



ADA in the Work Zone

ASCE

Montgomery, AL

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DECEMBER 13, 2016

Today

- ▶ What's the problem?
- ▶ What do pedestrians need?
- ▶ What are the rules?
- ▶ Elements of an Accessible Work Zone
- ▶ Project tips

PSS – CTS

- ▶ PSS – Cleveland, Ohio
 - ▶ Gary Paul – Roadway Safety Consultant
 - ▶ ADA Specialist
 - ▶ NCUTCD
 - ▶ Texas Transportation Board
- ▶ Cox Transportation Safety
 - ▶ Tim Cox - Consultant
 - ▶ NCUTCD – National Committee
 - ▶ TRB – Transportation Research Board
 - ▶ ARTBA – American Road & Transportation Builders Association
 - ▶ ATSSA – American Traffic Safety Services Association
 - ▶ IRF – International Road Federation



Where do I go?



This is Richard.





Pedestrians need – “Visible” Pathways

- ▶ Cane detectable
- ▶ Hand-trailing
- ▶ Signage



How we learned

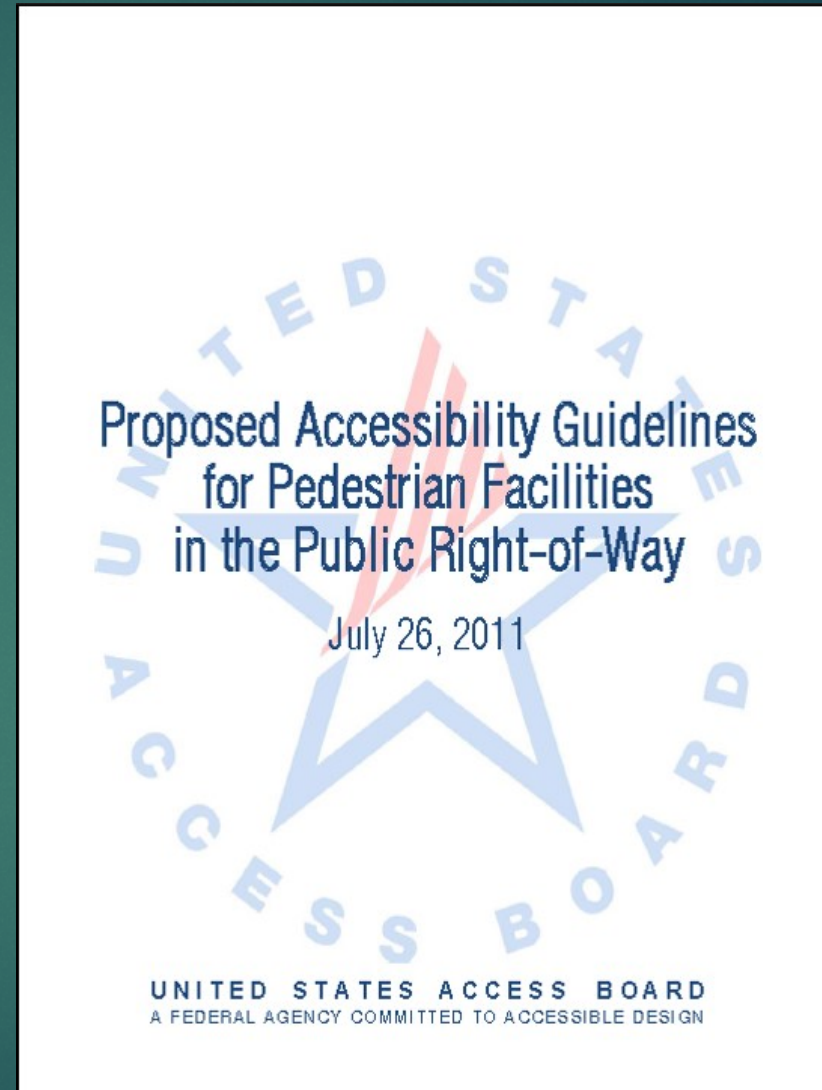
- ▶ Workshops with pedestrians with disabilities
 - ▶ Sponsors: FHWA, ATSSA, Access Board
 - ▶ 3 workshops
 - ▶ Washington DC – Sept 2004
 - ▶ Baltimore MD – June 2006
 - ▶ Sacramento CA – June 2010



What are the rules?

PROWAG - Public Rights of Way Accessibility Guidelines

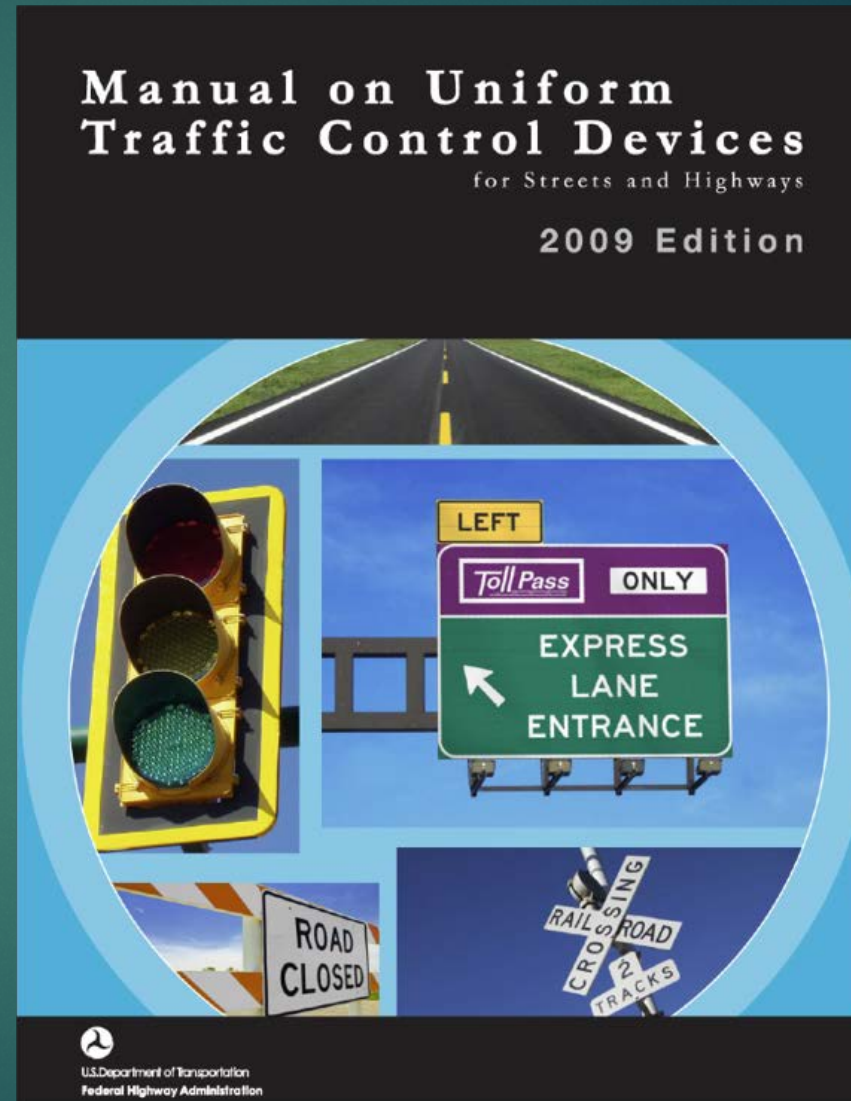
- ▶ Americans with Disabilities Act – 1990
 - ▶ Accessibility = civil right
 - ▶ EEOC – non-discrimination in employment
- ▶ PROWAG - from steps of buildings outwards
 - ▶ Defines accessibility not how to achieve
- ▶ Access Board
 - ▶ Defines accessibility
 - ▶ Assist in training and implementation
- ▶ Enforcement
 - ▶ US DOJ – EEOC, Accessibility
 - ▶ US DOT – FHWA for PROWAG



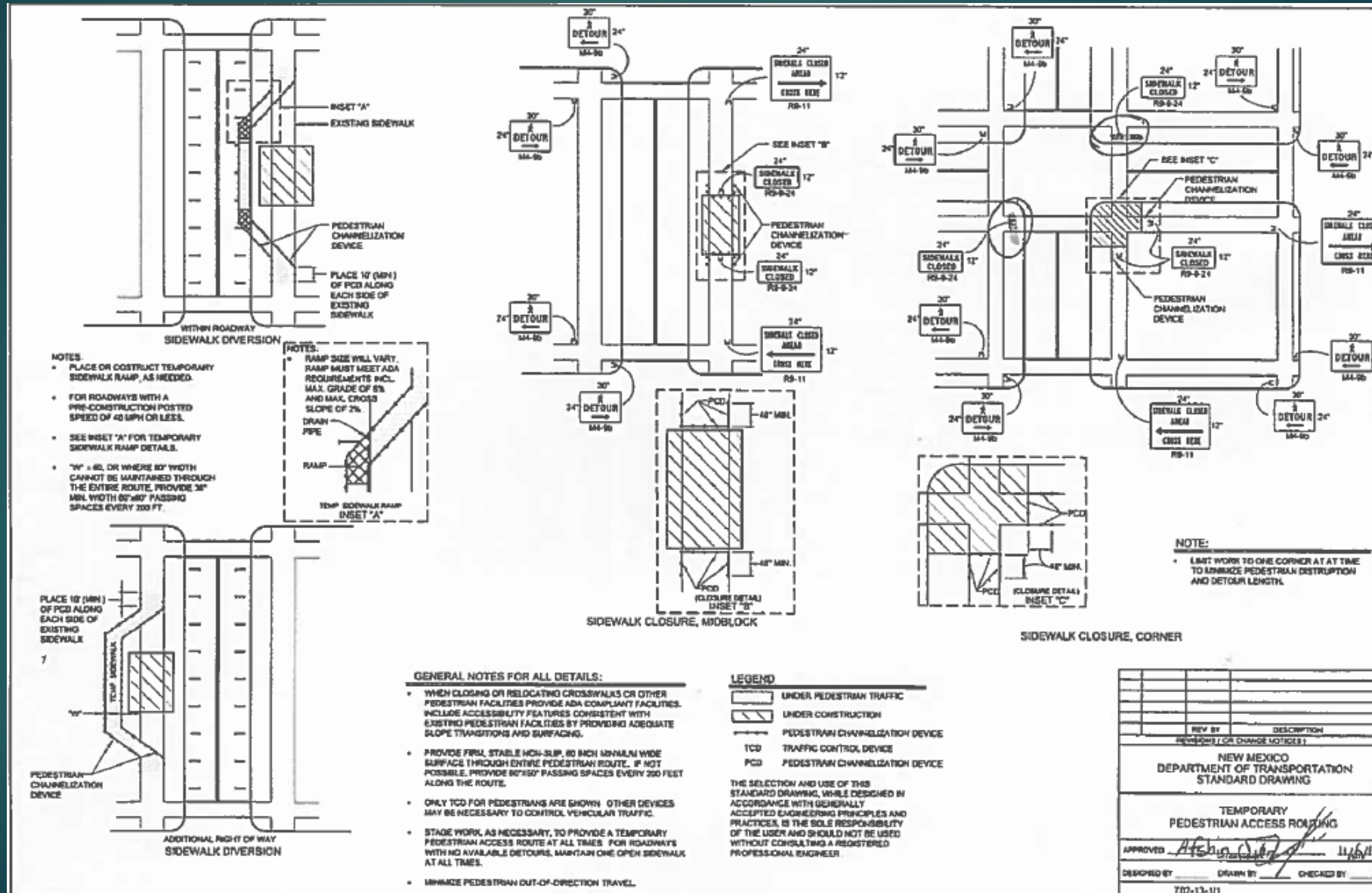
Rules, continued

MUTCD – Manual on Uniform Traffic Control Devices

- ▶ It's the law
 - ▶ City of Sacramento
 - ▶ City of Arlington
- ▶ National Committee advises on content, changes
- ▶ Part 6 – Temporary Traffic Control



New Mexico DOT - TPAR Drawing



Elements of an Accessible Work Zone - Pathway

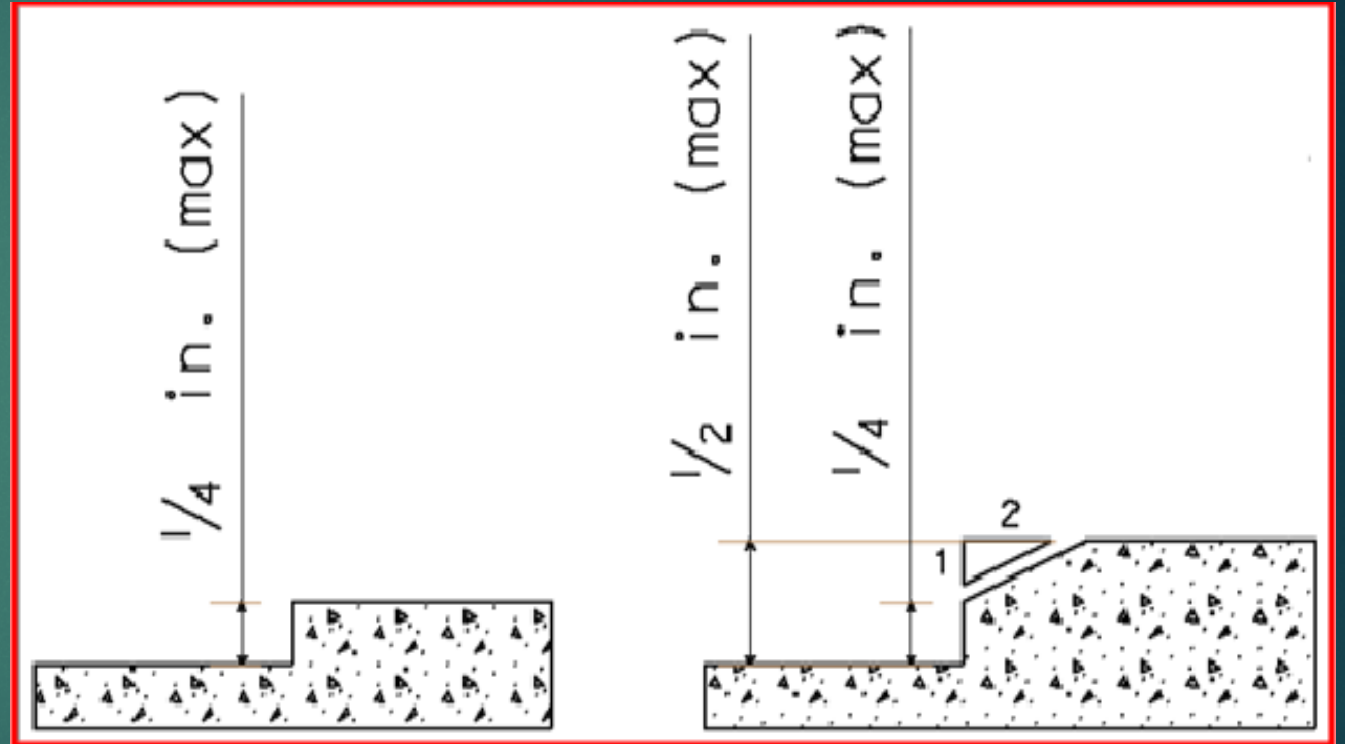
- ▶ Width – 60"
 - ▶ 48" permitted with 60" by 60" bump out every 200'
- ▶ Composition
 - ▶ Firm, Stable, Slip-resistant - gravel, untreated wood
- ▶ Slope
 - ▶ Running slope – up to 5%
 - ▶ Cross slope – 2% max



Elements cont. – Surface

Discontinuities

- ▶ Up to $\frac{1}{4}$ " – no problem
- ▶ $\frac{1}{4}$ " to $\frac{1}{2}$ " – taper
- ▶ More than $\frac{1}{2}$ " – remove



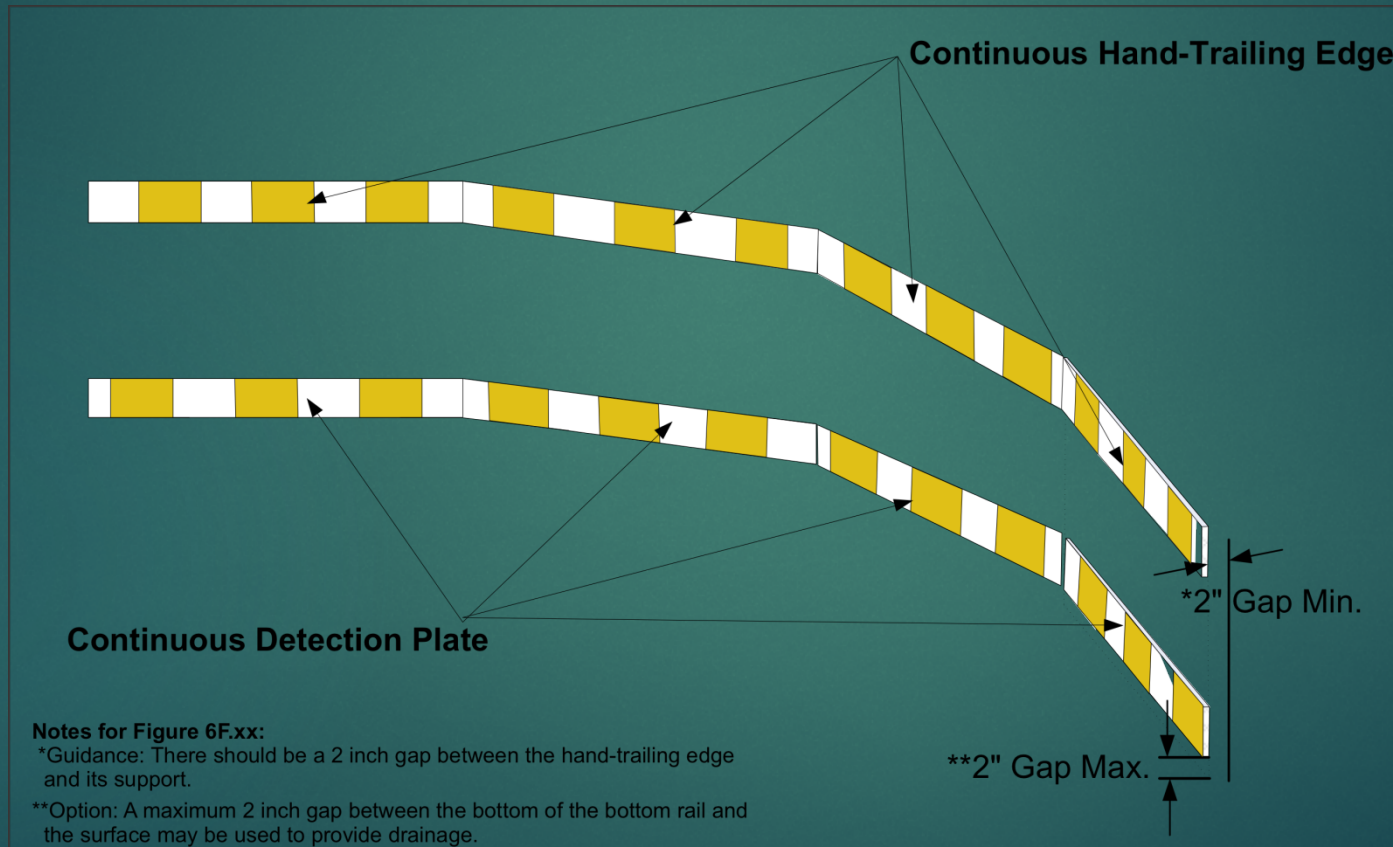
Elements cont. - Channelizers

MUTCD – Section 6F.63

- ▶ Devices **SHALL** be detectable and visible.
- ▶ Devices **SHALL** have continuous top and bottom surfaces
- ▶ Top: 32" min. above the ground
- ▶ Bottom of the bottom: 2" max. above the ground



Elements cont. - Channelizers



Elements cont. – Sidewalk Closure

MUTCD – Section 6D.02

- ▶ A detectable barrier **SHALL** be placed across the full width of the closed sidewalk.



Elements cont. - Ramps

- ▶ Width – 48" minimum
- ▶ Slope
 - ▶ Running – 8% maximum
 - ▶ Cross Slope – 2% maximum
- ▶ Edge protection – 4" bottom "rail" to prevent roll-offs
- ▶ Color - yellow



Elements cont. - Ramps

- ▶ Turning area – 48" by 48" at top of ramp
- ▶ Landing area – 48" by 48" at bottom of ramp
- ▶ Hand Rail - 100 lb per inch load capacity
 - ▶ Best practice; not required



Elements cont. – Signage

Sign stands



Audible signs



Temporary Pedestrian Access Route Standards

MUTCD Section 6D:

- ▶ ADVANCE NOTIFICATION OF SIDEWALK/ROUTE CLOSURE SHALL BE PROVIDED
- ▶ ...ADEQUATE PEDESTRIAN ACCESS AND WALKWAYS SHALL BE PROVIDED

Temporary Pedestrian Access Route Standards

- ▶ IS THE EXISTING ROUTE DETECTABLE AND ACCESSIBLE?
- ▶ THOSE FEATURES **SHALL** BE DUPLICATED IN THE ALTERNATE ROUTE

Temporary Pedestrian Access Route Standards

- ▶ A BARRICADE **SHALL** BE PLACED ACROSS THE ENTIRE WIDTH OF THE SIDEWALK
 - ▶ Do pedestrians with visual disabilities normally use the sidewalk? Detectable?
 - ▶ Can we predict who will use the sidewalk?

Decision Making Process- Pedestrian Accommodation

- ▶ Leave existing facility open
- ▶ Same Side travel preferred
 - Temporary route parallel to existing

AS A LAST RESORT:

Detour around construction

Project Tips

- ▶ Pre-design - Site inspection
 - ▶ Verify pedestrian volumes
 - ▶ “goat paths”
 - ▶ Viability of alternate pathways
- ▶ Project set-up
 - ▶ Accessible devices
 - ▶ Accessible pathway
 - ▶ “Folding chair” view



Thank you!

Resources

- ▶ 1.) “Manual on Uniform Traffic Control Devices, (MUTCD) 2009 Edition”, http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm
- ▶ 2.) “Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way” <https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines>
- ▶ 3.) “Accommodating Pedestrians in Work Zones”, FHWA brochure, publish date unknown, online at: <http://safety.fhwa.dot.gov/wz/planning/fhwasa03011/>

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