



# 2013 Accessibility Guidelines for Trail Design & Construction



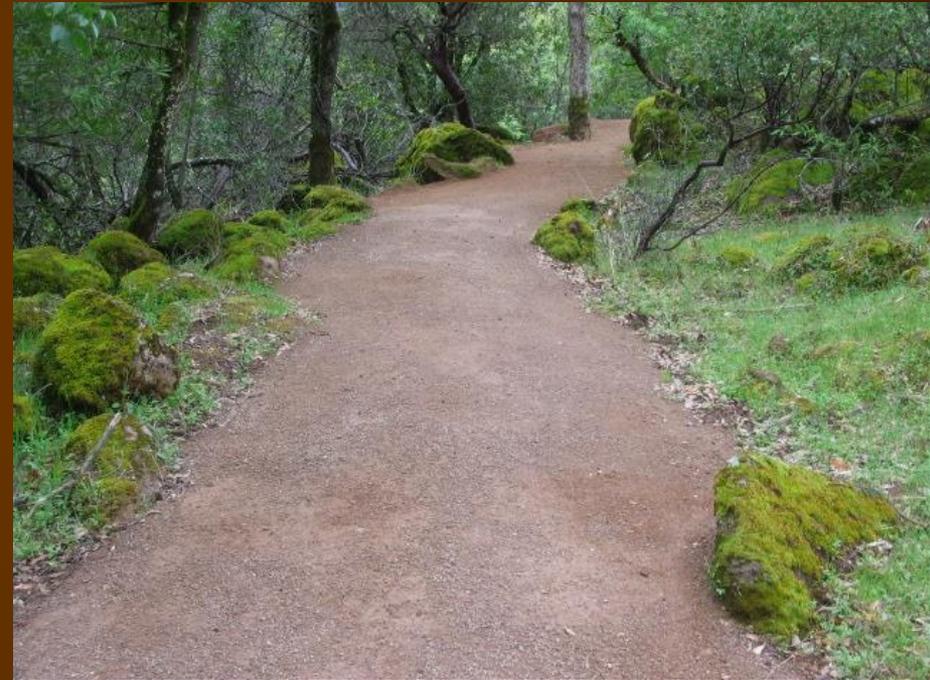
Presented by Travis Segebart and Steve Nawrath  
California State Parks, Accessibility Section

# **Session Objectives**

- **Define “Trail” as it applies to the guidelines**
- **Changes in the 2013 Federal Accessibility Guidelines for Outdoor Developed Areas**
- **Technical Provisions**
- **Identify When, Where and to Whom These Rules (Guidelines) Apply**
- **Review Guideline Conditions for Exceptions**
- **Discuss Lessons Learned**

# What is a Trail?

- A pedestrian route developed primarily for outdoor recreation purposes.



**Hiking is the experience. Not just a way to get to another facility or primarily a transportation route**

# What is not a Trail?

Pedestrian routes connecting facilities, spaces or elements within a site.

- Outdoor Recreation Access Routes (ORAR's)
- Exterior Routes of Travel (ERT's)



ORAR



ERT

## Shared Use Paths

- Used for transportation

## Trail Designations

- Equestrian
- Mountain Bike



Other Trail Uses



Other Trail Uses

# History Of Accessible Trails

# The Architectural Barriers Act Passed in 1968 (Built Environment)



- **1990**- Americans With Disabilities Act of 1990 (ADA)
- **1997**- Regulatory Negotiating Committee on Accessibility Guidelines for Outdoor Developed Areas was Formed “REGNEG”
- **1999**- REGNEG produced its proposed guidelines
- **2005**- California State Parks Adopts REGNEG Guidelines as policy
- **2007**- Report was subjected to public review & comment under the **Architectural Barriers Act (ABA)** (October 2007)
- **2009** – Report was revised “Draft Final Guidelines” and sent out for additional comments
- **2013** - Trails guidelines incorporated into **Architectural Barriers Act (ABA)**

# The Architectural Barriers Act

## Whom do the Guidelines Apply to?

- **Federal Agencies** that administer outdoor areas developed for recreation purposes
- Private or public entities constructing or altering trails on **Federal Lands** (i.e. concessions, local governments, non-profits)

# **Are Guidelines Law?**

- Access Guidelines became law November 2013 when incorporated into ABA (Federal Agencies)**
- Guidelines will/may become law at the State and Local level once incorporated into relevant code (11B CA)**
- Until the Access Guidelines become law they represent the “Best Available Information” on Accessible Trail Design.**
- California State Parks and Federal Government have adopted guidelines as policy.**

# However.....

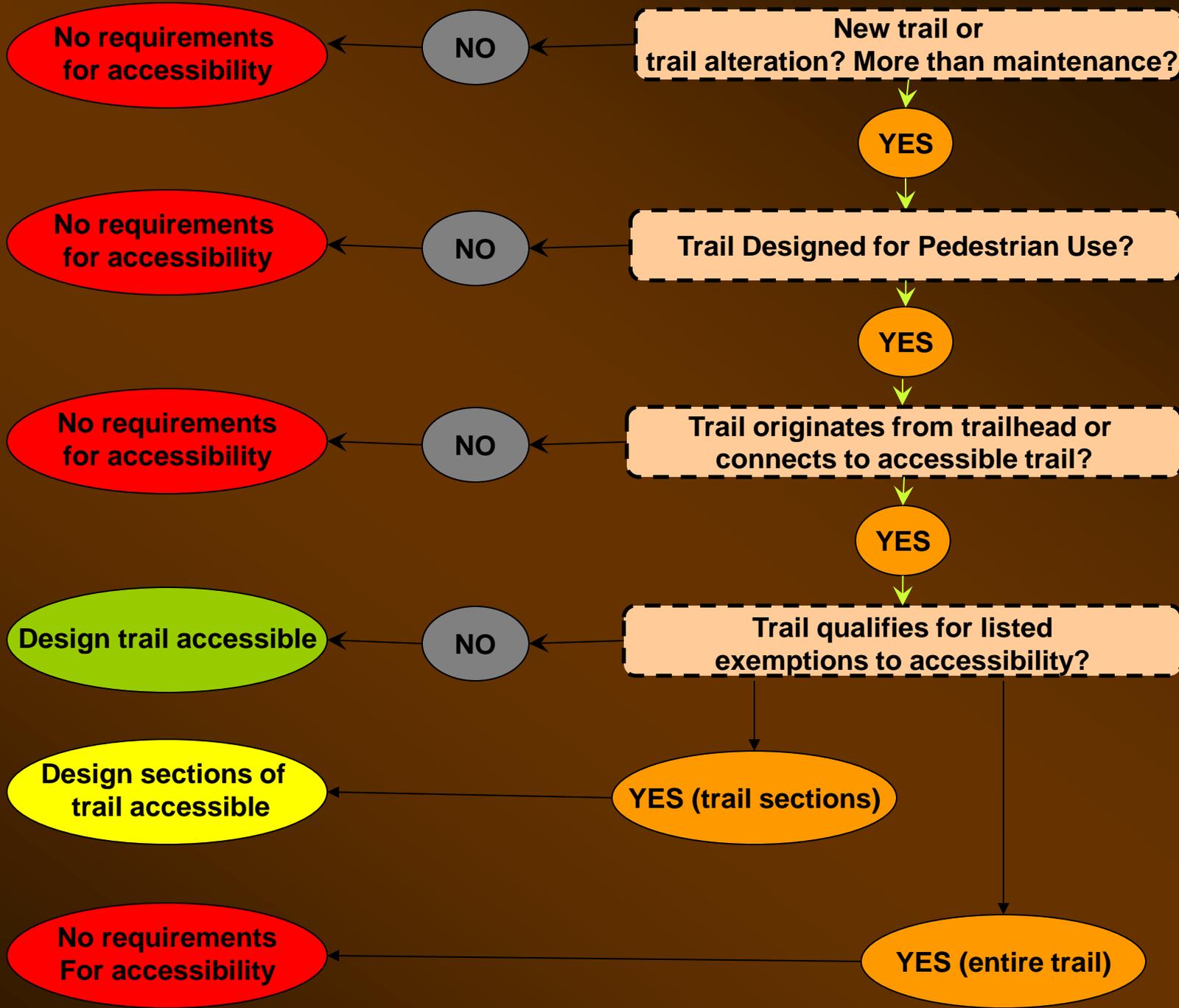
## **Title II of the ADA states:**

**“A public entity may not deny the benefits of its programs, activities and services to individuals with disabilities because its facilities are inaccessible.**

- This could be applied to trails on public lands**

# **Do all trails have to be accessible?**

- Guidelines mandate you follow a process to address accessibility, but do not mandate that all trails be accessible.**



# The Guidelines Only Apply to New Trail Construction and Trail Alterations



# Alterations are defined as:

- Changes in the design, function or purpose of the trail
- Changes in the overall grade, width, or surface of an existing trail or significant reroute of an existing trail



# **Routine Maintenance work is exempt from the guidelines when:**

- **Work is performed to return a trail segment back to the original design standard**

# Brushing, trail clearing, down tree and rock removal...



# Tread maintenance: slough and berm removal, out-sloping and turnpike resurfacing...



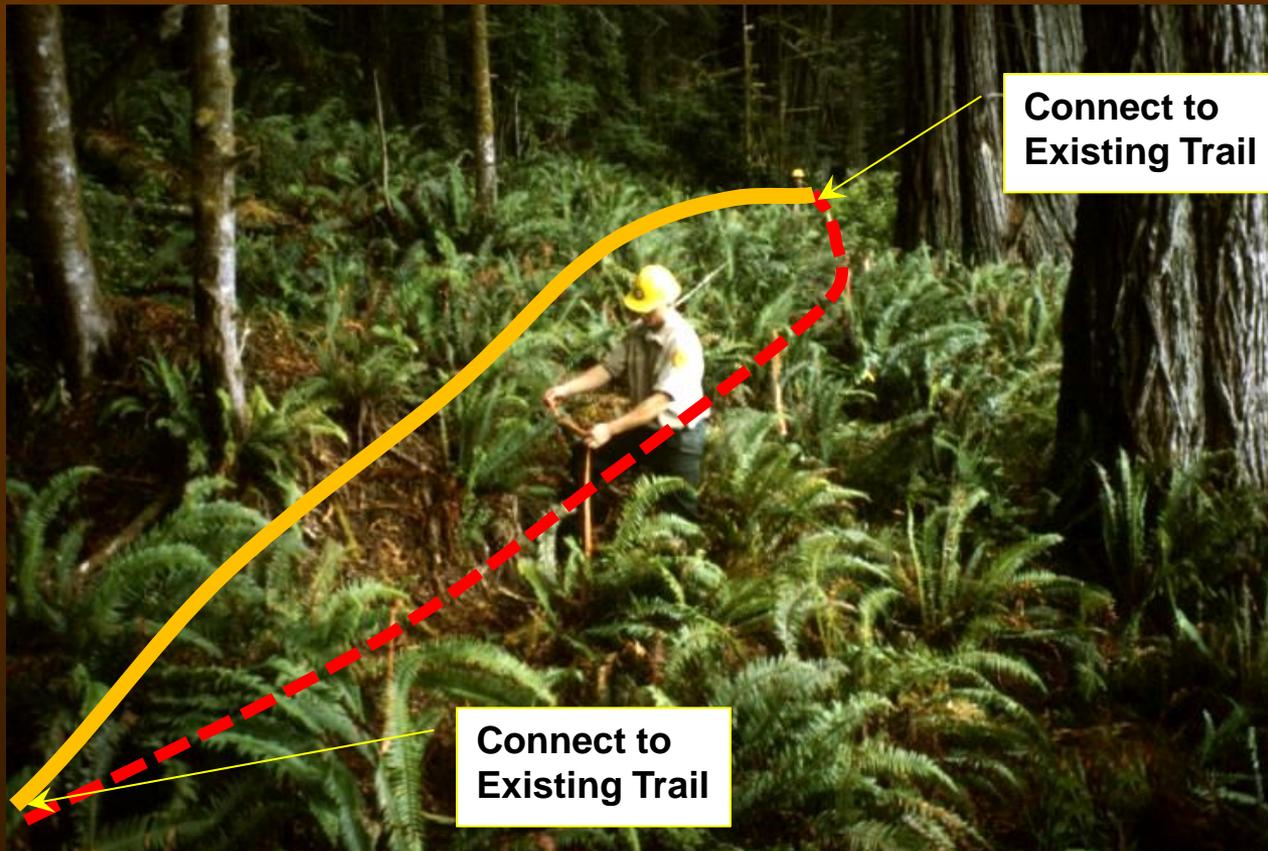
# Replacing trail features, i.e. retaining walls, steps etc...



# Repair or replacement of bridges and boardwalks...



**Minor trail reroutes that do not change the trail's design or purpose are not considered alterations...**



# Maintenance

- **There is an opportunity to improve access during maintenance procedures**
- **Every time a trail receives maintenance, we can improve access**

# Guidelines Apply only to Trails Designed for Pedestrian Use.

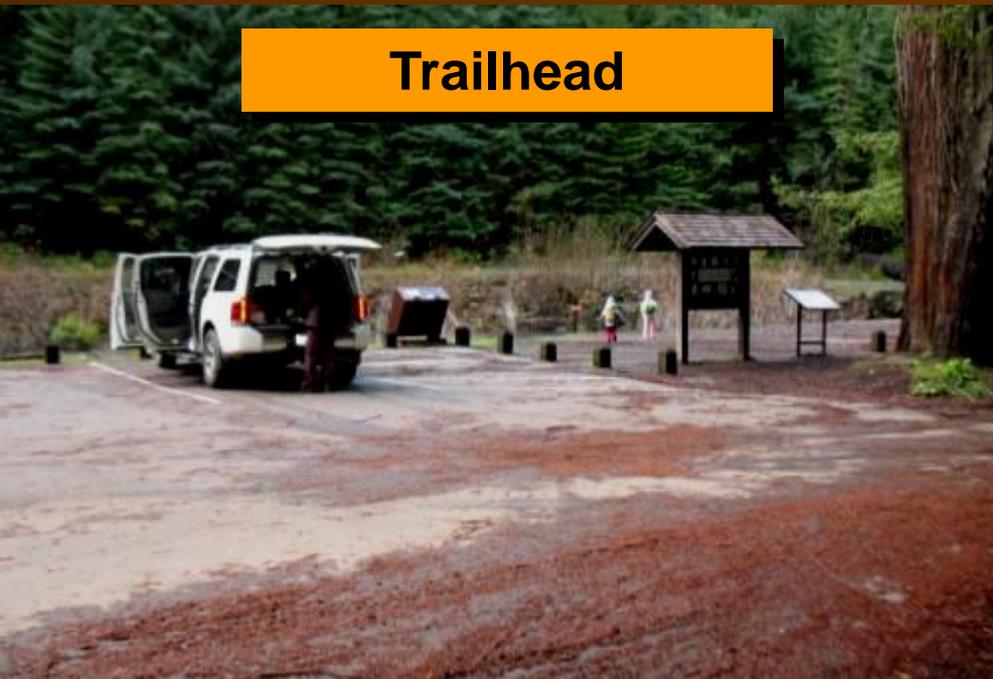
- Trails designated specifically for other uses such as equestrian, mountain bike or off highway vehicle use are exempt from the guidelines.
- Multiuse trails with a pedestrian component are not exempt.



**These guidelines only apply to pedestrian trails or multi-use trails with a pedestrian component that are **connected to a trailhead or an accessible trail**. Trails not connected to either of these facilities are exempt from the guidelines.**

# Trailhead is defined as:

- An outdoor space developed to serve as an access point to a trail.
- A trail junction of two or more trails where no other access point is provided to the trails is not a trailhead.



Trailhead



Not a trailhead

# **Technical Provisions**

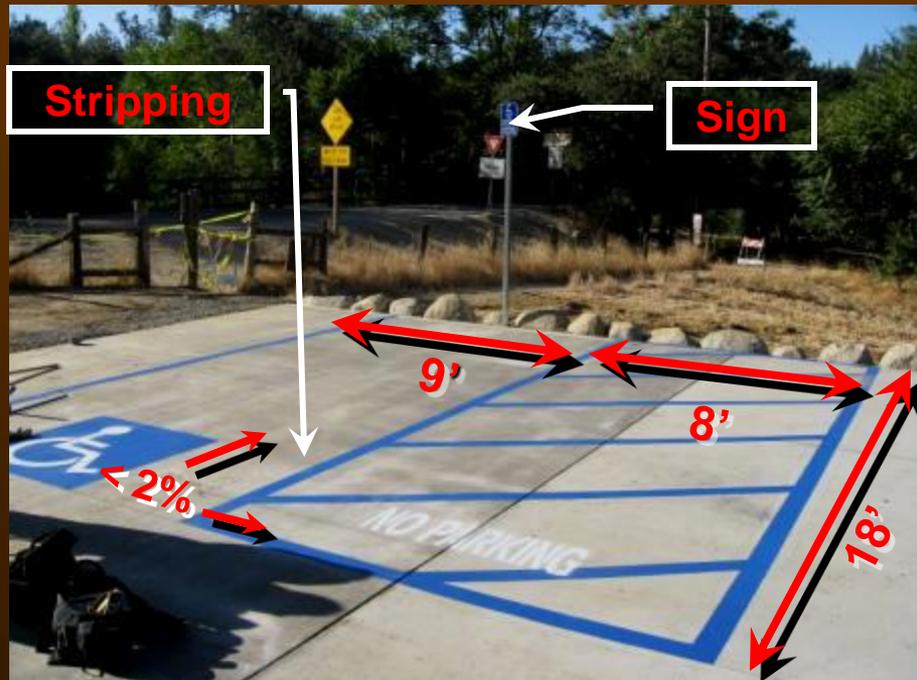
**(Outdoor Developed Area Guidelines for Accessibility)**

# Trailhead Parking

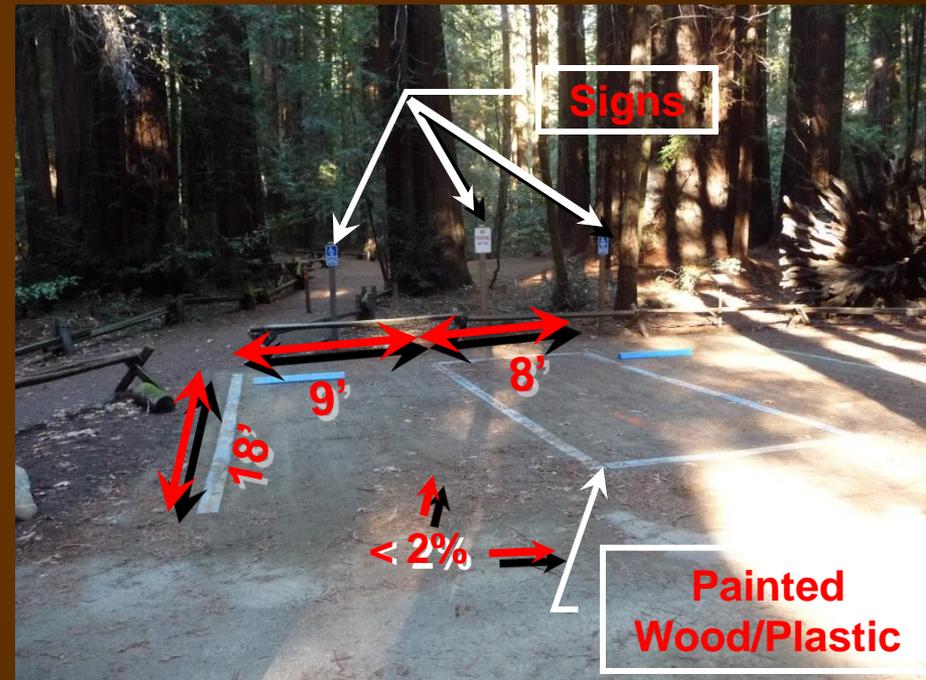
Accessible Parking

Route from Parking to Trail

Accessible Trail



Paved



Non-Paved

Surface firm and stable

Must maintain cross slopes

# Provide Trail Signage Information to include:

Trail signs required regardless of whether the new or altered trail is accessible

• Typical and Maximum Cross Slope  
• Typical and Maximum Running Slope  
• Minimum tread width



New

• Typical and Maximum Running Slope



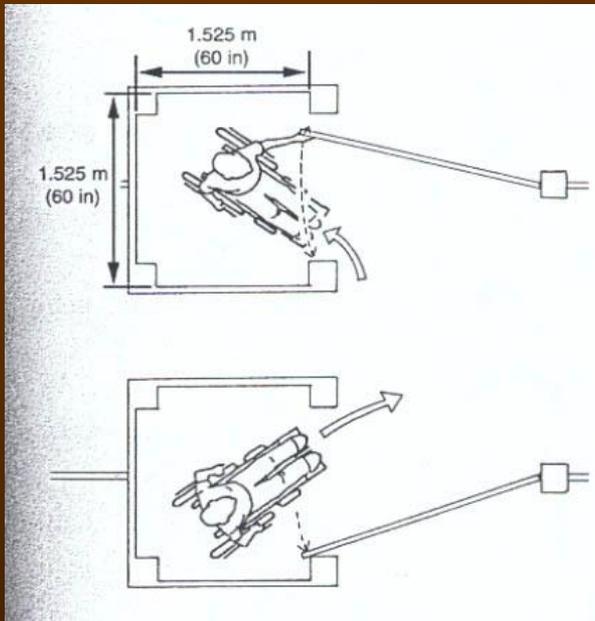
• Typical and Maximum Cross Slope



Old



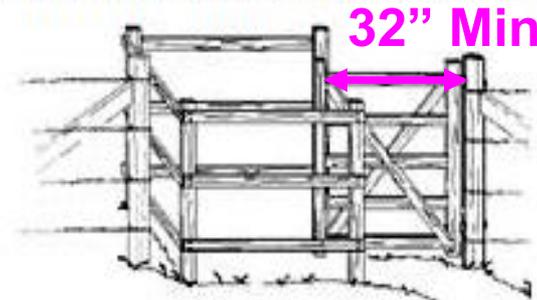
# Gates when installed shall be accessible....



Operate gate handle with a closed fist



Timber Kissing Gate with Wheelchair Accessibility



Chicane for Wheelchair Accessibility



Forest Road Closure Gate with Wheelchair Accessibility



# Facilities located along trails shall meet accessible guidelines for that type of facility.

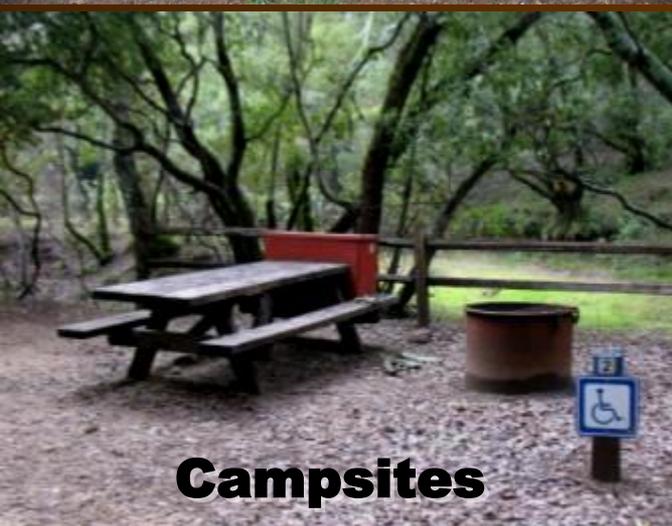


**Picnic facilities**

When outdoor constructed features are provided at trailheads or along the trail at least 20% but not less than one of each feature shall be accessible at each location

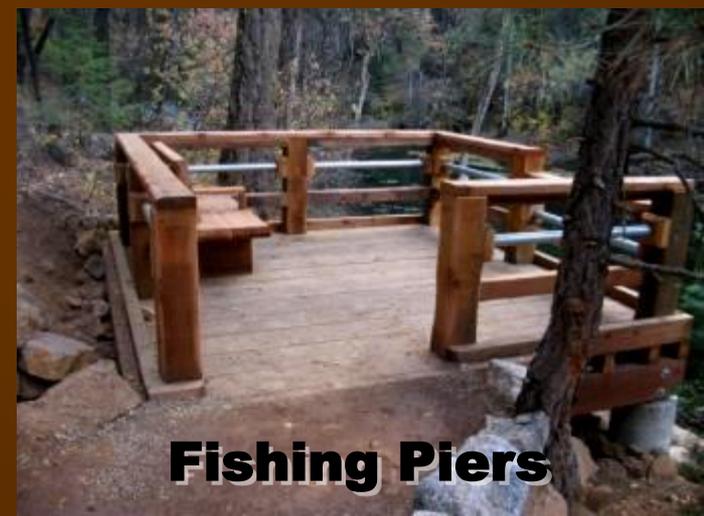


**Overlooks**



**Campsites**

Regardless of whether or not the facility is located along an accessible trail



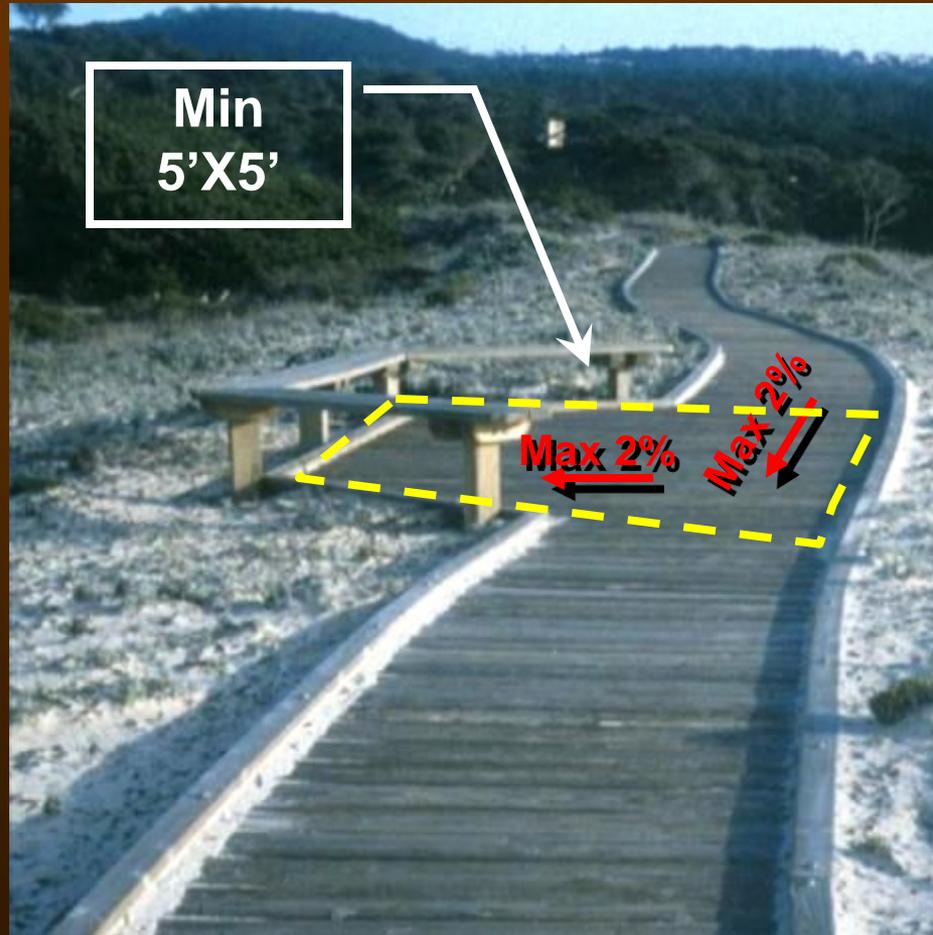
**Fishing Piers**

**Clear  
Tread  
Width**

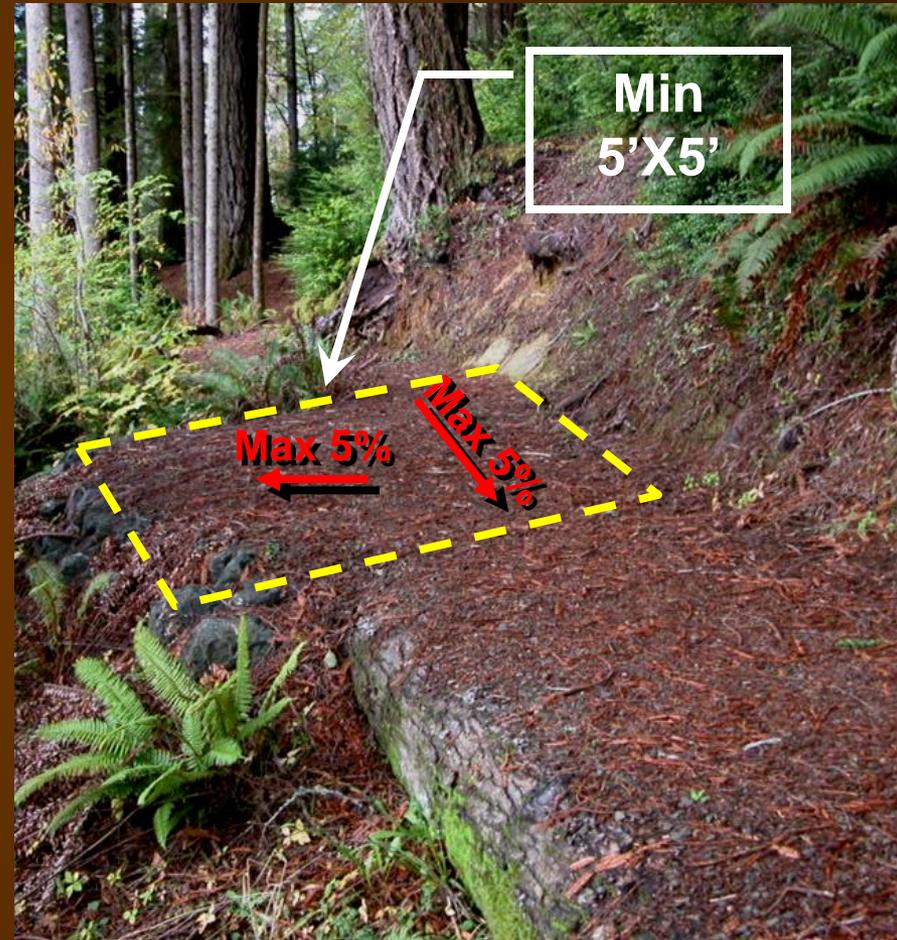


**36"  
Minimum**

# If tread width is less than 60", passing spaces required every 1000'



Concrete, Asphalt and Board Surfaces



Other surfaces

# The Trail Tread Must be Firm And Stable:

- A stable surface remains unchanged by applied force so that when the force is removed the surface returns to its original condition
- A firm surface resists deformation by indentations



# Linear Grade or Running Slope

Shall be:

- **0%-5%** for any distance
- **5.1%-8.3%** for up to 200 ft
- **8.3 %-10%** for up to 30 ft
- **10.1%-12%** for up to 10 ft
- **Slopes >12%** not allowed



# Rest Areas are Required at The Beginning and End of Each Trail Segment in Excess of 5%



Concrete, Asphalt and Board Surfaces

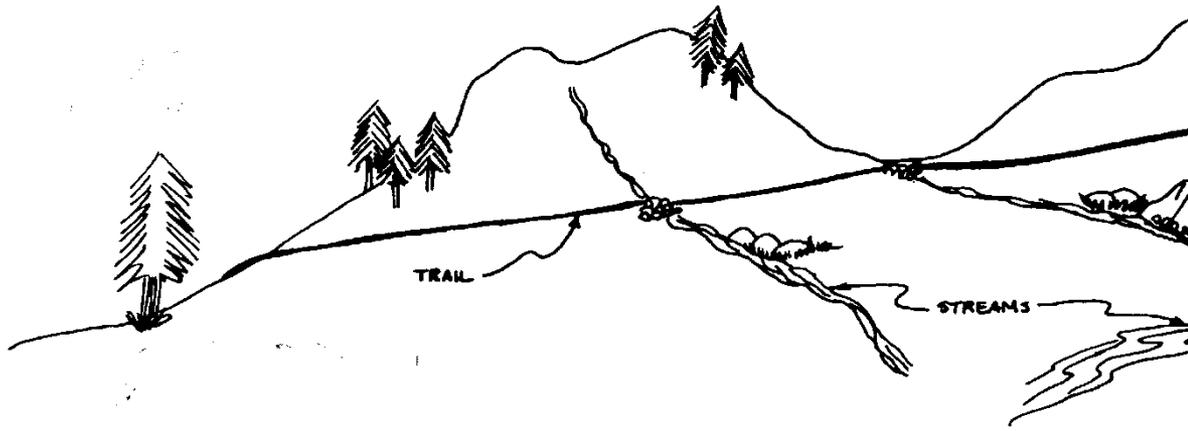
# Rest Areas



Other surfaces



Example



**No more than  
30% of the  
total trail  
length shall  
have a running  
slope steeper  
than 8.33%**

TOPOGRAPHIC PROFILE OF TRAIL LAYOUT

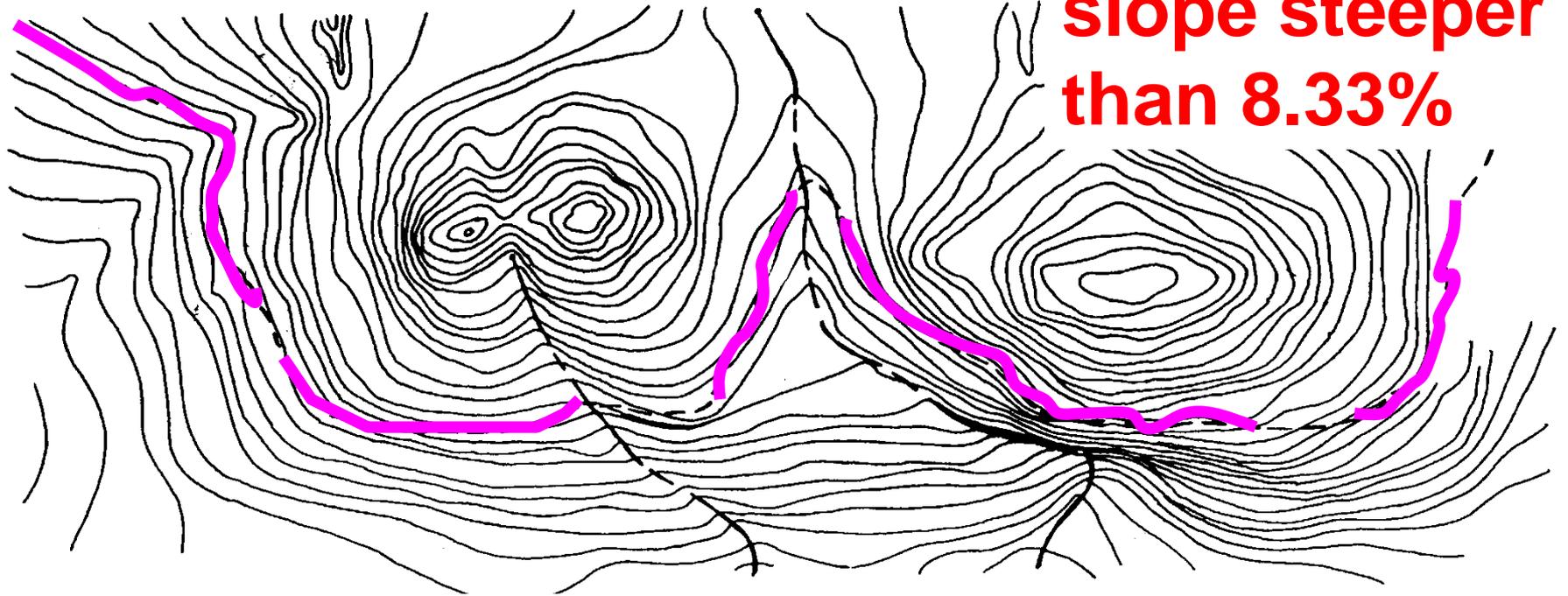


Figure 10.3

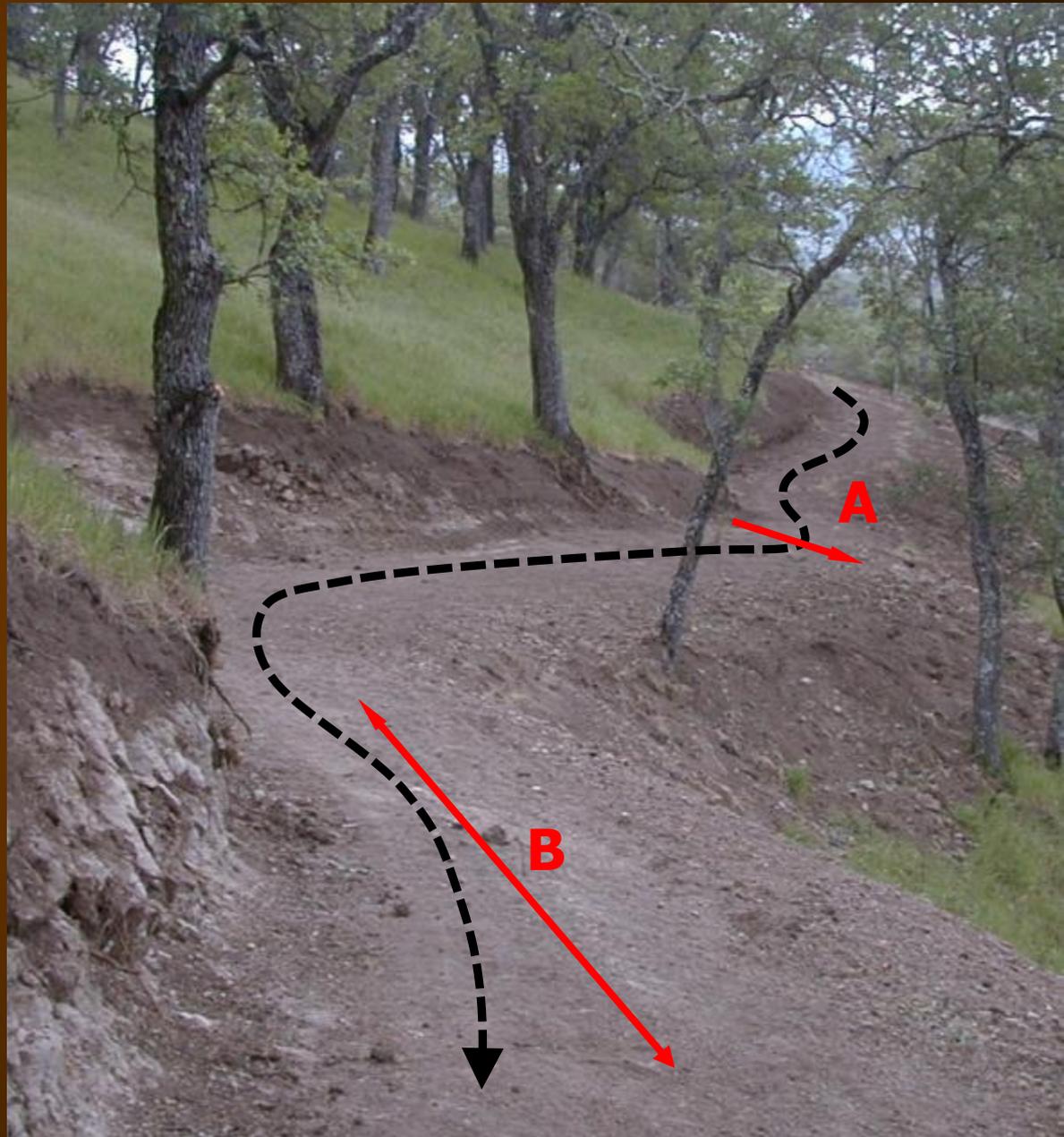
# Grade or Running Slope

# Slopes

Cross Slope “A”

Linear Grade “B”

Are Key  
Elements of  
Accessibility



# Cross Slopes

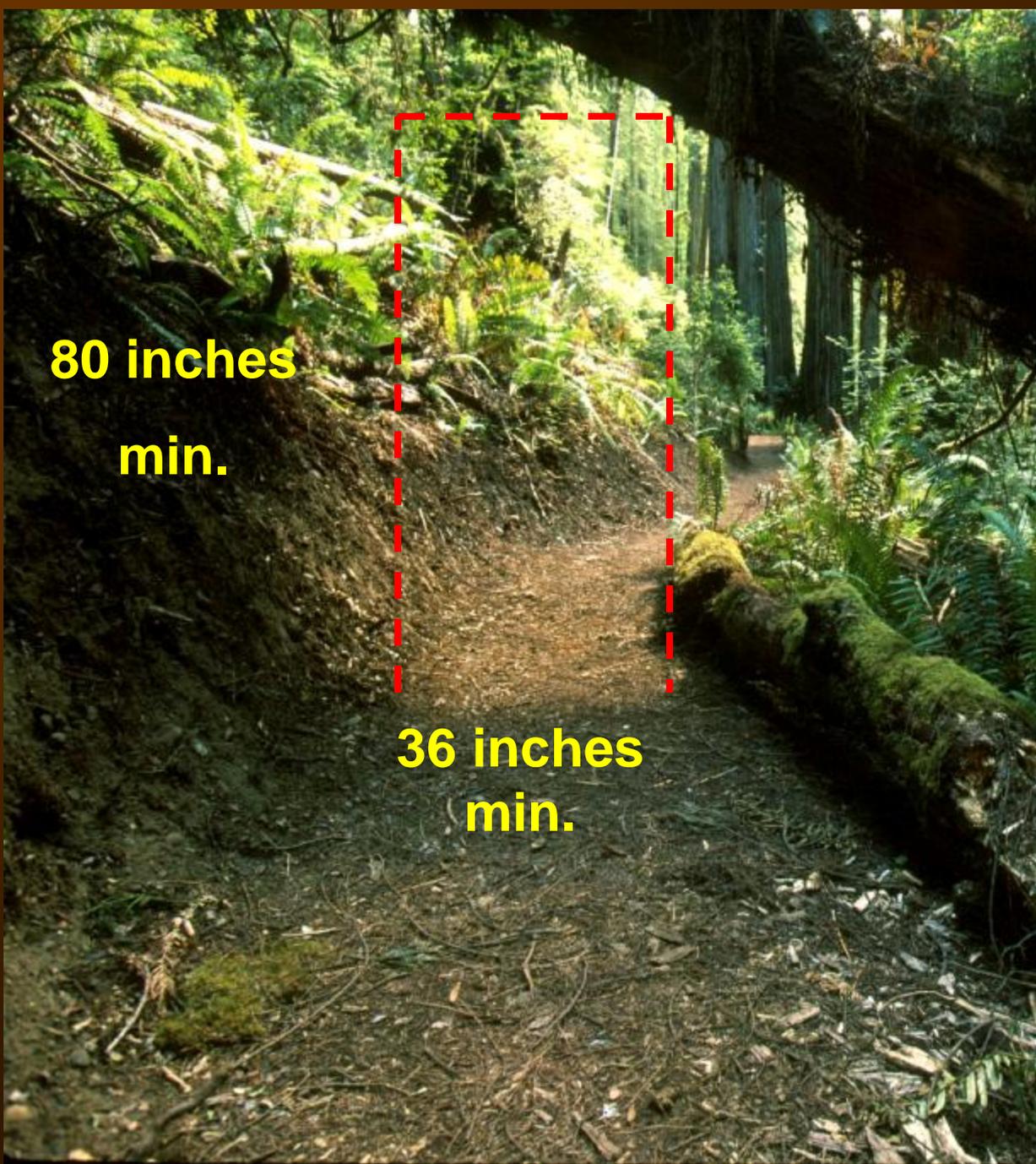
2% Maximum  
on concrete,  
asphalt or  
board  
surfaces



# Cross Slopes

5%  
Maximum  
on other  
surfaces





The area over the trail tread must be clear of protruding objects to a height of 80"

**Tread obstacles  
concrete, asphalt  
& board  
surfaces....**

**Standard 1/2"  
max. height**



**Tread obstacles  
concrete, asphalt  
& board surfaces**

**Standard 1/2"  
max height**

**Minimum  
spacing of 48"  
between  
obstacles  
(advisory)**



# Tread obstacles other surfaces

Standard 2"  
max height

Minimum  
spacing of 48"  
between  
obstacles  
(advisory)



**The Trail Tread Has a  
Maximum Opening of  
 $\frac{1}{2}$ "**

**Openings**

**$\frac{1}{2}$ " Max. When  
Openings are  
Perpendicular  
to Travel**



# Overlooks

Provide unobstructed views between 32"-51" at each distinctive view point.



# Conditions for Exceptions

- There are Four Conditions That When Present Can Act as Exceptions to the “Guidelines”
- When designing and laying out a trail make every attempt to comply with the Guidelines.
- Don't seek out exemptions. Seek out solutions.

# Conditions for Exceptions

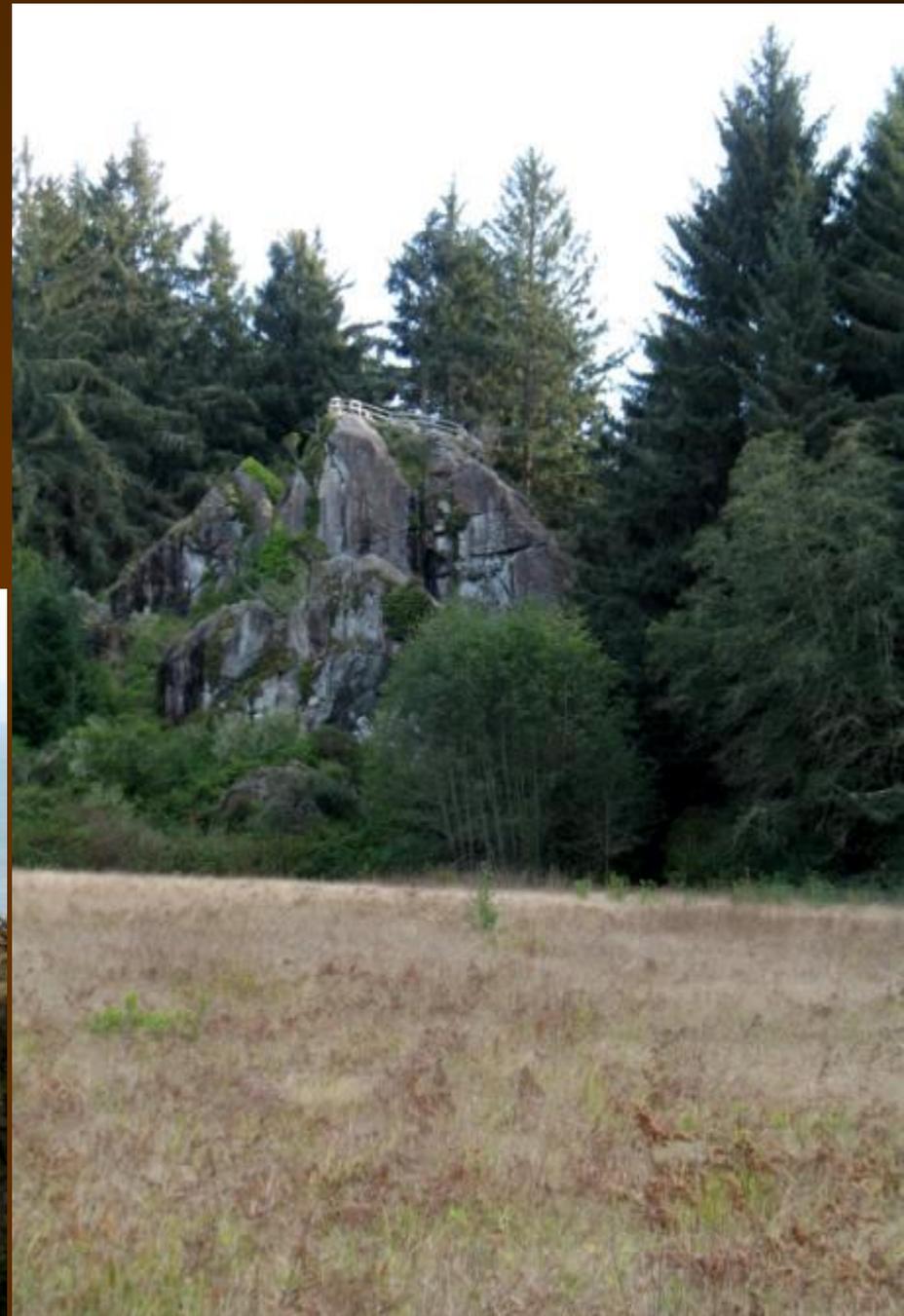
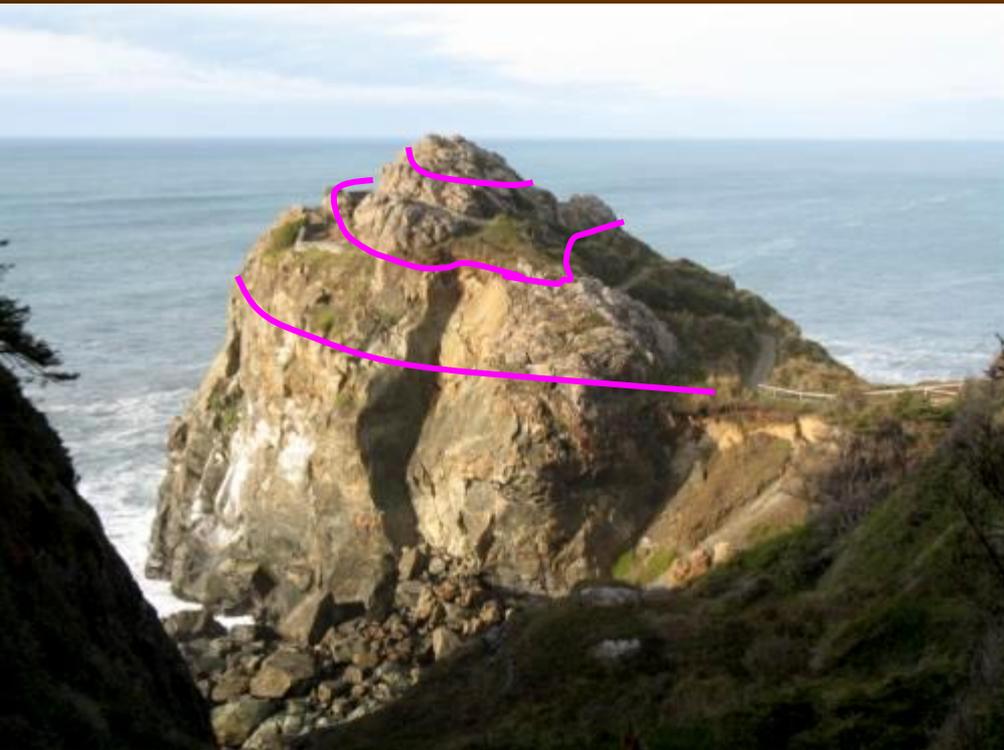
**#1. Where compliance is not feasible due to terrain**

# Steep Topography and No Reroute Options

- Insufficient Land Base
- Unsustainable Design



**Sometimes elevation differences and a limited landform prohibit staying within the linear grade guidelines**



# Conditions for Exceptions

**#2. Where compliance cannot be accomplished with the prevailing construction practices**

# Available Labor Force Lacks Requisite Skills, Knowledge or Equipment



# Conditions for Exceptions

**#3. Where Compliance Would  
Fundamentally Alter the Function or  
Purpose of the Facility or the Setting**

**Alter the  
*Nature* of  
*Setting* or  
*Purpose* of the  
Facility or  
Setting**



# Conditions for Exceptions

- #4 Compliance is precluded by:
- Endangered Species Act
- National Environmental Policy Act (NEPA, CEQA)
- National Historic Preservation Act
- Wilderness Act
- Other Federal, State, or Local Government Laws whose purpose is to preserve natural, historic or cultural resources

# Accessible compliant trail alignments may impact Rare, Threatened or Endangered Plants



# Accessible compliant trail alignments may impact Rare, Threatened or Endangered Animals



# Accessible compliant trail alignments may impact significant archeological resources



Accessible  
compliant trail  
alignments may  
impact significant  
historic resources

- Historic CCC  
steps



# Construction Methods or Materials Prohibited by Regulation or Statute



## Tool & Material Restrictions (Wilderness)



# Construction Methods or Materials Prohibited by Regulation or Statute



Compliance with Accessibility Guidelines is Determined by following sound Planning, Design, Layout & Construction Processes. These efforts are Documented in CEQA/NEPA Environmental

**Document the basis for the determinations, and maintain the documentation with the project records.**

# Conditions for Exceptions

- When a condition is encountered where it is unfeasible to comply with the guidelines due to one or more of the conditional exceptions then those portions of the trail are exempt. However, those portions of the trail where the exceptions do not apply are required to comply with the technical provisions to the maximum extent practicable.

Trailhead

# Fern Falls Trail

1.5 miles long

Steep terrain  
requiring steps

**The remainder of  
the trail must be  
compliant**

Fern Falls



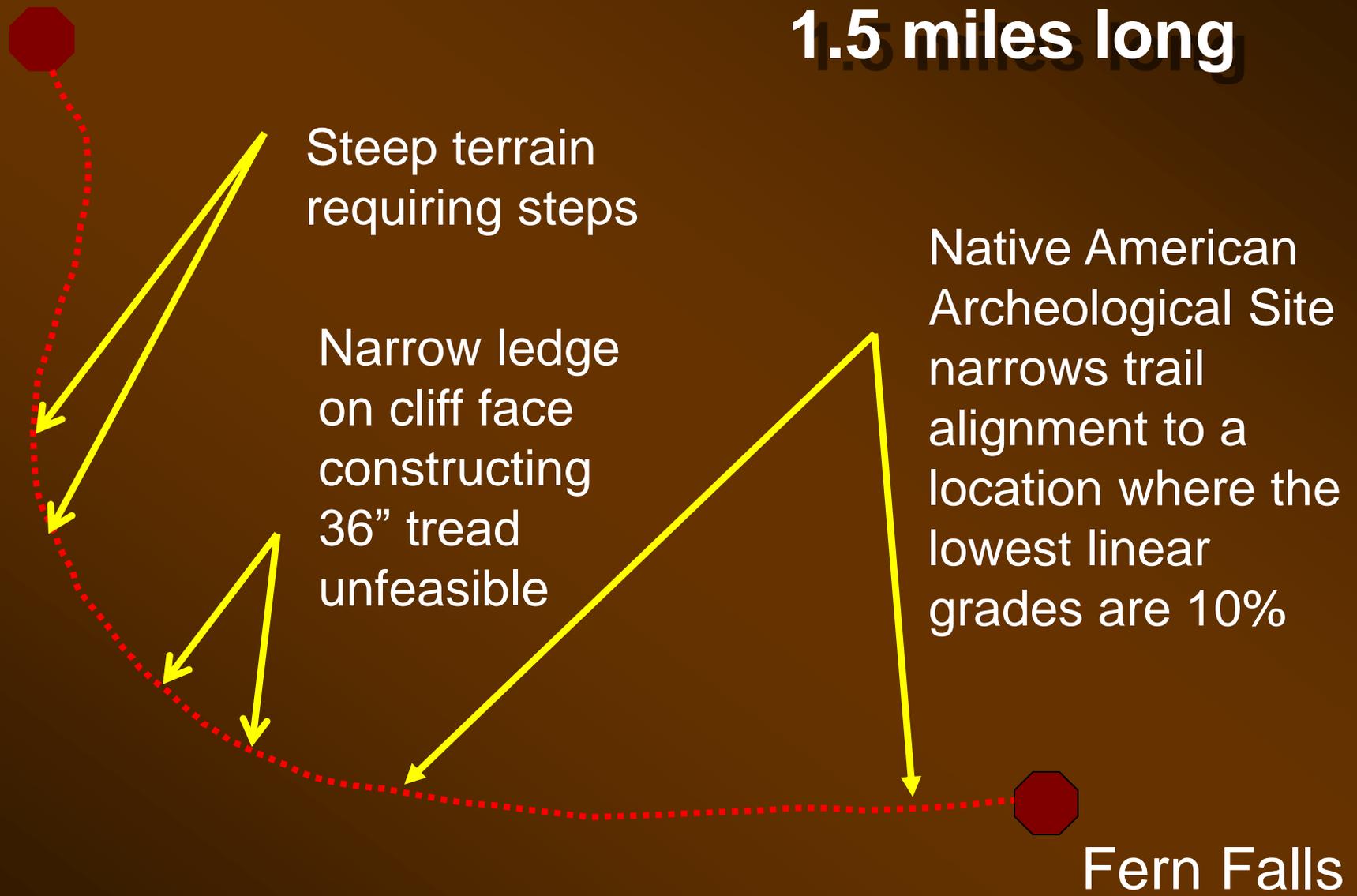
# Conditions for Exceptions

- If the land management agency evaluates the trail alignment and determines that the magnitude of the exceptions make it impracticable for the entire trail to comply with the technical provisions then the entire trail is exempt from the guidelines

Trailhead

# Fern Falls Trail

1.5 miles long

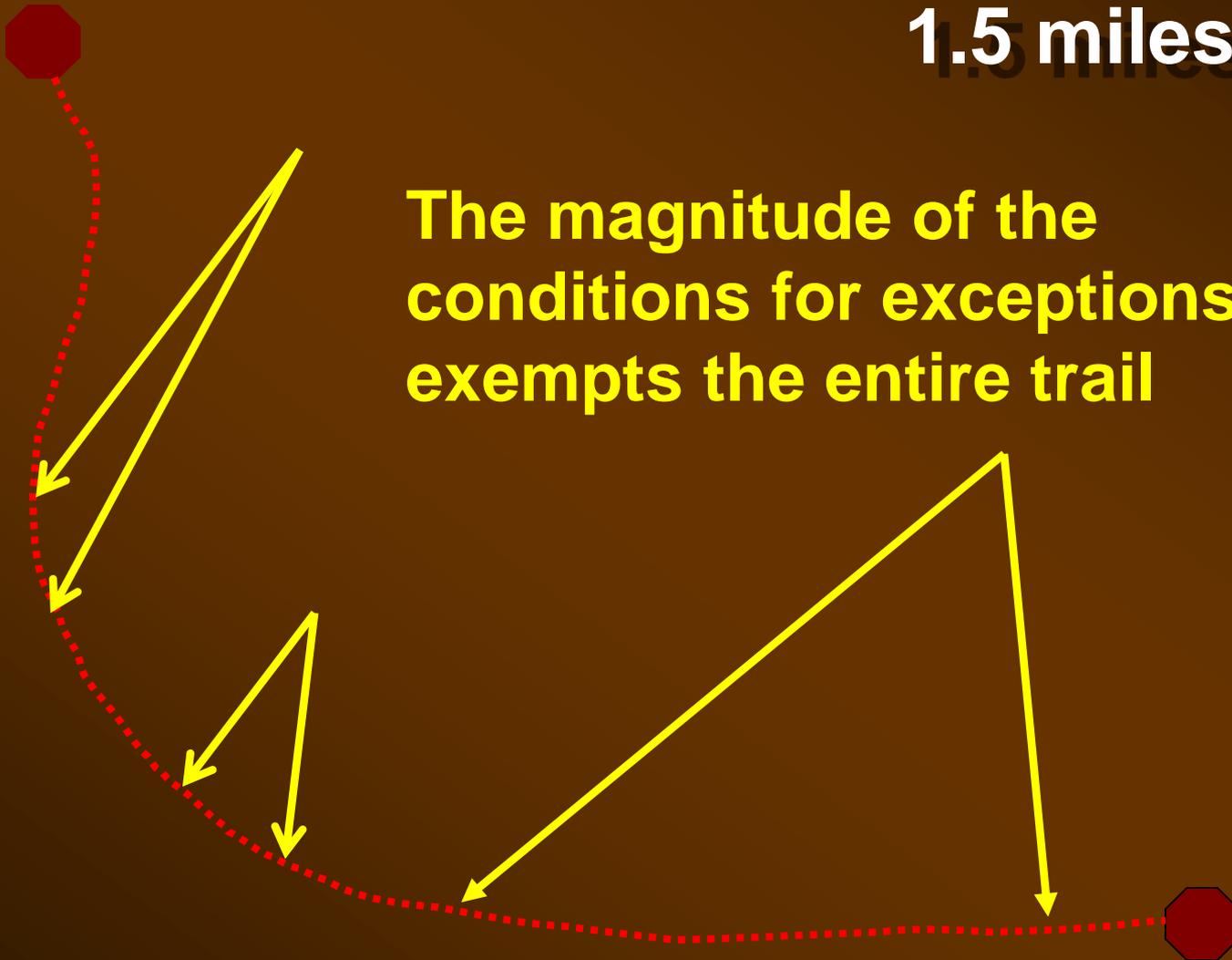


Trailhead

# Fern Falls Trail

1.5 miles long

The magnitude of the conditions for exceptions exempts the entire trail



Fern Falls

# Conditions for Exceptions

- Document the basis for the determinations, and maintain the documentation with the records for the construction or alteration project. The final accessibility guidelines do not prescribe any particular format for the documentation.
- The Access Board plans to monitor situations where the exceptions for trails result in exempting an entire trail. A provision is added that requires Federal agencies to notify the Access Board when an entire trail is exempted. The provision does not require approval or any other action on the part of the Access Board or the Federal agency.

# Lessons Learned:



**Trail  
Surfacing**



**Edge  
Protection**



**Vegetation  
Management**



# Session Objectives Review:

- **Accessible trails are pedestrian routes or multi-use trails with a pedestrian component developed primarily for outdoor recreation purposes**
- **Hikers with disabilities represent a significant portion of our population**
- **Developing accessible trail guidelines has been a long and difficult process**
- **These guidelines apply to new trail construction or trail alterations to pedestrian trails or multi-use trails with a pedestrian component connected to a trailhead or another accessible trail**

# Conclusion:

- **Providing accessibility to the outdoors requires a mind set change**
- **Accessible trails can be designed and constructed without causing significant harm to natural and cultural resources**
- **Accessible designs are typically sustainable designs**
- **Well designed and constructed accessible trails can provide a high quality outdoor recreation experience for all users**