



Trail Standards

March 2010

Trail Standards

- What they are
- Why we are working on them
- How they will affect you
- How we will establish them
- What will the finished product look like

Hiking Trails

Maintained by NYNJTC

- Are designed and built to serve a particular purpose
- Provide a quality outdoor experience
- Protect the resources
- Connect to other trails
- Are managed in partnership with landowners
- Are maintained to our standards

Trails Council Members

- Individually have areas of expertise - geographic, technical, or leadership
- Hold a variety of opinions
- Collectively understand hiking trails and their management
- Responsible for managing the Trail Conference's main program

Expectations this Evening

1. Learn about other types of trails even though we may not maintain them
2. Have the results of discussion form basis of Trail Design Standards which will be in Trail Management Guide
3. Reach an agreement so document does not go to the board - board members are not experts on trails, you are
4. Continue discussion at future Trails Council meetings if we don't finish tonight

Lots of Trail Standards Exist

- US Forest Service
- New York State
- Portland , OR
- ADA
- Rock climbing
- No consensus as to categories
- Many similarities particularly on technical details

Types of Trail Standards

- Maintenance
- Construction – more of a how to build a water bar
- Design – Should I use stepping stones, puncheon or turnpiking?

NYS Trail Guidelines

- To minimize
 - Grade
 - Cut and fill
- Away from stream banks, wetlands and unstable slopes
- With drainage devices such as waterbars or dips
- On existing woods roads

NYS Trail Guidelines (2)

- Cross streams
 - At right angles
 - On low stable banks
 - On firm bottoms
 - With gentle approach slopes
- Use natural materials for stream bank stabilization where possible
 - Bridges
 - Side hill construction
 - Puncheon or bog bridges

Where TC Disagrees

- Use local natural materials
- Use existing woods roads -- TC does not want to use existing woods roads

From Trails Policy Section 2.2

- Trails should afford an appropriate and satisfying outdoor experience
- Fair and reasonable access to trails on public land are based on the following principles
 - Management
 - Resource protection
 - Safety

Safety

- Single Track for single users
- Wide track for multiuse (line of sight)
- Information at trail heads
- Parking areas visible to general public
- Educate public in trail use and personal safety

Maintenance Standards

- Maintainer strives to retain conditions of trail when s/he assumed responsibility
 - How high and wide to trim
 - Blazing
- Maintainer is not responsible for fixing problems such as erosion, just reports them

Construction /Repair Standards

- How we build or repair trails
- Use ATC's standards
- Trails have to be repaired because they were
 - Poorly designed
 - Overused or abused
 - Both

Designing a Trail

- What is the land like?
- What features do we want to promote - view, waterfall, stream, etc
- How can the resource be protected?
- What safety considerations need to be met?
- What the trail experience will users have?

Trail Experience

- Destination - views, water body, etc.
- Ability to view wildlife - birds, wildflowers, etc.
- Historical, cultural, or ecological interpretation
- Social interaction
- Solitude

Trail Design

What to consider

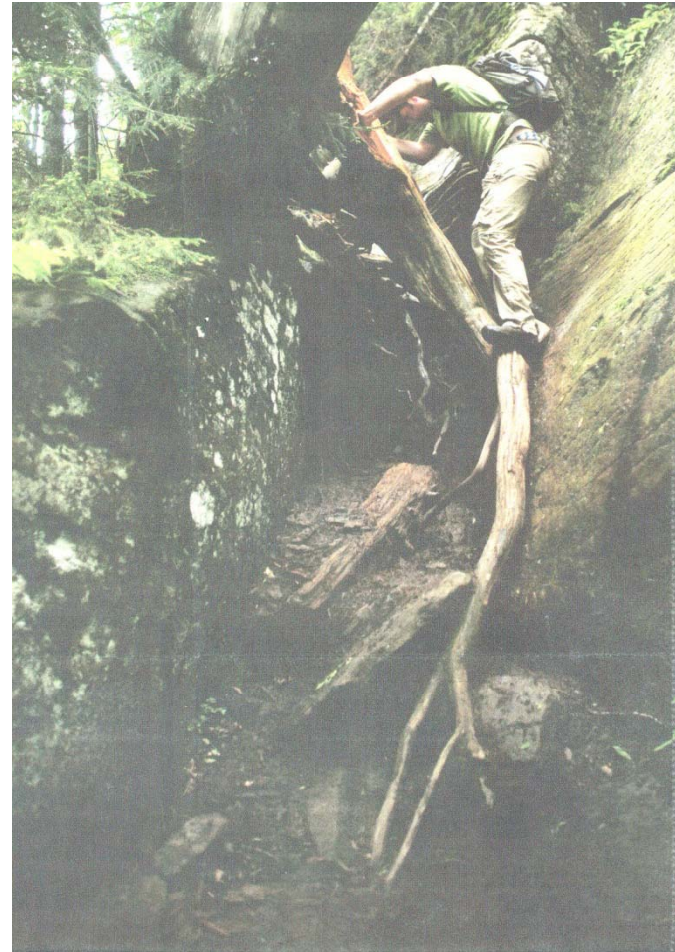
- Vertical clearance
- Treadway width
- Surface materials
- Trail length
- Users per mile
- Types of users
- Slope
 - cross
 - longitudinal
- For multi use trails
 - Sight distance
 - Turning radius

Classes of Trails

- Primitive /Backcountry
- Hiking - High Challenge
- Hiking - Moderate Challenge
- Easy/Walking
- Accessible
- Mountain Biker
- Equestrian
- Hiker and Mountain Biker

Primitive/Backcountry

- Devil's Path (Catskills)
- Many trails in the Catskills



High Challenge

- Red Dot to Mt. Tammany (West Jersey)
- Breakneck Ridge (East Hudson)
- Howell Trail (West Hudson)



Medium Challenge

- Highlands Trail on Little Windbeam
- Long Path through Harriman
- Osborn Loop and AT on Canada Hill (East Hudson)



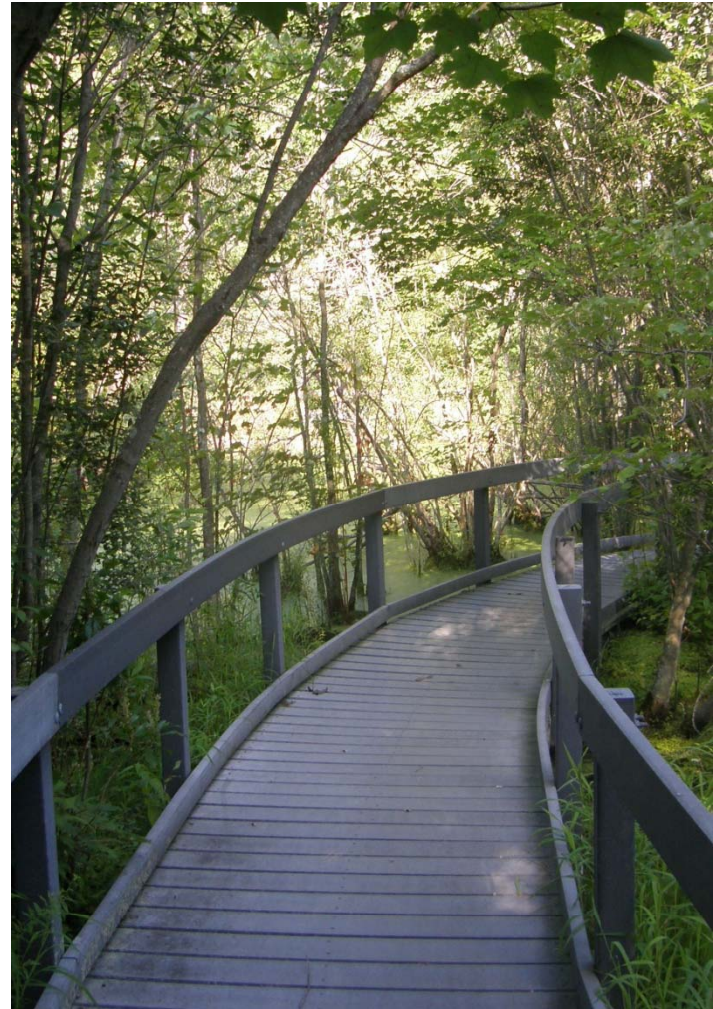
Easy/Walking

- Lakeside Trail at Teatown Lake Reservation
- Ramapo Lake in Ramapo Mountain State Forest



Accessible

- Pinecliff Sanctuary
- Teaneck Creek Conservancy in Teaneck



Primitive/Backcountry

Treadway width	18"to 30"
Surface	Soil with exposed rocks and roots, some rock scrambles
Steps	Are you kidding?
Longitudinal slope	0 – 15% with 40-50% shorter than 50 yards
Cross slope	????
Users per mile	1-5
Primary users	Backpackers, hikers
Typical length	5-15 miles (full day) 15 - 25+ miles (multi-day)

Hiking - High Challenge

Treadway width	18"to 30"
Surface	Soil with exposed rocks and roots
Steps	yes
Longitudinal slope	0-15% with short sections > 15%
Cross slope	2% -4%
Users per mile	
Users	Hikers, <i>runners, dog walkers</i>
Typical length	8+ miles

Hiking - Moderate Challenge

Treadway width	18"to 30"
Surface	Soil with exposed rocks and roots
Steps	yes
Longitudinal slope	0-8%
Cross slope	2% -4%
Users per mile	
Primary users	Hikers, <i>runners, dog walkers</i>
Typical length	

Easy Hiking/Walking

Treadway width	??
Surface	Soil, gravel, engineered wood fiber, some exposed rocks and roots
Steps	rare
Longitudinal slope	0-8%
Cross slope	1-2%
Users per mile	
Primary users	Short distance hikers, walkers
Typical length	

Accessible - ADA Federal Regulations

Treadway width	36"
Surface	Pavement, packed gravel or firm soil
Steps	none
Longitudinal slope	0-5% with some exceptions
Cross slope	0-2% with some exceptions
Obstacles	2" max height

Mountain Bike - Expert

Treadway width	12-36 inches (expert to novice)
Surface	Soil/gravel, some rocks and roots
Steps	no
Longitudinal slope	0-5% with up to 12% if needed
Cross slope	3-5%
Turning radius	6-8 feet
Users per mile	
Primary users	mountain bikers
Typical length	
Sight distance	100'-150' on curves & road crossings

Hiker-Mountain Biker

Treadway width	4' (with passing areas)
Surface	Soil /gravel
Steps	no
Longitudinal slope	0-5% with up to 12% if needed
Cross slope	2%
Turning radius	
Users per mile	
Primary users	Hikers, mountain bikers
Typical length	
Sight Distance	100-150' on curves & road crossings

Equestrian

Treadway width	18''to 30''
Surface	Soil /gravel/woodchips
Steps	no
Longitudinal slope	0-10%; preferred 5%
Cross slope	2%
Turning radius	30''
Users per mile	5-15
Primary users	Equestrians
Typical length	5 to 15-25 miles
Sight Distance	100-150' on curves & road crossings

Hiker-Equestrian

Treadway width	4'-6'
Surface	Soil /gravel/wood fiber
Steps	no
Longitudinal slope	0-12%; prefer 5%
Cross slope	4%
Turning radius	30"
Users per mile	5-15
Primary users	Equestrians
Typical length	5 to 15-25 miles
Sight Distance	100-150' on curves & road crossings

Walker-Mountain Biker-Equestrian

Treadway width	10'-
Surface	Soil /gravel/wood fiber
Steps	no
Longitudinal slope	0-3%; max 5%
Cross slope	2%
Turning radius	30"
Users per mile	5-15
Primary users	Walkers +dogs, equestrians, runner
Typical length	??
Sight Distance	100-150' on curves & road crossings

Next Steps

- Put all construction standards in a table
- Add to Trail Management Guide
- Determine an assessment process
 - Independent assessors
 - Head assessor appointed
 - Field work begins once standards are adopted