Pedestrian Safety

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Pedestrian Safety and Accessibility in Work Zones

Practical approaches to maintaining access, protection, and temporary crossings

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American Traffic Safety Services Association (ATSSA)

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Disclaimer

Today's examples illustrate practical approaches to pedestrian safety in work zones.

References to products or manufacturers are for illustration only.
ATSSA, FHWA, or ARTBA do not endorse specific products or companies.

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Why the entire pedestrian journey matters

- Construction can interrupt a familiar route.
- A sidewalk closure may introduce new hazards—or a new crossing.
- Every segment must work together.

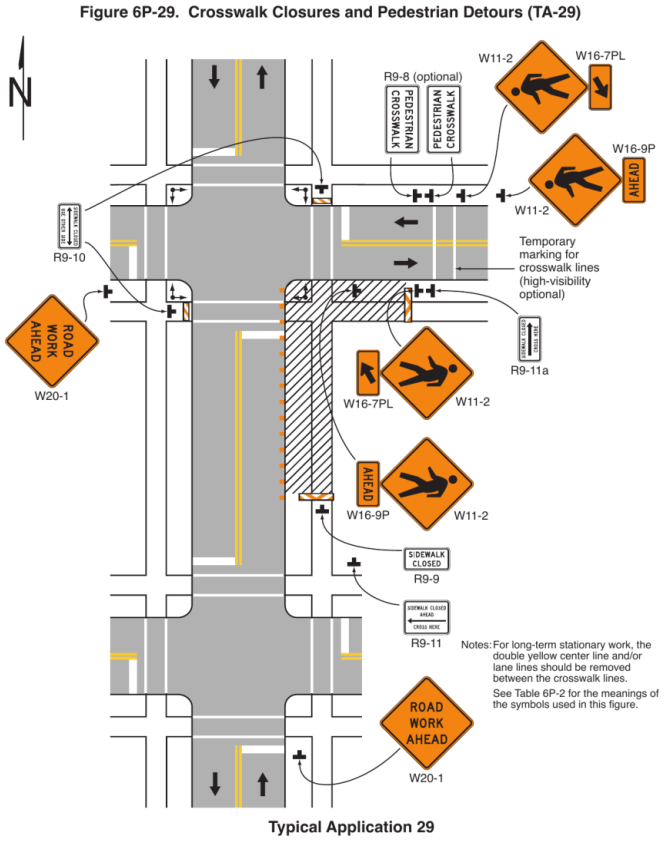


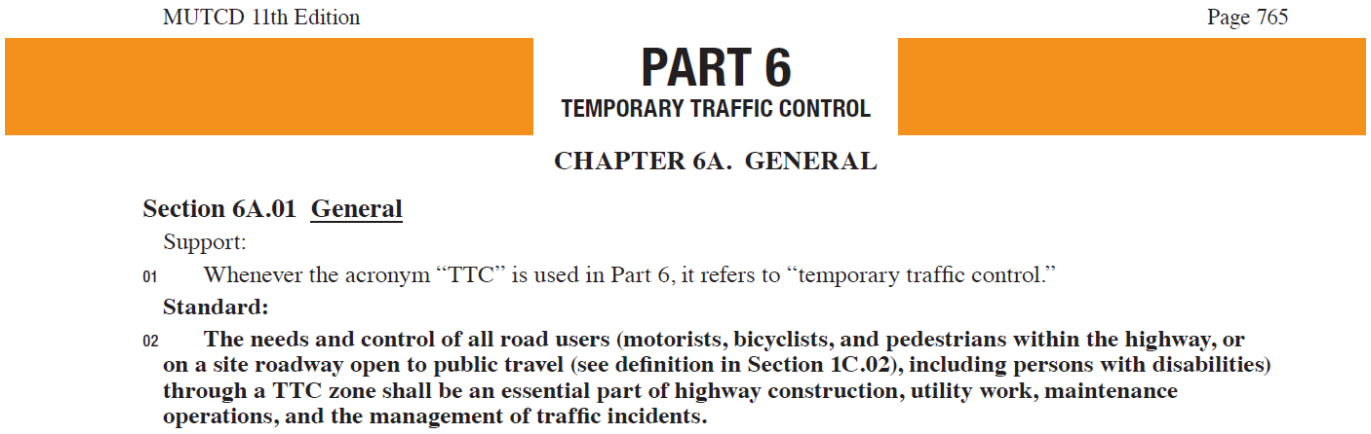
Figure 6P-29. Crosswalk Closures and Pedestrian Detours (TA-29)

Typical Application 29

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The framework: access is not optional

- MUTCD Part 6: adequate pedestrian access and walkways when work affects pedestrian movement.
- Provide a convenient, accessible path.
- Avoid conflicts with traffic, equipment and operations.



MUTCD 11th Edition Page 765

PART 6
TEMPORARY TRAFFIC CONTROL

CHAPTER 6A. GENERAL

Section 6A.01 General

Support:

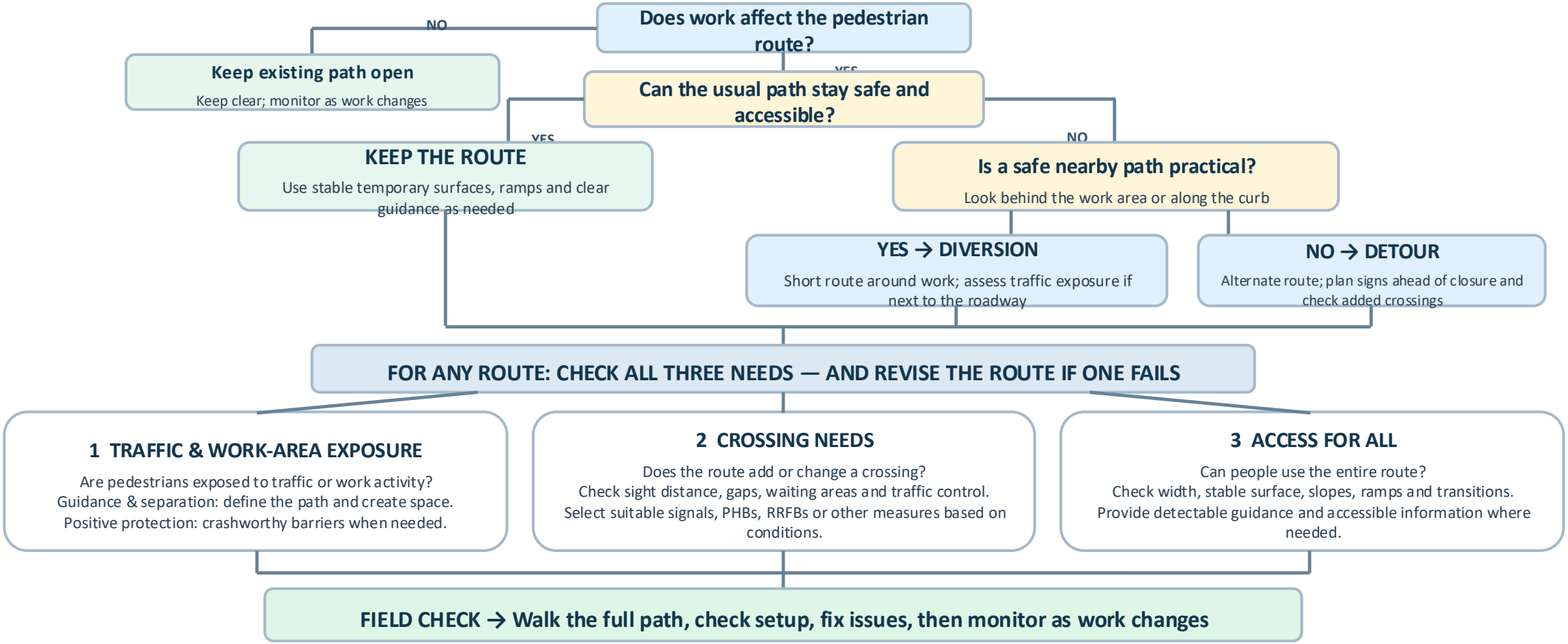
01 Whenever the acronym "TTC" is used in Part 6, it refers to "temporary traffic control."

Standard:

02 **The needs and control of all road users (motorists, bicyclists, and pedestrians within the highway, or on a site roadway open to public travel (see definition in Section 1C.02), including persons with disabilities) through a TTC zone shall be an essential part of highway construction, utility work, maintenance operations, and the management of traffic incidents.**

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CHOOSING A PEDESTRIAN SAFETY SOLUTION — ONE DECISION PATH



Conceptual planning guide only. Apply MUTCD, accessibility rules, agency standards, and site-specific engineering judgment.

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First choice: preserve the existing route

- Maintain the sidewalk alignment when feasible.
- Temporary raised overlay surfaces can bridge short-term work areas.
- Check width, slopes, surface stability and transitions.



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Pedestrian Diversions vs. Detours

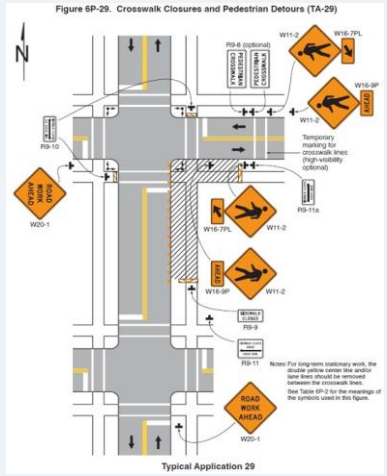
DIVERSION

- Keeps people near their usual route.
- Routes around work; check traffic exposure and separation.



DETOUR

- Uses a different path, often farther away.
- May use other sidewalks or crossings; plan signs and crossing support.



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Making temporary paths usable

- Access mats provide a temporary walking surface.
- Modular ramps connect changes in level.
- A route is only accessible when its transitions work.

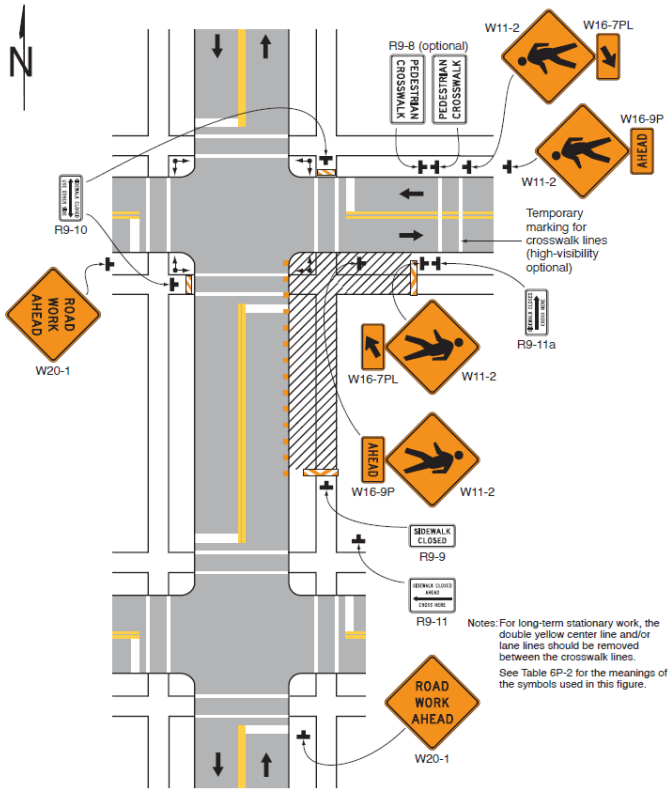


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Advance Warning and Pedestrian Guidance

- Give notice before the sidewalk closes.
- Show the full route at key decision points.
- Guide people to safe, accessible crossings.

Figure 6P-29. Crosswalk Closures and Pedestrian Detours (TA-29)



Typical Application 29

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Information must be accessible, too

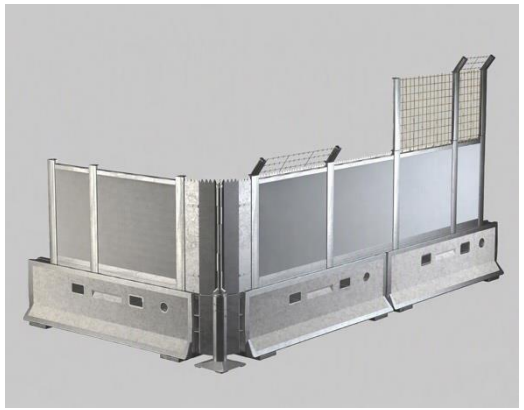
- Temporary audible information devices can communicate changed routes.
- Guidance should be available at decision points.
- A clear path and understandable information go together.



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Choosing separation and protection

- Positive protection is designed to resist vehicle intrusion.
- Demarcation guides pedestrians along the intended route.
- A device that looks substantial is not necessarily crashworthy.





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A detour may create a new crossing

- Check sight distance, traffic gaps and crossing length.
- Provide accessible approaches and waiting space.
- Evaluate visibility, markings and traffic control.

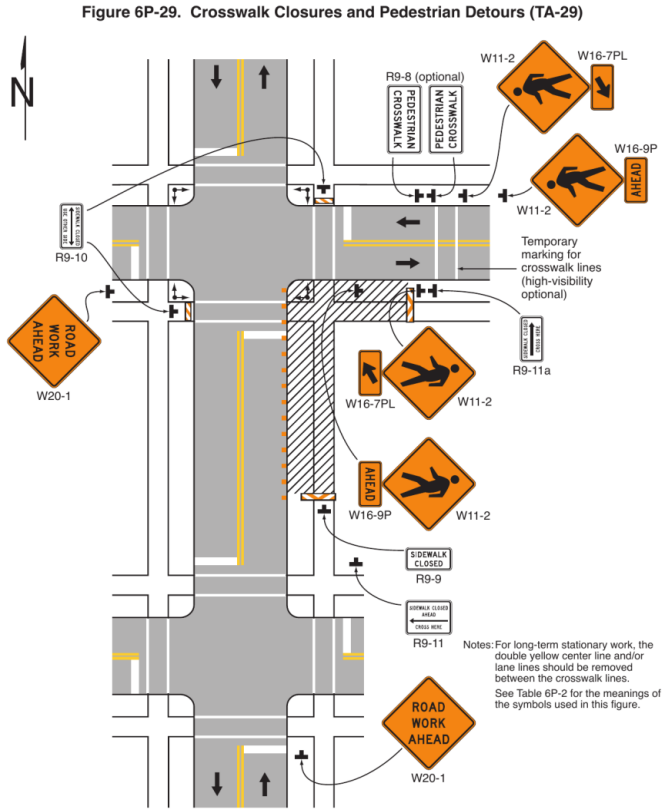


Figure 6P-29. Crosswalk Closures and Pedestrian Detours (TA-29)

Typical Application 29

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Pedestrian crossing solutions

Rectangular Rapid-Flashing Beacon (RRFB)

Function

Flashing yellow warnings alert drivers at uncontrolled marked crossings.

Application

Drivers must yield.
No red stop signal.

Pedestrian Hybrid Beacon (PHB)

Function

Pedestrian activation triggers red stop indications to control traffic.

Application

For crossings that warrant stronger traffic control.

Portable Traffic Control Signal

Function

Provides temporary traffic signal control in a portable format.

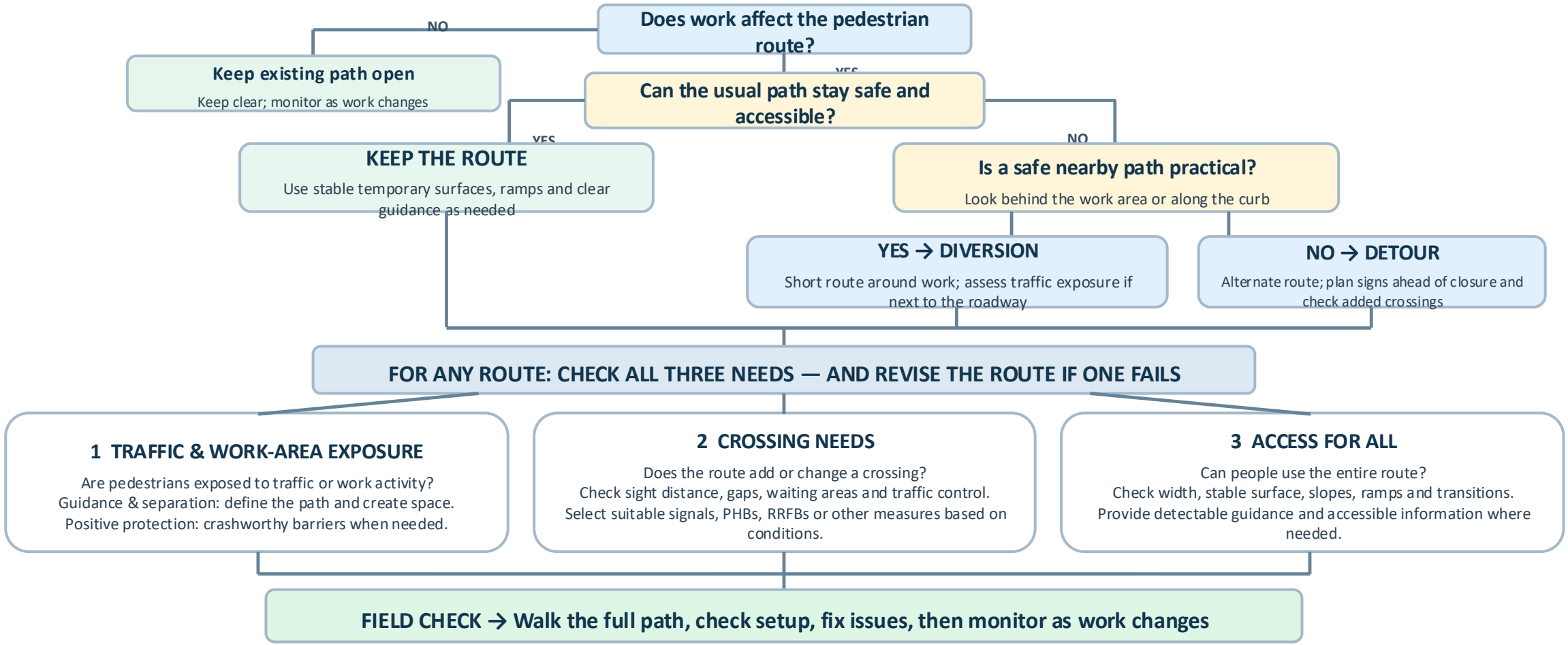
Application

For construction zones where temporary signal control is warranted.

Selection depends on traffic conditions, crossing needs, and accessibility.

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PUTTING IT ALL TOGETHER — ONE DECISION PATH



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ATSSA resource spotlight: A safe pedestrian path



Everyone is a Pedestrian:
For A Safe Path Through Work Zones
"Don't Miss Your Cues!"

Header Images: Getty

Most pedestrians walk familiar routes routinely – such as from a transit stop to work, or from work to a favorite lunch spot. But this familiarity can cause complacency that leads to problems for pedestrians when they find their path impacted by a construction or maintenance work zone.

According to data from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS), pedestrian fatalities in work zones decreased from 178 in 2023 to 156 in 2024.* The data typically indicate that over three-fourths of all "on foot" fatalities are pedestrians. Distracted behaviors such as talking on the phone, texting, and using in-ear devices can cause pedestrians to lose sight of the surroundings.

Work zones can be dangerous for pedestrians due to the potential for pathway obstructions, protruding objects, tripping hazards, modified street crossings, vehicular traffic, and construction equipment. Pedestrians share the responsibility for their personal safety on the road, especially in work zones. It is important to know that work zone signs, temporary route guidance, and accessible devices are the best cues to safe travel for every pedestrian!

Image: ATSSA

It is very important for pedestrians to be alert and stay on the delineated path through the work zone! Work zone traffic control devices are installed to provide positive guidance to pedestrians and separate them from motorists and construction activity. Barriers, barricades, distinctive orange signs, white signs, drums, cones, and fluorescent yellow-green signs define the SAFE way to travel through the area, both for drivers as well as pedestrians!

The Pedestrian's First Safety Rule in Work Zones

It's always safest to simply avoid the construction area. If not practical to avoid the area completely, the pedestrian must be especially attentive and careful when using temporary routes that divert or detour pedestrians around the work zone.

Work zones can be particularly hazardous to pedestrians with visual or mobility impairments. Public entities are required to maintain the accessibility features present prior to construction. Where exposed to adjacent construction, traffic, or other hazards, you may encounter a pedestrian barricade or channelization device. These devices are designed to be continuous, stable, and non-flexible. It's very important to obey ALL work zone signs, always follow designated temporary pathways, and never enter a work space.

Image: ATSSA

*Source: National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS)

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August 2026



Pedestrians should check project information frequently to prepare for travel around the work zone.

Work Zone Safety Tips for Every Pedestrian to Follow/Comply With/Adhere To/Observe

- **Be alert and attentive.** Construction vehicles often move suddenly and quickly. Even though work zone personnel and traffic control devices may be in place to guide the pedestrian away from hazards, everyone in a work zone must still be alert to the possible hazards posed by moving equipment and unexpected conditions.
- **Watch for approaching drivers.** Drivers may not see pedestrians, especially if they are focused on traffic conditions and safely navigating the work zone. Observe oncoming traffic closely to ensure conditions are safe before crossing live traffic lanes, with particular focus on vehicular traffic at temporary crosswalks.
- **Review project information and understand project communications ahead of time.** Owners and contractors regularly communicate project information through a variety of sources, including press releases, social media platforms, portable changeable message signs, and project websites. Pedestrians should check project information frequently to best prepare for safe travel in and around the work zone.
- **Be especially aware at night.** Never assume a motorist sees you at night, as their visibility is reduced. Pedestrians must be even more attentive at night to ensure their path through the work zone is safe and hazard free. Pedestrians should wear visible clothing (lighter in color) when walking at night.
- **Watch where you're going!** Construction work may be fascinating to watch, but remember that your first responsibility is to get through the work zone as safely as possible.

Image: ATSSA

Safety Cues to Watch For in Work Zones

Image: MUTCD

- **White Work Zone Signs with Black Lettering** – Regulatory signs indicate requirements that users must follow in the work zone, such as a sidewalk is closed and a detour must be taken. These signs represent established laws or regulations where violations can result in a citation.
- **Orange Work Zone Signs with Black Lettering** – Communicate the situation to both drivers and pedestrians, provide route guidance, and may provide a warning for potential hazards.
- **Traffic Control Devices** – To provide clear delineation of the pedestrian path through the work zone, some projects include longitudinal channelizing devices such as plastic water-filled barriers, fencing with wooden or metal frames, and/or barricades. Some use temporary traffic barriers to channelize road users while also protecting the work space.

Pedestrians who ignore work zone traffic safety cues are at risk of getting injured or killed by construction activity or vehicular traffic that may not be expecting the presence of pedestrians. Remember, the key to safety is to be alert, and **DON'T MISS YOUR SAFETY CUES!**

This material is based upon work supported by the Federal Highway Administration under grant agreements DTFH61-16-RA-00018 and 693JJ32450006. The material was prepared by ATSSA. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the Federal Highway Administration. This publication does not constitute a national standard, specification or regulation.

U.S. Department of Transportation
Federal Highway Administration

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"Don't Miss Your Cues!"

- Follow designated temporary routes.
- Watch for signs, devices and construction activity.
- Keep routes accessible and detectable.

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One final thought

Where else could these solutions improve pedestrian safety?

Innovation can mean finding new applications for solutions we already have.

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Thank you | Questions?

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Enhancing Pedestrian Safety and Accessibility in Work Zones

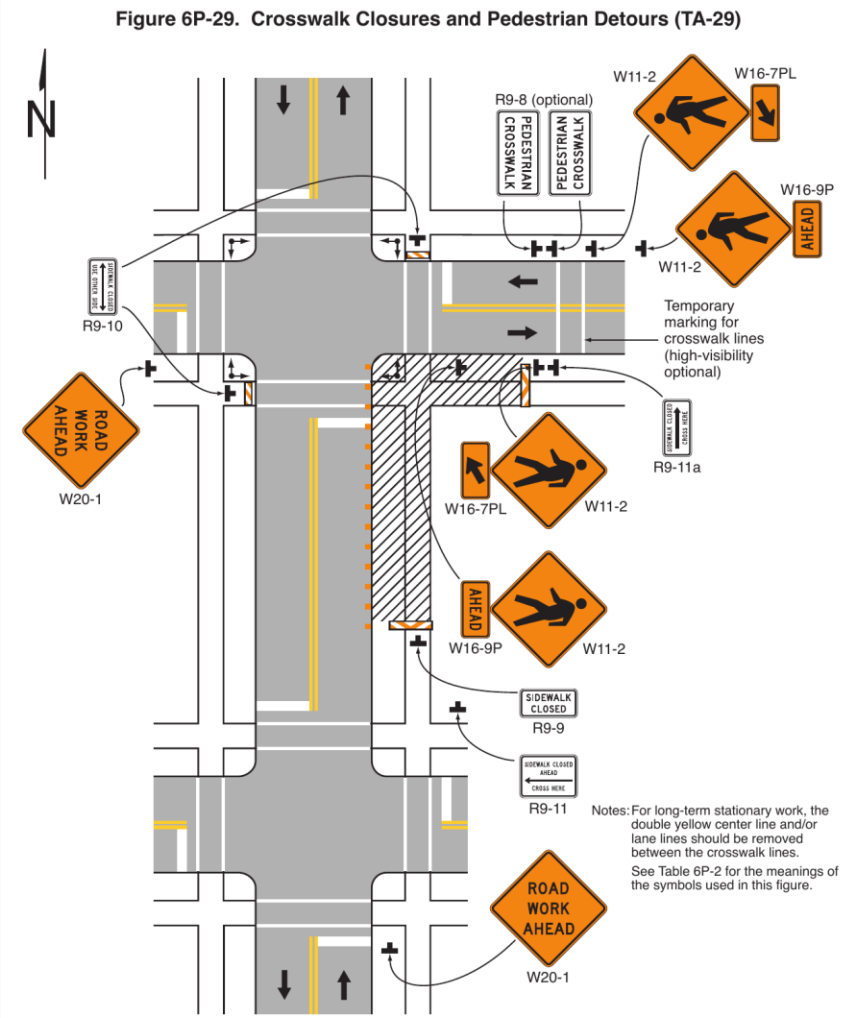
A practical look at maintaining access, providing protection, and managing temporary crossings.

Why the entire pedestrian journey matters

Construction can interrupt a familiar route.

A sidewalk closure may introduce new hazards—or a new crossing.

Every segment must work together.

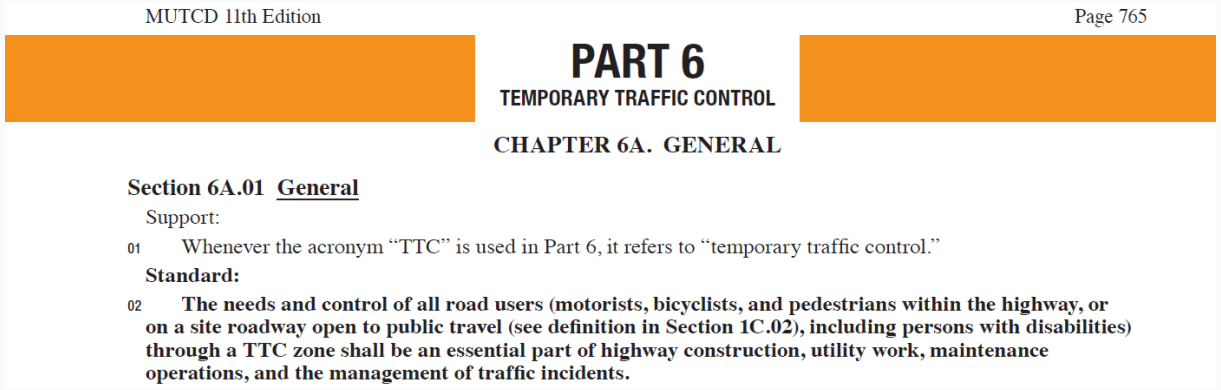


The framework: access is not optional

MUTCD Part 6: adequate pedestrian access and walkways when work affects pedestrian movement.

Provide a convenient, accessible path.

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PART 6
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First choice: preserve the existing route

Maintain the sidewalk alignment when feasible.

Temporary raised overlay surfaces can bridge short-term work areas.

Check width, slopes, surface stability and transitions.



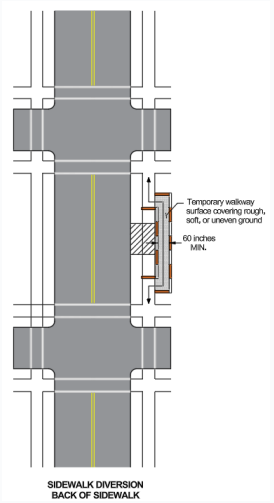
Next choice: a nearby diversion

Keep the alternative close and direct.

Diversion behind the sidewalk or along the curb can preserve access.

Channelizing devices make the route detectable.





Making temporary paths usable

Access mats provide a temporary walking surface.

Modular ramps connect changes in level.

A route is only accessible when its transitions work.



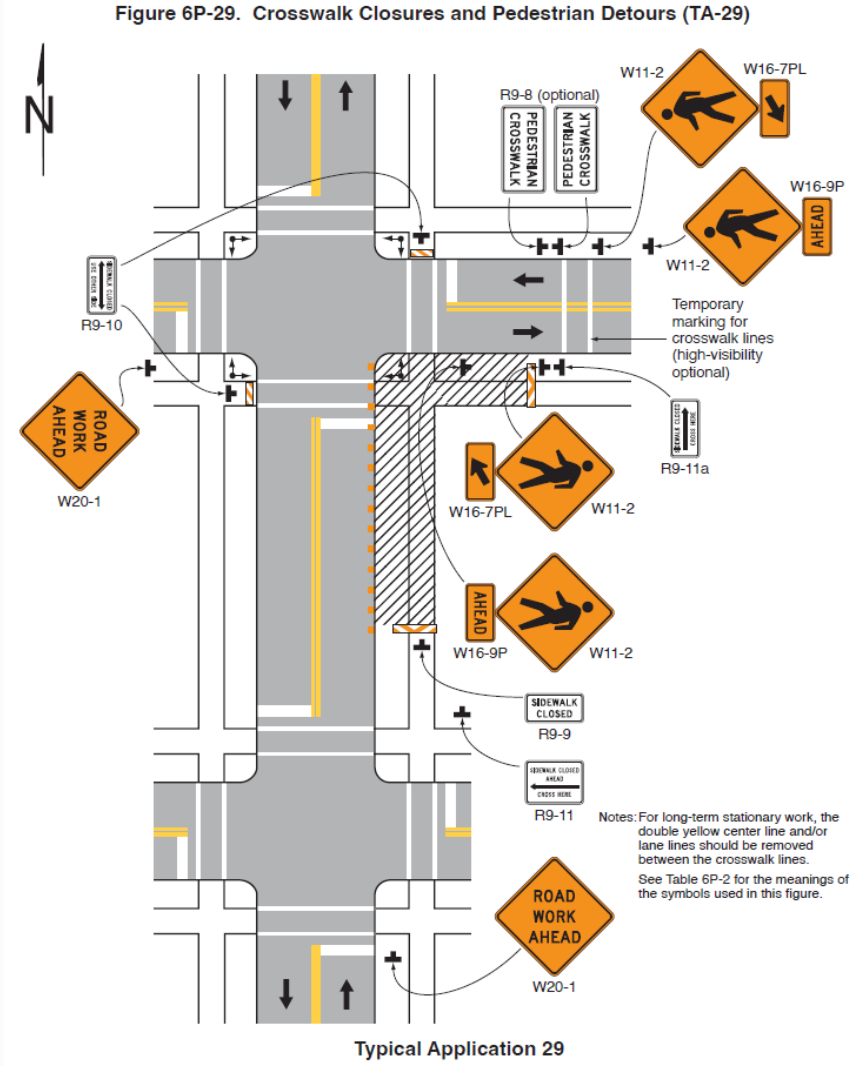


When a detour becomes necessary

Use a longer detour when keeping or diverting the original route is impractical.

Show directions before pedestrians reach the closure.

Avoid creating unnecessary crossings.



Information must be accessible, too

Temporary audible information devices can communicate changed routes.

Guidance should be available at decision points.

A clear path and understandable information go together.



Defining protection vs. demarcation

Positive protection is designed to resist vehicle intrusion.

Demarcation guides pedestrians along the intended route.

A device that looks substantial is not necessarily crashworthy.



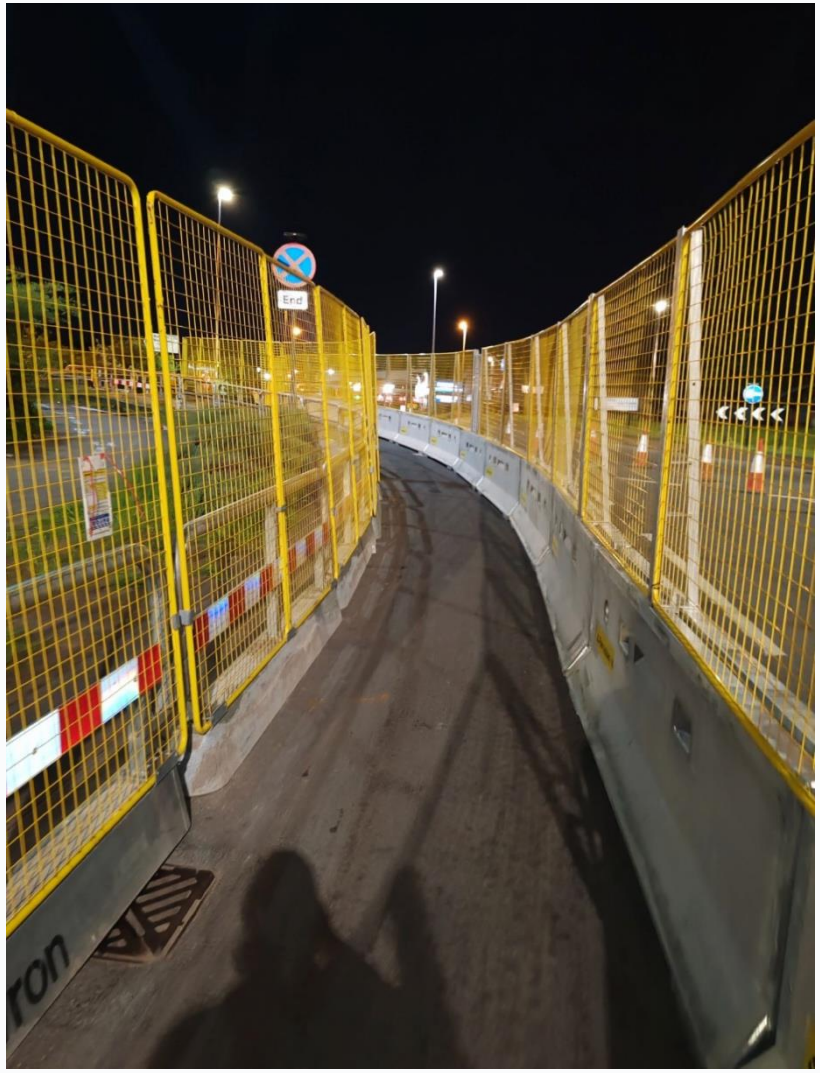


Choose the device for the actual risk

Traffic exposure, speed, proximity and work hazards matter.

Consider a temporary traffic barrier when pedestrian routes enter a roadway, especially above 30 mph.

Select protection based on site conditions and tested performance.



Installation can undermine protection

Improper placement can create narrow pinch points.

Channelizers should not be mistaken for impact barriers.

Avoid improvised layouts that interrupt the pedestrian route.



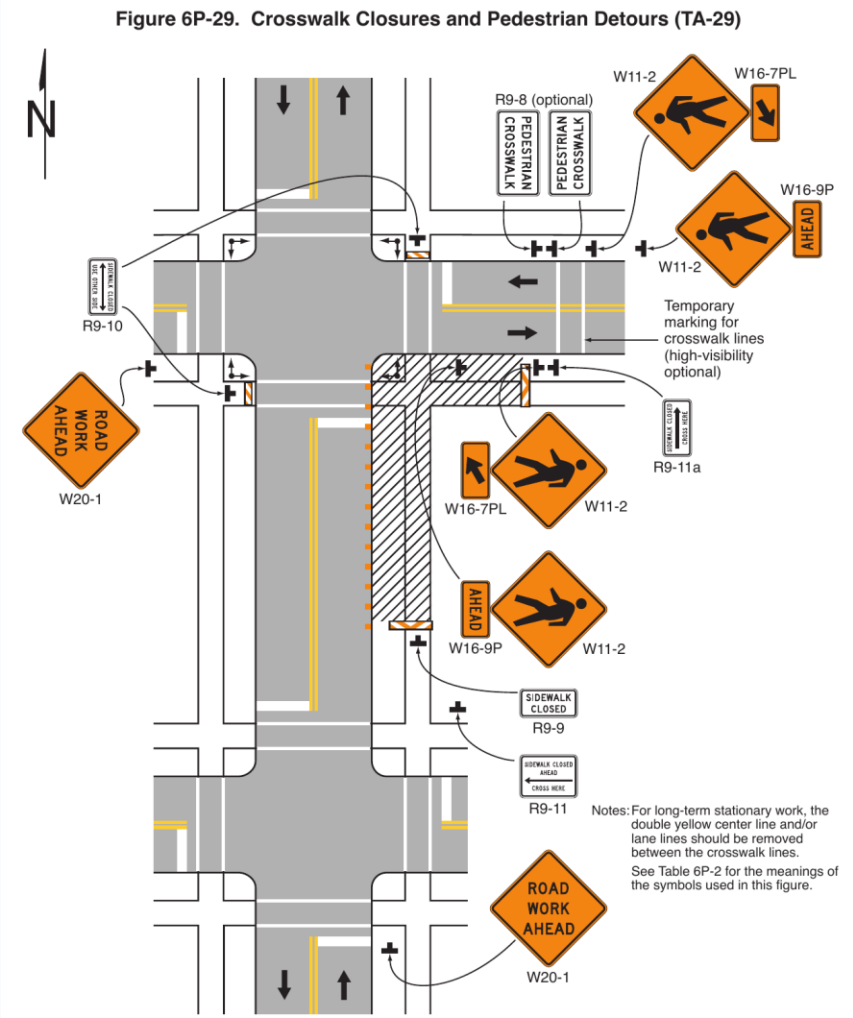


A detour may create a new crossing

Check sight distance, traffic gaps and crossing length.

Provide accessible approaches and waiting space.

Evaluate visibility, markings and traffic control.



Three crossing options—different functions

Conventional signals: control conflicting vehicle movements with pedestrian indications.

PHB / HAWK: provide an assigned crossing opportunity with red stop control.

RRFB: enhance warning at an uncontrolled marked crossing; no WALK phase.





What the treatments look like in practice

Portable signals can support relocated signalized crossings.

PHBs may address inadequate crossing opportunities.

RRFBs emphasize a marked uncontrolled crossing.



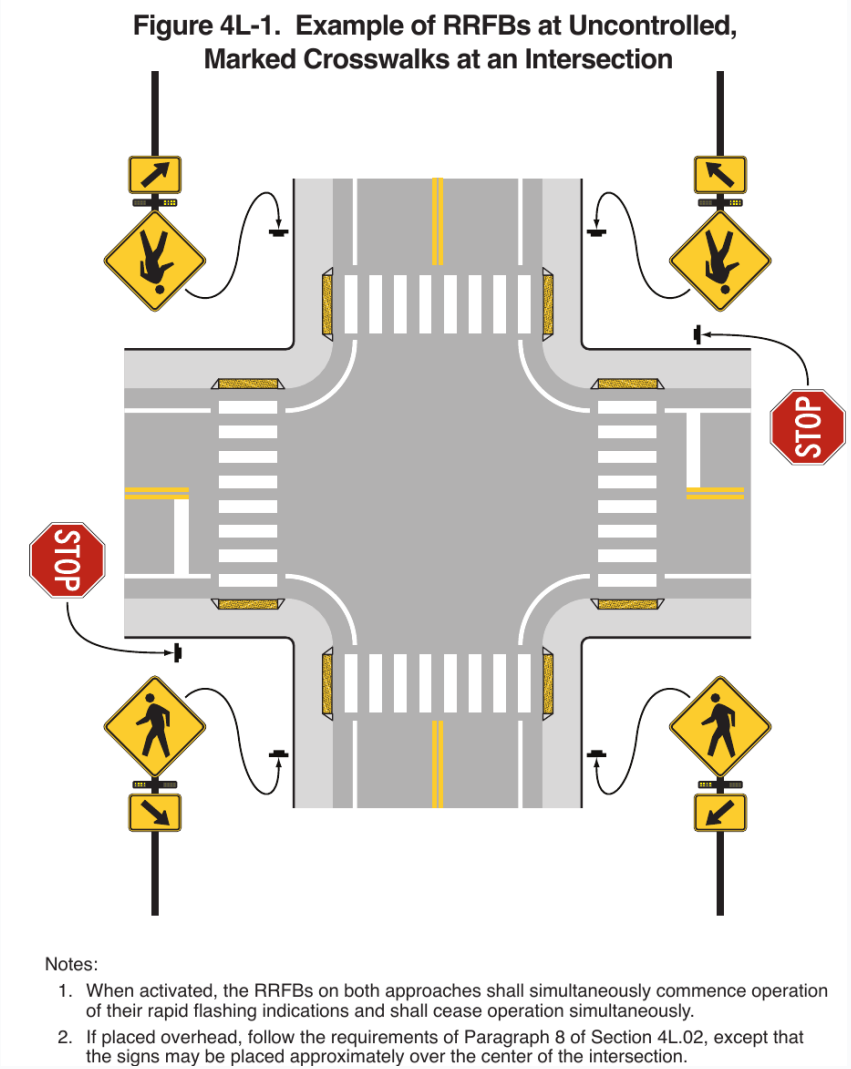


The crossing must remain accessible

Connect the crosswalk to a continuous, detectable pedestrian route.

Provide reachable controls and accessible crossing information as applicable.

Do not solve the crossing while neglecting the approach.



Takeaways: design the whole journey

1 Maintain a direct, usable route.

2 Match separation and protection to risk.

3 Select crossing control for site conditions.

4 Check the complete path in the field.

ATSSA resource spotlight: A safe pedestrian path

Everyone Is a Pedestrian: For a Safe Path Through Work Zones
“Don’t Miss Your Cues!”

- Follow designated temporary pedestrian routes.
- Watch for signs, channelizing devices and construction activity.
- Ensure routes remain accessible and detectable.

Available through the Work Zone Safety Information Clearinghouse.

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- Explore roadway safety products and new technologies.
- Connect with agencies, contractors and industry leaders.
- Visit the New Products Rollout (NPRO) Showcase Tour.

Registration and details: Expo.ATSSA.com

Resources & discussion

FHWA MUTCD, 11th Edition (Part 6; Chapters 4D, 4J, 4L)
FHWA Proven Safety Countermeasures: PHBs and RRFBs
U.S. Access Board accessibility guidance
ATSSA New Products Rollout (NPRO): Expo.ATSSA.com

Audience Q&A follows (separate from the 30-minute talk).