

## ADA COMPLIANCE AND PEDESTRIAN WORK ZONE SAFETY

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## WHAT WE'LL COVER TODAY

- Brief overview of the ADA
- Standard Details
- •Misc. Sidewalk and Parking Stuff
- Work Zone Compliance



# AMERICANS WITH DISABILITIES ACT OF 1990

Prior to the ADA - Sec. 504 Rehabilitation Act (1973) Accessibility on *federally funded* facilities

In 1990, President George H.W. Bush signed the Americans with Disabilities Act (ADA)

The intent of ADA is to allow people with disabilities to participate **fully in society.** 

Accessibility in all facilities, workplaces, commercial buildings. (When built or altered.)

ADA compliance is not only about accessibility...
It is about Safety!



# PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG)

- The ADA created the US Access Board, which develops standards for ADA.
- The Access Board, with the US DOT, developed PROWAG.
- ❖ The PROWAG final rule has released, but...
- US DOT and US DOJ must adopt rules and guidance before the PROWAG becomes law.
- Much of what we build follows PROWAG.



# Think of the User



#### AND HERE IN MAINE:

There are over 340,000 persons with one or more disabilities residing in Maine

Among the six types of disabilities identified, the highest prevalence rate was for "Mobility Disability," at 13 percent. (National average is 13.7%)

Visual disabilities account for 5 percent.

Data Source: Disability and Health Data System and the US CDC, 2019











# MOBILITY DEVICES COME IN MANY SHAPES AND SIZES.





# Many people with disabilities do not use any devices.



#### TRUE OR FALSE

People with visual impairments always...

- 1. Use red canes and/or service dogs.
- 2. Cannot see anything.
- 3. Self-identify as someone with a visual impairment.







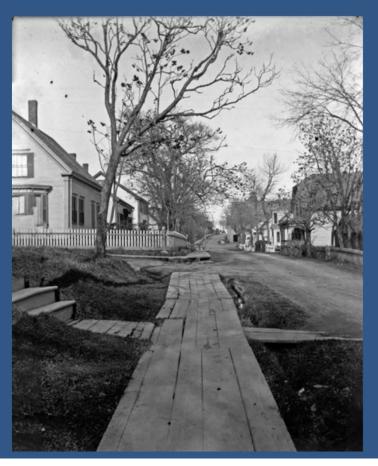


#### PEOPLE WITH VISUAL IMPAIRMENTS

- Sometimes do not use aids at all.
- 85% of people with visual impairments are not totally blind. (American Foundation for the Blind)
- Some do not identify as being visually impaired, but they may fall under the vision standard defined as low vision.



# MAINE DOT STANDARD DETAILS - CURB RAMPS





### MAINEDOT STANDARD DETAILS

MaineDOT has more comprehensive Standard Details for Pedestrian Ramps 801(11-27) and Detectable Warning placement 608(02).

We are updating our details, and we have adopted designs that require cross slopes of 1.5%.

www.maine.gov/mdot/civilrights/ada/docs/20 21/ADA\_rev\_jun10.pdf

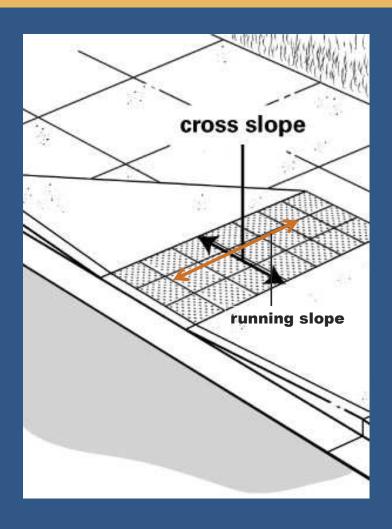


# RUNNING SLOPE & CROSS SLOPE

Running slope should be no more than 8.3% or 1:12. Build lower if possible.

Although PROWAG allows for 2.1% cross slope, MaineDOT will require no more than 1.5%.

Both slopes are measured at the center of the ramp.





## FLUSH?



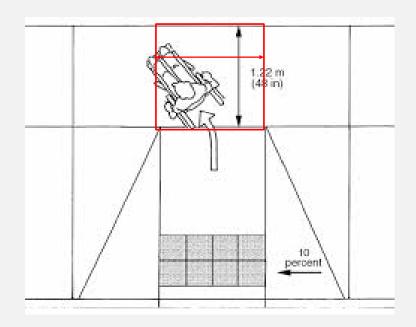


# LEVEL TURNING SPACE (LANDINGS)

A level landing is vital to ensure that a chair or mobility device can make a turn on and off the ramp or go past the ramp.

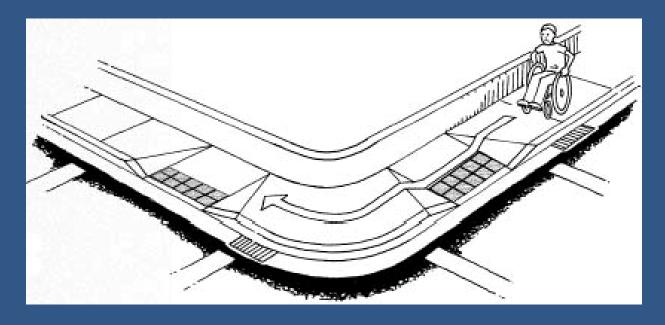
Must be width of the ramp.

Level landings should be no more than 2% in both directions.





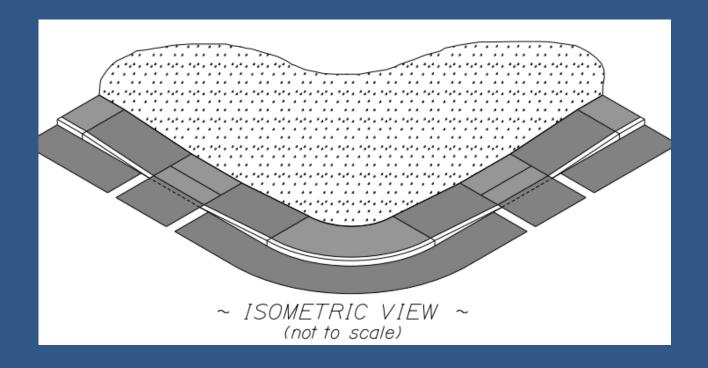
# WHY WE REQUIRE LEVEL TURNING SPACES.



Designing Sidewalks and Trails for Access, FHWA 2002



## WHAT WE BUILD INSTEAD...





# DETECTABLE WARNINGS (DW)





## WHY DO WE HAVE DW'S?





# DETECTABLE WARNINGS

Plate or area at bottom of ramp with raised truncated domes.

Domes alert people with visual impairments to STOP at roadways.

They DO NOT direct a person.

Should be placed FULL width of the curb ramp.

Should be at least 2 feet deep.







#### MORE ON DETECTABLE WARNINGS

Where are DW's needed?

- ❖At street intersections with signalization:
  - Stop sign
  - Signal
  - Yield (New in PROWAG)
- At mid-block crossings
- ❖At some RR crossings

DW's are not needed at driveways or parking lots unless they warrant signalization.

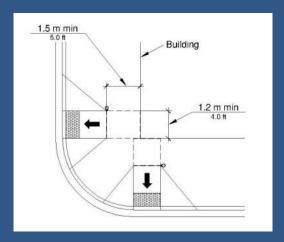


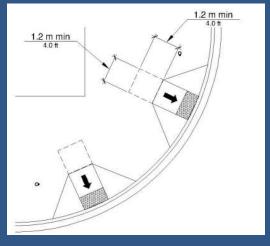
### PERPENDICULAR RAMPS

PROWAG Prefers perpendicular ramps.

Turning space is above the ramp:  $1.5\% \times 1.5\%$  and 4 feet.

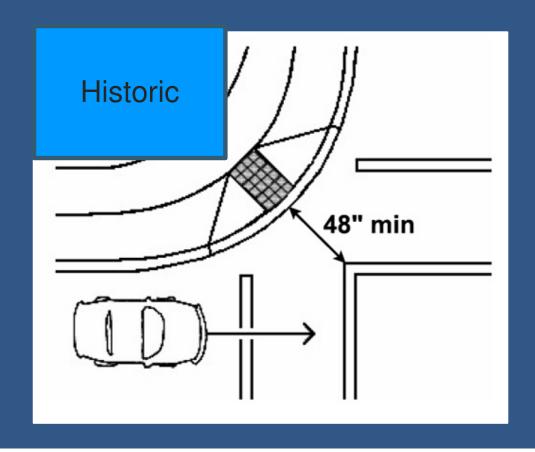
The tip down/flared side (curbing) should not exceed 10%.







### DIAGONAL CURB RAMPS – A LAST RESORT





#### WHAT'S NEW - CROSS SLOPE 1.5%

- Our standard details for cross slope have changed. We are requiring, if possible, 1.5%, especially on sidewalks.
- The base may be 1.5% but once the mix is placed...



### **LEVELS**

We are now allowing 4-foot smart levels to be used for inspection.

I prefer to use both.









#### **COUNTER SLOPE**

Counter slope should still be 5%, but there are many instances where is can be more.

If you have a parallel ramp and the slope at the bottom is flat or 2%, the counter slope can be 8.3%.

If a ramps slope is 2% than a counter slope can be 6.3%



### PEDESTRIAN WORK ZONE SAFETY





### **QUESTION**

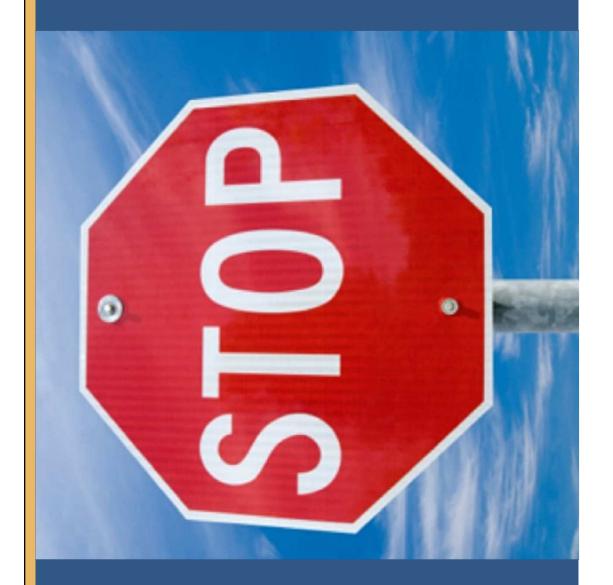
What do you do when a work zone is unsafe for vehicles?



### **QUESTION**

What do you do when a work zone is unsafe for pedestrians?







#### THINK ABOUT THE USER

Pedestrians won't want to backtrack or add distance to their trips.

More importantly ...

People who have physical impairments may not be able to do so.



#### PRE-CONSTRUCTION

Is there a Special Provision for pedestrians? This may be happening more on Village Partnership projects.

What pedestrian facilities will be impacted?

Does the Contractor have a point person responsible for pedestrian safety?

If necessary, meet with the town and bring the contractor's pedestrian designee with you so that they will understand concerns.

Does the Contractor have what they need to make the area safe and usable?



# CONSIDERATIONS FOR PEDESTRIANS IN WORK ZONES

- \*Physical separation from workspace and vehicular traffic.
- \*Adequate and safe detour(s) whenever sidewalks are closed or blocked.
- \*Maintain pedestrian access to businesses, residences, transit stops, etc.
- \*Provide temporary nighttime lighting for pedestrian walkways throughout the work zone.



#### SAFETY

MATERIAL STORAGE: When laying out the work zone, consider designating locations where materials and supplies can be stored safely away from pedestrians

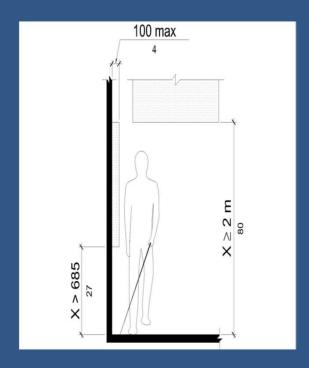


#### ENSURE ADA COMPLIANCE

- \*Sign closure ahead of construction.
- \*Can have a minimum sidewalk width of 48", erect curb ramps, and provide passing space (minimum 5 foot by 5 foot space every 200 feet).
- \*Maintain a consistent width and smooth surface to avoid creating tripping danger and to minimize barriers to wheelchair use. Firm Stable and Slip Resistant.
- \*Make all barriers and channelizing devices detectable for pedestrians with visual disabilities.
- \*Ensure that there is a continuous detectable route. Safe handrails without nails or splinters and toe rails.



#### VERTICAL AND HORIZONTAL OBSTRUCTIONS



Signs and equipment cannot encroach the pedestrian route more than 80 inches vertically

And

Less than 4 inches Horizontally

Draft PROWAG protrusion limits. (Larger text: millimeters. Smaller text: inches.)







## WHAT NOT TO DO...

Construction tape is **NEVER** acceptable to protect a work area.

Cones also are **not acceptable** barriers for work zones.

Barrels are not good unless they are side-by-side and provide a continuous barrier with toe rail at the bottom.

Barrels should only be used if no other option is available.







# **CHANNELING**

This is not acceptable channeling







# EFFECTIVE CHANNELING





Source: Vermont DO





# BE CAREFUL HOW YOU LEAVE THINGS. THINK ABOUT THE USER!







## **BEFORE**





## AFTER





## BEFORE





## **AFTER**









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## **CONTACT ME**

