

# Chapter 4—Engineering

## 4.13 Construction Access



### Construction Access

There can be special events that will affect mobility for different users. For example, construction or repair of a building alongside a road may require one travel lane and the nearest sidewalk to be closed. This is especially true if the building is close to the road. In the same way that closing a roadway requires a plan for how to detour motor vehicle traffic, there should be a plan for how to maintain access for other users, particularly pedestrians.

Note that while this is good policy for a Complete Street, it is also required for ADA (Americans with Disabilities Act) compliance. This is also required by the Ohio MUTCD (Manual on Uniform Traffic Control Devices) in Part 6, Temporary Traffic Control. An important consideration of the Ohio MUTCD is protecting the safety of the construction/roadway workers.

### Motor Vehicles and Trucks

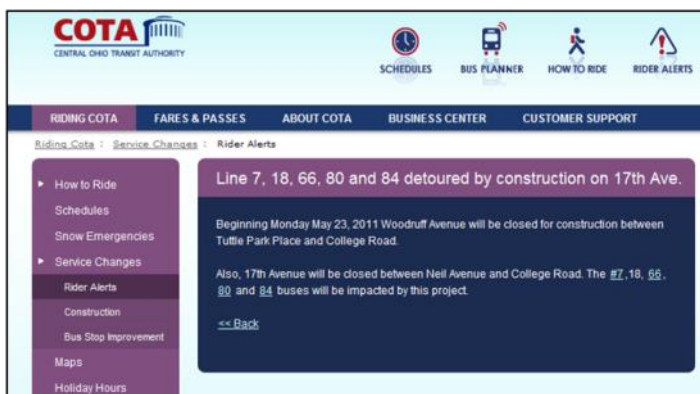
Motor vehicles and commercial vehicles are likely to be affected by construction. The following are some key considerations for the Temporary Traffic Control (TTC) zone (sections 6B.01 of the [Ohio MUTCD](#)).

- Drivers will reduce their speeds only if they clearly perceive a need to do so.
- Frequent and abrupt changes in geometrics such as lane narrowing, dropped lanes, or main roadway transitions that require rapid maneuvers, should be avoided.
- Road users should be encouraged to use alternative routes that do not include TTC zones.
- Roadway occupancy should be scheduled during off-peak hours, and if necessary, night work should be considered.
- Commercial vehicles and vehicles carrying hazardous materials might need to follow a different route from passenger vehicles because of bridge, weight, clearance, or geometric restrictions.
- For more information please consult the [Ohio MUTCD](#).

### Transit Vehicles and Riders

In some cases the roadway affected is used by transit vehicles. Detour routes should be chosen so that a transit vehicle will not be adversely affected.

- Fixed-route transit service providers (locally, COTA and DATA) should be contacted if a bus stop or bus route is on the affected roadway. It may be necessary to close a bus stop for the duration of the construction project. Detouring the bus may also be necessary.
- Furthermore, the transit agency would be able to determine the best detour based on available pedestrian facilities, such as sidewalks or crossings.



◀ COTA Rider alert for bus routes being detoured due to construction. (Source: [COTA website](#))

### Motorcycles and Scooters

Conditions that can be a minor annoyance to a 4-wheel vehicle may warrant extra caution for motorcyclists.

- Roadway conditions that are particularly difficult for motorcyclists to navigate include: bumps, dips, pavement ends, slippery when wet places, loose gravel, rough roads, and uneven lanes. Warning signs of these conditions, even if only caused by short-term construction, are helpful in providing advance notice to motorcyclists.
- Metal plates, usually labeled as “steel plates,” are often used to cover large holes created during construction or repair of a road. These can be hazardous to motorcyclists, especially if the metal plate is wet. Warning signs alerting motorcyclists can be very helpful.



▲ A sample of some of the roadway condition signs that are especially pertinent to motorcyclists. (Source: Figure 2C-4 of the [Federal MUTCD](#))

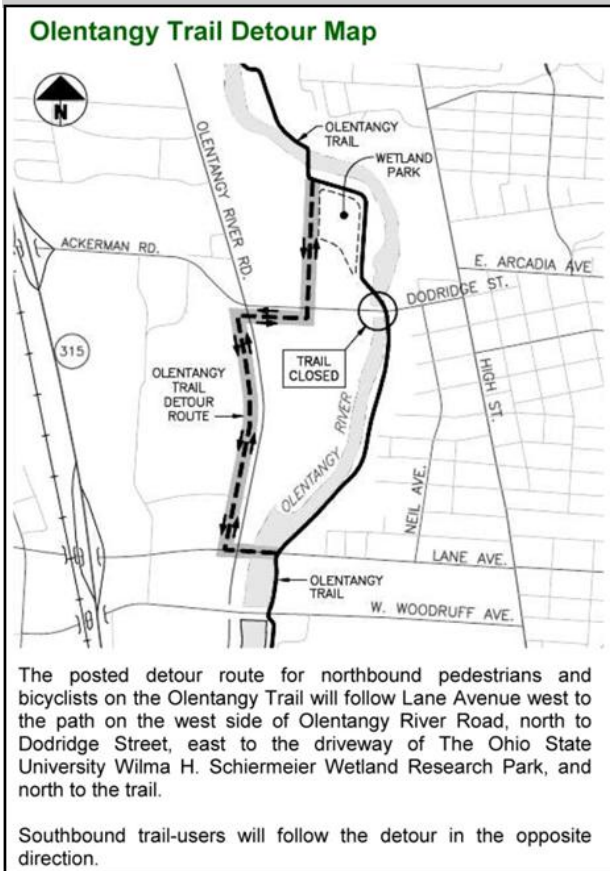
### Bicyclists

Bicyclists will be affected by Temporary Traffic Control (TTC) projects in both on-road situations and with multi-use paths. The following are some key considerations for the TTC zone (section 6B.01 of the [Ohio MUTCD](#)).

- Bicyclists who travel on-road, whether in a regular travel lane or in a bike lane, will need to be provided access. Many of the considerations for motor vehicles are the same for bicyclists.
- Bicyclists should be provided with access and reasonably safe passage through the TTC zone.
- Drivers will reduce their speeds only if they clearly perceive a need to do so.
- Frequent and abrupt changes in geometrics such as lane narrowing, dropped lanes, or main roadway transitions that require rapid maneuvers, should be avoided.
- Road users should be encouraged to use alternative routes that do not include TTC zones.
- Projects that affect multi-use paths should provide alternative access for the bicyclists and pedestrians who would use the path when it is open.
- For more information please consult the [Ohio MUTCD](#).

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◀ Olentangy MUP (multi-use path) detour map (Source: Westall, City of Columbus)

### Pedestrians

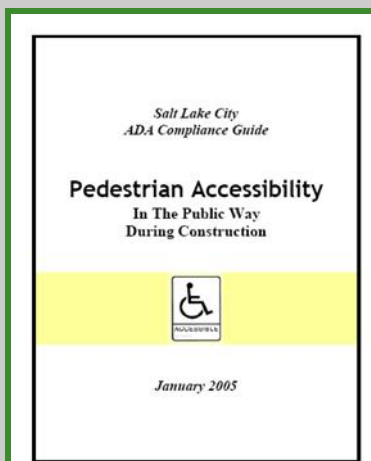
A wide range of pedestrians might be affected, including the young, elderly, and people with disabilities such as hearing, visual, or mobility. These pedestrians need a clearly delineated and usable travel path. (Source: sections 6D.01 and 6D.02 of the [Ohio MUTCD](#)). A desirable pedestrian path also reflects PAR (pedestrian accessible route) standards.

- A pedestrian route should not be severed and/or moved for non-construction activities, such as parking for vehicles and equipment.
- Advance notification of sidewalk closures shall be provided to the maintaining agency. Where pedestrians with visual disabilities normally use the closed sidewalk, a barrier that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
- The following three items should be considered when planning for pedestrians in Temporary Traffic Control zones:
  - Pedestrians should not be led into conflicts with work site vehicles, equipment, and operations.
  - Pedestrians should not be led into conflicts with vehicles moving through or around the work site.
  - 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(s) or footpath(s).
- It must be recognized that pedestrians are reluctant to retrace their steps to a prior intersection for a crossing or to add distance or out-of-the-way travel to a destination.

### Pedestrians, cont'd

- A canopied walkway may be used to protect pedestrians from falling debris, and to provide a covered passage for pedestrians.
- There should not be any abrupt changes in grade or terrain that could cause a tripping hazard or could be a barrier to wheelchair use. Barriers and channelizing devices should be detectable to pedestrians who have visual disabilities.
- Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)” (see Section 1A.1.1), and should not be used as a control for pedestrian movements.
- The width of the existing pedestrian facility should be provided for the temporary facility if practical. Traffic control devices and other construction materials and features should not intrude into the usable width of the sidewalk, temporary pathway, or other pedestrian facility.

► Cover of the Salt Lake City, Utah guide.  
(Source: Salt Lake City, Utah.)



► Cover of the CalTrans guide.  
(Source: CalTrans)



▲ A short checklist for pedestrian considerations has been created by the American Traffic Safety Services Association (ATSSA) and covers Planning, Design, and Construction/Maintenance/Utility. (Source: ATSSA)

- Some cities have created their own guides on pedestrian access and temporary pedestrian facilities. The [Salt Lake City, Utah Guide](#) includes many photos of different hazards. The [CalTrans handbook](#) includes diagrams of good and bad examples. Both guides are based on local laws, MUTCD, and ADA compliance regulations.

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