Ramps

- The longitudinal slope must be no greater than 1:12 (8.33 percent).
- When temporary ramps are used, curb ramps must have edge protection at least 2 inches high on each side of the curb ramp does not have flares, and the rise is greater than 6 inches (**See Figure 13.**)

Figure 13—Temporary Curb Ramp Options



- Curb ramps to be constructed on sites or facilities where space limitations prohibit the use of a 1:12 slope or less may have slopes and rises as follows:
- A slope between 1:10 and 1:12 is allowed for a maximum height of 6 inches.
- A slope between 1:8 and 1:10 is allowed for a maximum rise of 3 inches.
- A slope steeper than 1:8 is not allowed.

Pedestrian Push Buttons

- The pedestrian push button must have an unobstructed forward reach. For the exact height of the button, refer to the Standard Plans. (**See Figure 14.**)
- If the pedestrian push button requires a side reach, it should be unobstructed, and the bottom should not extend more than 10 inches from the base. (**See Figure 15.**)
- A pedestrian push button used to provide equivalent temporary traffic control information to pedestrians with visual disabilities should be equipped with a locator tone to notify them that special accommodation is available and help them locate the button.

Figure 14—High Forward Reach (ADAAG)

Objects that require a forward reach must be placed no lower than 15 inches and no higher than 48 inches.

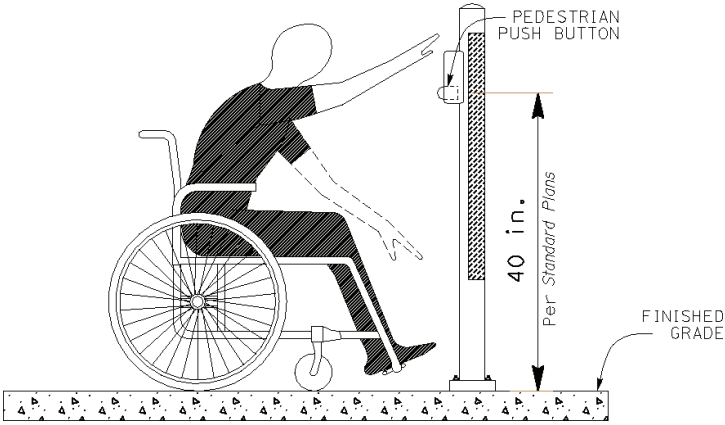
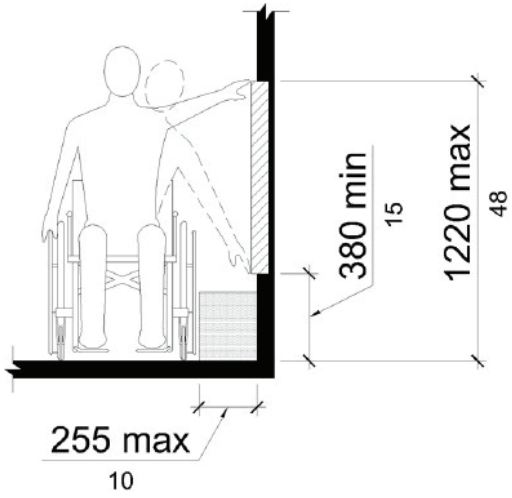


Figure 15—High Side Reach (PROWAG)



Audible Information Devices

A wide range of pedestrians might be affected by temporary traffic-control zones. All pedestrians need a clearly delineated and usable travel path.

A speech message by an audible information device is the preferred way of providing information equivalent to visual signage to notify pedestrians with visual impairments of sidewalk closures.

- Devices that provide speech messages in response to passive pedestrian actuation (motion sensor) are preferred.
- Other devices that continuously emit a message or a message in response to the use of a pedestrian push button are also acceptable.
- Signage information can also be transmitted to personal receivers, but currently, pedestrians with visual disabilities are not likely to carry or use such receivers in temporary traffic control zones.

Audible information devices may not be needed if detectable channelizing devices make an alternate route of travel evident to pedestrians with visual disabilities.

This handbook provides information for Designers, Project Managers, Inspectors, and Contractors for accommodating pedestrians of all abilities through and around work zones.