ADA Access on Paved Bikeways

California State Trails & Greenway Conference
Accessible Trail Planning, Design & Construction
Friday, May 11, 2007
Michael Jones, Alta Planning + Design
Outline

- Definition of Facilities
- ADA Requirements
- Pathways
- Parallel Paths
- Intersections
- On-Street Bikeways
- Over/Under Crossings
- Other Facilities
Definitions

- Caltrans: Class I Bikeway (Bike Path)
- Multi-use Path
- Multi-purpose Path
- Shared Use Path

- Funding source dictates how a facility is defined
- Transportation v. recreation
- Caltrans HDM
ADA Requirements

• Transportation (Class I bike path)
• Recreation (Multi-use Trail)
• Defined by law and court cases
• Title II, Federal Code 28 CFR
ADA Requirements

- Paved bicycle paths will almost always meet or exceed ADA if built to accepted transportation standards.
- Paved recreational trails should also conform to transportation standards; if not, comply with recreational use ADA requirements.
Paved Bikeway Elements

- Bike Paths
- Parallel Paths
- Intersections
- On-Street Bikeways
- Over - Under Crossings
- Other Facilities
Bike Paths

- Width (8’ min – 10’ preferred)
- Gradient (5% sustained, up to 12.5% for 10 feet with landings)
- Landings not recommended by AASHTO
- Railings typically not used
- Cross slope 2%
- Surface: smooth, gaps $\frac{1}{2}”$ max.
- Separation of users
- Clearance: Vert: 10’ Horiz: 2’
Separate pathways and clear signage can help reduce conflicts between users who travel at different speeds.
Parallel Bike Paths

• Known as Side Paths, Sidewalks
• Controversy on safety
• 8’ minimum width
• 5’ setback from roadway
• Same requirements as bike paths, except gradient
• Driveways
• Exceeds sidewalk requirements
Parallel Bike Paths
Intersections

- Bollards
- Curb ramps (1/4” max vertical)
- Detectible warning strips
- Placement of ramps
- Crosswalks - medians
- Audible/ Vibro-tactile Signals
- Accessible Ped Buttons
- Signal Timing
- Curb Extensions
Intersections

**MULTI-USE TRAIL CROSSING PROTOTYPE**
On-Street Bikeways

- Bike Lanes
- Bike Routes
- Roadways
- Gradient Issue
Bridges - Undercrossings

- Bike/ped structures must be 100% accessible
- Handrails
- Lighting
- Access
- Use of landings
- Avoid 180 degree curves
- Safety - security
Other Facilities

- Trailheads
- Gangways/Piers
- Beach Paths
Summary

• Routine accommodation
• Barrier free access
• Equivalent access
• Comparable experience

Exceptions:
• Significant impacts
• Alter setting/purpose of facility
• Prohibited by law
• Impractical due to steep terrain/construction practices
DESIGNING FRONTCOUNTRY ACCESSIBLE TRAILS
Course Objectives

• Design and construct trails that are compatible with resource management objectives
• Design and construct trails that are sustainable and require minimal maintenance
• Design and construct trails that provide a high quality experience for all users
Blending Your Trail with the Outdoor Environment
The Natural Environment is not Angular
Accessible Trails Should Follow the Contours of the Land and have Soft Edges
Incorporate Natural or Unique Features Into Your Trail Alignment
Limbs that do not represent an overhead obstruction should be retained
Retaining Walls may be Required to Protect Trees or Bridge Over Obstacles
Retaining Walls Should Utilize Native Materials When Possible
Retaining Walls Constructed of Native Materials Should be Discrete and not Overpower the Setting
Providing a Firm and Stable Surface
The Standards for Firmness and Stability and Instruments to Measure Tread Surfaces have been Developed
Native Tread Surfaces Need to be well Shaped, Uniform and Compacted
Traditional Methods of Stabilizing Trail Tread
Native Soils may Need to be Strengthened by Adding Crushed Rock (Shale)
Trails are in Dynamic Environments and Surfaces Cannot be Kept Dry or Clean
Trail Surfaces Need to Have Enough Roughness and Texture to Provide Traction
Providing Edge Protection
Choice of Edge Protection Should be Consistent With Setting
Native Materials Logs and Rocks
Plants can Replace Railing and Curbs
Do not Take the Built Environment Into the Natural Setting
Accessible Trail Construction Requires:

- Following sound trail layout and design principles
- Following best practices in trail construction
- Using native materials to maintain the natural setting
- Collaboration with accessibility experts
- Creative and innovative approaches