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Promoting Independence and Access through Responsible Design

Part 1: Obligations and Sidewalk Basics

will begin at 2:00 pm ET

Audio and Visual are provided through the on-line webinar system. This session is closed captioned. Individuals may also listen via telephone by dialing 1-857-232-0476 Access Code: 368564 This is not a toll-free number.

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Webinar Platform Keyboard Shortcuts

- Full list- Keyboard shortcuts from the help menu on the Menu Bar.
- Chat: Move cursor to the Message text box
 - Windows: Ctrl+M
 - Mac: Command-M
- Speaker level up:
 - Windows: Ctrl+Alt+Up Arrow
 - Mac: Command-Option-Down Arrow

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Captioning Keyboard Shortcuts

- Open Closed-Captioning window
 - Windows: Ctrl+F8
 - Mac: Command-F8
- Close Closed-Captioning window
 - Windows: Alt+D4 or Ctrl+W
 - Mac: Command-W

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Captioning

Real-time captioning is provided during this webinar.

The caption screen can be accessed by selecting the "CC" icon in the AUDIO & VIDEO panel.

- Once selected you will have the option to re-size the captioning window, change the font size, and save the transcript.

Photo- arrow points to the "cc" icon in the audio and video panel.

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Listening to the Webinar

Online:

- Please make sure your computer speakers are turned on or your headphones are plugged in
- Control the audio broadcast via the AUDIO & VIDEO panel
- If you have sound quality problems, please go through the AUDIO WIZARD by selecting the microphone icon within the AUDIO & VIDEO panel

Photo- arrow pointing to microphone icon on the audio and video panel

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Listening to the Webinar (cont.)

- To connect by telephone:
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Pass Code: 368564
This is not a toll-free number

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Submitting Questions

- In the webinar platform:
 - You may type and submit questions in the CHAT area text box or press Control+M and enter text in the CHAT area; your questions and comments will only be visible by session moderators
- If you are connected via a mobile device you must submit questions in the CHAT area within the app
- Questions may also be emailed to:
ADAtraining@transcen.org

Photo- Participant List


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Customizing your view

- Resize the whiteboard where the presentation slides are shown to make it smaller or larger by choosing from the drop down menu located above and to the left of the whiteboard; the default is "fit page"

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Customize Your View continued

- Resize/Reposition the CHAT, PARTICIPANT, and AUDIO & VIDEO panels by “detaching” and using your mouse to reposition or “stretch/shrink”
- Each panel may be detached using the  icon in the upper right corner of each panel

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Technical Assistance

If you experience technical difficulties

- Use the CHAT panel to let us know
- E-mail ADAtraining@transcen.org
- Call 301-217-0124

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- This webinar is being recorded and can be accessed within a few weeks
- You will receive an email with information on accessing the archive

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Certificates of Participation or American Institute of Architects (AIA) Credits:

Credit hours or certificates of Participation can only be awarded to those who submitted the required payment along with their registration for this webinar session.

- You will need to listen for the continuing education code which will be announced during the session.

After we confirm your attendance we will provide the certificate of participation and/ or 1.5 LU/HSW-AIA credit.

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About your hosts...

- TransCen, Inc.
 - Mission Statement: Improving lives of people with disabilities through meaningful work and community inclusion
- Mid-Atlantic ADA Center, a project of TransCen, Inc
 - Funded by National Institute on Disability, Independent Living, and Rehabilitation

Research (NIDILRR), Administration for
Community Living, U.S Department of
Health and Human Services

Photo- TransCen, INc logo

Photo- Mid-Atlantic ADA Center logo

Photo- NIDILRR logo

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Promoting Independence and Access through
Responsible Design

Melissa Anderson, PE

Melissa A Anderson, LLC

Engineering4Access.com

Photo- TransCen, Inc logo

Photo- Mid-Atlantic ADA Center logo

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Promoting Independence and Access through
Responsible Design 4-part Webinar Series

- Part 1- Obligations and Sidewalk Basic
- Part 2- Safe and Accessible Intersections

- Part 3- Curbside Access
- Part 4- Ensuring Access on Public Right of Way Projects

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Promoting Independence and Access through Responsible Design 4-part Webinar Series

- Part 1 – Obligations and Sidewalk Basics
 - Accessibility Laws
 - Standards and Guidelines
 - Title II obligations
 - Technical Requirements for Pedestrian Access Routes

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Federal Civil Rights Laws

- 1973 Rehabilitation Act, Section 504
 - Applies to programs and activities receiving Federal funds
- 1990 Americans with Disabilities Act
 - Prohibits discrimination in the provision of facilities, services and programs
 - Title II applies to State and Local Governments

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Establishing Standards

- US Access Board- independent Federal agency
- Tasked with developing minimum design criteria
 - Telecommunications
 - Medical diagnostic equipment
 - Built environment- buildings, sites and recreation
 - Transportation- infrastructure and vehicles
- Develop Guidelines establishing minimum level of access
- Standards adopted from Guidelines and enforcement by other Federal agencies
 - Department of Justice- 2010 ADA Standards
 - Department of Transportation ADA Standards
 - Departments of Defense, Education, General services

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Public Right of Way Access

- Enforcement

- Department of Transportation- Section 504 Authority
 - Complaint based
- Department of Justice- ADA Program Access
 - Complaints
 - Project Civic Access
- General ADA Regulations of non-discrimination apply
 - Standards? 28 CFR 35.151© and (i).
 - Guidelines? Proposed Public Right of Way Accessibility Guidelines
- Soooo.....?

Photo- President George Bush and others during the signing of the Americans with Disabilities Act.

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ADA Title II- Program Access

ADA Title II prohibits discrimination against people with disabilities in all State and Local Government programs, services and facilities

What to do in the public right of way?

Photo- Cover of the 2011 proposed Public Right of Way Accessibility guidelines

Photo- Cover of the Department of Justice 2010 Standards

Photo- a plate of hot wings and a bottle of hot wing sauce

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Designing Access

- DOJ/DOT technical memo for resurfacing and the Q & A say curb ramps must follow the 2010 ADA Standards, see Q1.
- FHWA Memo from 2005 says for areas not fully addressed in the building standards, the Draft Public Right of Way Guidelines can be used the as best practice.

Photo- spider web

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PROWAG Rulemaking Update

- Final Rule Draft has been approved by the Board
- Review by the Office of Management and Budget
- Publication in the Federal Register

- Adoption by the Department of Justice and Department of Transportation
- Rulemaking is currently not moving

Slide 23 What can State and Local Agencies do in the meantime?

- Review policies
- Review Standards
- Provide education
- Enforcement at local level

Photo- bright yellow hardhat

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Obligations for Success

- New construction is required to be accessible.
- Alterations to existing facilities must be accessible to the maximum extent feasible within the scope of the project
- Existing facilities that have not been altered cannot deny access to persons with disabilities

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New Construction

Accessibility is easiest to achieve in a new construction

Photo- an aerial view of a new construction site with rods laid out, but not complete

Photo- site plan for a new large development

Photo- bus stop bench next to a road with no sidewalk. A dirt path in grass is clear from being worn down by pedestrians

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Alterations

- In alterations, it may not be possible to meet all of the accessibility requirements.
- Follow new construction provisions to the extent practicable... within the scope of the project.
- Document decisions!

Photo- intersection under construction with the sidewalk partially torn up and construction barrels in the middle of the road. A bobcat is seen in the background across the street.

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Existing Facilities

- Cannot deny access
- Title II – Transition Plan
- Every program or inaccessible facility identified in the self-evaluation needing structural modifications for accessibility must be in the transition plan
- Solicit input from interested parties
- Specifies the steps for achieving accessibility
- Copy of plan available for public inspection
- Responsible person

Photo- crosswalk at a signalized intersection. There is a pushbutton on the far side but no curb ramp for access.

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Pedestrian Access Routes

Scoping and Technical Requirements

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Type of Pedestrian Facilities Pedestrian Access Routes

- Sidewalks
- Shared-use Paths
- Shoulders

Photo- Group of women walking along a city sidewalk

Photo- shared use path with people walking

Photo- woman with stroller on rural road with shoulder

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Ped Access Route vs. Shared Use Path vs. Trails

- Pedestrian Access Route
 - Pedestrians Only
 - Transportation and Recreation
- Trails
 - Pedestrian Recreation
- Shared Use Paths
 - Pedestrians and bikes
 - Transportation and Recreation

Photo- lady and child walking down a wide concrete sidewalk

Photo- man walking down a dirt path in a forest

Photo- shared use path being used by pedestrians, in-line skater and a bicyclist

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Is a sidewalk Required?

If sidewalks are provided, then they are required to be accessible to and usable by a person with a disability.

Photo- bus stop next to a road with no sidewalk. A dirt path can be seen where people walk in the grass.

Photo- people in a wheelchair on the shoulder of a busy road

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Is a Sidewalk Required?

Independence and Inclusion

Photo- family at the park with a path and playground equipment. A boy smiles from a red trike while his sisters play in the background. The family came for a picnic and a nerf gun war.

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Continuous Pedestrian Access Route

Photo- man in a wheelchair on a shared use path next to a lake. There is an educational sign set

back off the path in the grass that cannot be reached by a person in a wheelchair.

Photo- a crosswalk at a signalized intersection. There is a pushbutton on the far side, but no curb ramp for access.

Photo- a narrow sidewalk with green garbage cans blocking the way

Photo- a sidewalk blocked by a temporary banner set at the top of a curb ramp. A man using a wheelchair is in the background

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Minimum Accessible Criteria

- Clear width
- Grade and Cross slope
- Surface characteristics
- Protruding objects not allowed
- Clear space

Photo- an asphalt shared use path winding through a row of utility poles

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Clear Widths

- Clear width
 - Continuous
 - 4 ft wide minimum, full width for a shared use path
 - If less than 5 ft, 5 ft x 5 ft passing space every 200 ft

Photo- 4 foot sidewalk with 5 foot wide passing space

Photo- shared use path being used by cyclist, rollerbladders, and pedestrians. A red arrow points out the full width requirement

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Continuous Clear Width

- Clear width
 - Continuous
 - 4 ft wide minimum, full width for a shared use path
 - If less than 5 ft, 5 ft x 5 ft passing space every 200 ft

Photo- a man walking on a sidewalk that goes around a large tree

Photo- a sidewalk that has been widened to provide a 4 foot of width around a large utility pole. A brick retaining wall run alongside of it.

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Slopes- Rise over Run

- Cross slope
 - Shall not exceed 2% (1:50)
- Running slope, or Grade
 - Shall not exceed the grade of the road in street ROW
 - Shall not exceed 5% (1:20) in an independent ROW
 - Constraints- comply to the extent practicable

Photo- drawing of a young man in a wheelchair with a 2 percent arrow shown across the sidewalk where he is resting

Photo- Drawing of a young man in a wheelchair leaning forward to push his wheelchair up a steep slope

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Cross Slope

- As flat as possible and still provide drainage
 - Flat 0% is easiest for wheelchair users
 - 2% max allows for drainage
 - Minimize cross slope as running increases (best practice)

Photo- a man using a digital level to check the cross slope on wet concrete

Photo- a sidewalk next to a busy steep road in an urban area. A woman is standing at the curb ramp next to a fire hydrant.

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Running Slope, or Grade

- As flat as possible
 - May be the same as the street grade
 - When not constrained by street grade, 5% max
 - Increase width as grade increases so people using wheelchairs can use wide arcs to reduce their effort and speed (best practice)
- 2010 ADA Standards limit grade 5% or use ramp requirements up to 8%

Photo- a sidewalk next to a busy steep road in an urban area. A woman is standing at the curb ramp

next to a fire hydrant. Curved red arrows show the path a wheelchair user might use to reduce speed and steepens

Photo- a sidewalk next to a steep road in a rural area

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Running Slope, or Grade

- Not constrained by street grade
 - When not constrained by street grade, 5% max
 - Physical and regulatory constraints

Photo- a pedestrian bridge over a road, sidewalk and cycle track.

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Compound Slopes

- Running slope and cross slope in same place
 - Difficult to maneuver
 - Instability
 - Takes increased effort

Photo- drawing of a man in a wheelchair tipping on the steep flare to a driveway

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Construction Tolerance?

- Industry tolerances allowed except where dimensions are stated as a range
 - Ranges: 0-5% slope, max and min dimensions
 - Rounding?
 - Methods of measure
 - Tools
- Account for tolerance in design (Best practice)
 - Cross slope 1.5% max
 - Running slope 4.5% max, etc.
 - Clear width 4.5 ft

Photo- a digital level on a sidewalk next to a wall

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Surface Requirements

- Firm, stable and slip resistant
- No large openings or gaps
- Minimal vertical discontinuities

Photo- a sidewalk badly heaved from large tree roots

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Surface Requirements

- Firm, stable and slip resistant
 - Concrete or asphalt pavement
 - Flush brick or paver surfaces
 - Grass? Crush rock? Mulch?

Photo- people walking on a smooth brick sidewalk

Photo- man in a wheelchair on an asphalt shared use path.

Photo- rushed rock path along a shoulder usable by pedestrians.

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Surface Requirements

- No large openings or gaps – 1/2 inch max in the direction of travel

Photo- Utility cover with wide drainage openings

Photo- close up view of a wheelchair front caster dropped into a drainage grate that has the long openings in the direction of travel.

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Surface Requirements

- Minimal vertical discontinuities
 - 1/4 inch max vertical
 - 1/2 inch beveled
 - May combine with bevel on top
- Grade breaks must be flush

Photo- Drawing of 1/4 inch vertical rise in surface

Photo- Drawing of tapered 1/2 inch rise in a surface

Photo- Drawing of a 1/2 inch rise with the lower 1/4 inch vertical and the top 1/4 inch beveled

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Flange Way Gap

Flange way gap provision for light rail and freight rail at pedestrian rail grade crossing

Photo- Drawing of rail road crossing and gap allowance for freight at 3 inches max and light rail at 2 1/2 inches max.

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Circulation Path

- Any place a person can walk
- Pedestrian Access Route
 - Continuous and 4 ft wide min
 - Connects to accessible elements
 - Width, slope and surface requirement apply to ped access route only
- Protruding objects apply to full width
 - 4 inch limit
 - 27-80 inches above surface

Photo- a wide sidewalk with banners and a curb ramp. A red arrow showing the pedestrian access route

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Ramps

- Same as 2010 Standards
 - Slope: 1:12 max (8%)
 - Cross slope: 2% max
 - Clear width: 36" min
 - Rise: 30" min
 - Level landings
 - Handrails (both sides)
 - Edge protection

Photo- ramp with handrails and edge protection

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Handrails

- Same as 2010 standards
 - Ramps, stairs and sidewalks
 - Knuckle clearance: 1 1/2" min
 - Diameter: 1 1/4"-2"
 - Applies to outer diameter
 - Circular & noncircular cross sections

Photo- Figure (a) shows a handrail with an approximately square cross section and figure (c) shows an elliptical cross section. The largest cross section dimension is 2 2 inches maximum. The perimeter dimension must be 4 to 6 1/4 inches.

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Protruding Objects

- Objects between 27" and 80" may not protrude more than 4"
- Post mounted objects must not protrude more than 4" beyond the base
- Space greater than 12" between posts must be detectable

Photo: Post-Mounted Objects: Objects mounted on posts/ pylons 27 – 80 in above the finish surface

with overhangs limited to 4 in max measured from the post/ pylon base. Object mounted between posts or pylons separated more than 12 in with its lowest edge 27 in max or 80 in min above the finish surface.

Photo- A person using a long cane is shown approaching the sloped underside of a staircase. A portion of the area below the stairs in front of the person has a vertical clearance less than 80 inches (2030 mm). A railing 27 inches (685 mm) high maximum separates this space from the areas where a vertical clearance at or above 80 inches (2030 mm) is maintained.

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Protruding Objects

Photo- a city street. A banner is installed on the side of a light pole and protrudes over the sidewalk about 6 ft off the ground.

Photo- a woman walking toward a roadway sign installed at shoulder height

Photo- a pedestrian pushbutton that extends about 8 inches from the pole and has signs on each side to indicate the crosswalk direction.

Photo- an historic military cannon on a sidewalk to the left of a depressed corner. The barrel of the cannon protrudes over the sidewalk about waist high. Also a light pole with a stop sign fully blocks the sidewalk to the right.

Photo- Man walking into low hanging tree branches.

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Temporary Routes and Work Zones

- Alternate routes provided as needed to maintain access
- MUTCD Chapter 6 (6D, 6F, 6G)
 - Routing and signing
 - Barriers for protection
 - Channelizers for guidance and wayfinding
- A temporary lack of access is allowed for maintenance
- Temporary facilities such as pop-up events, street fairs, farmer's markets must also be accessible

Photo- a street temporarily closed to traffic being used for pedestrians to walk and sit at tables in the street

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Temporary Routes and Work Zones

Photo- two barricades used to block a closed sidewalk. One indicates sidewalk closed, the other provides detour information

Photo- Drawing from the Manual on Uniform Traffic Control Devices book showing set ups for temporary traffic control for pedestrians.

Photo- a section of sidewalk torn out with a piece of plywood providing a temporary surface. Barrels with yellow tape and tipped over cones protect each side - not really protected.

Photo- plastic barriers used to provide channelizing information and protection for pedestrians when used in a work zone.

Photo- a construction area protected by tall orange barriers.

Photo- a street crossing with a bobcat and huge pile of dirt blocking the way. a couple orange barriers hold down plastic covering the dirt but provide no protection for pedestrians

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Maintenance

- Requirement to maintain accessible features
- A temporary lack of access is allowed for maintenance
- Best practices
 - Policies
 - Equipment
 - Staff
- Examples
 - Snow removal
 - Debris removal
 - Tree trimming

Photo- a narrow sidewalk blocked by overgrown bushes blocking the way and a truck is parked adjacent to the sidewalk in the same spot.

Photo- a shared use path covered with sediment from a flooded river. Foot prints and wheel tracks can be seen where people have traveled through anyway.

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Best Practices

- Listen to the public and accommodate requests
- Maximize clear width
- Minimize slopes
- Consider the impact of compound slopes

- Design for construction tolerance
- Standardize methodology for inspections
- Routine maintenance schedules
- Look for “low hanging fruit”

Photo- a sidewalk with flexible permeable material to reduce root heaves

Photo- sidewalk heaves cut to reduce tripping hazards

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Resources

- US Access Board
 - www.access-board.gov
 - www.row@access-board.gov
- FHWA
 - www.fhwa.gov
 - State Division Office
- DOJ
 - www.ada.gov
 - Title II Technical Assistance

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Questions?

Photo- a man in a wheelchair at the bottom of a set of stairs with nowhere to go.

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Thank you!

Future Webinars-

- ✓ Part 1- Obligations and Sidewalk Basics

- Part 2- Safe and Accessible Intersections

 - Curb ramps, street crossing, signals

- Part 3- Curbside Access

 - Transit stops, parking, passenger loading zones

- Part 4- Ensuring Access on Public Right of Way Projects

 - Design decisions, construction inspection and best practices

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Certificate of Participation and/or LU/HSW AIA Code

- Please consult the reminder email you received about this session for instructions on obtaining a certificate of participation from this webinar.
- Please email code above to adatrainig@transcen.org by 5 OM E.T. on Wednesday, May 1st.

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photo- Americans with Disabilities Act National
network logo.

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Thank You!

