

Q2RRT Trail Design Goals & FS ADA Accessibility Summary

1. Q2RRT Trail Design Goals.....	1
2. FSTAG - Trail Accessibility Guidelines.....	1
2.1. Technical Provisions.....	1
2.2. Exceptions.....	2
2.3. Trailheads.....	2
3. FSORAG - Outdoor Recreation Accessibility Guidelines.....	3
3.1. Technical Provisions (Where they differ from FSTAG).....	3
4. Surface Materials.....	3

1. Q2RRT Trail Design Goals

Q2RRT is a shared use pathway that should try to meet minimum standards:

- Trail Class 4 / 5
 - Tread width: 48"-72"
 - Overhead Clearance: 12'
 - Relatively smooth with infrequent obstacles.
- Corridor width 72"-120"
- Obstacles infrequent and insubstantial
- Meet ADA accessibility as feasible (see FSTAG)

2. FSTAG - Trail Accessibility Guidelines

Applies to trails. For trailhead and other built facilities, see FSORAG.

General note: Avoid the term "accessible trail"... rather use "trail that complies with the trail accessibility guidelines" with information concerning grades, etc., for users to make their own determinations.

2.1. Technical Provisions¹

- Tread width at least 36 inches (915 mm).
- Grades up to 1:20 (5%) can be of any length.

¹ FSTAG 7.4 (p 10)

- No more than 30 percent of the total trail length may exceed a grade of 1:12 (8.33%).
- No grades steeper than 1:8 (12%) allowed.
- Grades between 1:20 (5%) and 1:8 (12%) must have resting intervals at specified distances:
 - Grade 1:20 (5%) to 1:12 (8.33%) max length: 200ft (61m)
 - Grade 1:12 (8.33%) to 1:10 (10%) max length: 30ft (9m)
 - Grade 1:10 (10%) to 1:8 (12%) max length: 10ft (3050mm)
- Resting Intervals:
 - 60 inches long minimum.
- Cross slope:
 - Max 1:20 (5%).
 - Max for paved or elevated trail: 1:48 (2%).
- Passing Spaces (60 inches x 60 inches) required for trails less than 60 inches wide every 1000 feet.
- Obstacles:
 - Natural surface: 2-inch max height
 - Paved: ½ inch max height
- Gaps (between slats, etc) can not exceed ½ inch, and ideally are perpendicular to direction of travel.
- Signs etc. shouldn't protrude into trail tread more than 4 inches.

2.2. Exceptions²

Exceptions to the technical provisions are allowed if trail exceeds certain criteria including:

- Where compliance with the technical provision is not practicable due to terrain, grade, obstacles, etc. (see flow charts³).
- Where compliance with the technical provision would fundamentally alter the function or purpose of the facility, trail, or setting.

2.3. Trailheads

Parking spaces toilets, campsites, etc shall comply with FSORAG and ABAAS standards. Because trailheads are usually accessed by vehicle rather than only by hiking, at least one outdoor recreation access route must connect the following places at trailheads:

- Accessible parking spaces
- Outdoor Recreation Access Routes (ORAR) to start of the trail.

² FSTAG 7.1 (p 4)

³ FSTAG: Overview of FSTAG Implementation Process (p 15)

- Accessible outdoor constructed features (if applicable).

3. FSORAG - Outdoor Recreation Accessibility Guidelines

3.1. Technical Provisions (Where they differ from FSTAG)

- Grade max: 1:10 (10%)
- Resting Intervals:
 - Grade 1:20 (5%) to 1:12 (8.33%) max length: 50ft (15m)
 - Grade 1:12 (8.33%) to 1:10 (10%) max length: 30ft (9m)
- Cross slope max 1:33 (3%).

4. Surface Materials

Surface material should be appropriate to the setting and level of development. A "stable surface" is a trail surface that is not permanently affected by normal weather conditions and that is able to sustain wear and tear produced by normal use between planned maintenance cycles.

Rule of Thumb: Could a person ride a narrow-tired bicycle across the surface easily without making imprints? (Bicycle tires are similar to the large rear wheels of a wheelchair.) Could a folding stroller with small, narrow plastic wheels containing a 3-year-old be pushed easily across the surface without making imprints? (Similar to front wheels of wheelchair).

Usually acceptable firm and stable surfaces:

- Crushed rock (rather than uncrushed gravel)
- Rock with broken faces (rather than rounded rocks)
- A rock mixture containing a full spectrum of sieve sizes, including fine material (rather than a single size)
- Hard rock (rather than soft rock that breaks down easily)
- Rock that passes through a 1/2-inch (13-millimeter) screen (rather than larger rocks)
- Rock material that has been compacted into 3- to 4-inch (75- to 100-millimeter) -thick layers (rather than thicker layers)
- Material that is moist (not soggy) before it is compacted (rather than material that is compacted when it is dry)
- Material that is compacted with a vibrating plate compactor, roller, or by hand tamping (rather than material that is laid loose and compacted by use)