

Trail Resources / Trail Design Guidelines

Includes multiple uses, human powered, equestrian, off-highway / ATV vehicle, snowmobile, waterway and wetland, accessibility guidelines and other
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Trail Design and Construction Guidelines for Human-Powered Hiking, Pedestrian and Multiple Uses:

United States Department of Agriculture Forest Service (USFS) Trail Construction & Maintenance Notebook: 2007 Edition.

https://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232806/toc.cfm

USFS Trail Design Parameters of the United States Department of Agriculture Forest Service:

https://www.fs.fed.us/recreation/programs/trail-management/documents/trailfundamentals/03-TrailDesignParaHandout_Sec508_01-24-17_150dpi.pdf

USFS Trail Fundamentals and Trail Management Objectives. 2011. USFS. [Trail Fundamentals and Trail Management Objectives | US Forest Service \(usda.gov\)](#)

Vermont Town Forest Trail Design Guide

https://vtcommunityforestry.org/sites/default/files/pictures/Town_Forest_Toolkit/Implementation_Pod/trail_design_guide.pdf

National Park Service Resources

[Sustainable Trails \(U.S. National Park Service\) \(nps.gov\)](#)

Appalachian Trail Design, Construction and Maintenance.

[A.T. Design, Construction, and Maintenance - Appalachian Trail Conservancy \(atctrailstore.org\)](#)

Mountain Bike Trails:

Best management practices in mountain bike trail construction using International Mountain Bike Association (IMBA) guidelines, with resources available online:

<http://www.imba.com/resources>

International Mountain Bike Association's (IMBA's) Trail Solutions: IMBA's Guide to Building

Sweet Singletrack: <https://imba.com/resource/trail-solutions>

National Park Service, Guide to Sustainable Mountain Trails: Trail Assessment, Planning, and Design Sketchbook, September 2007.

http://www.nps.gov/dsc/docs/GuideToSustainableMountainTrails_2007.pdf

Cross-Country and Back-Country Ski Trails:

USFS Trail Fundamentals and Trail Management Objectives. 2011. USFS. [Trail Fundamentals and Trail Management Objectives | US Forest Service \(usda.gov\)](#)

Catamount Trail Association Chief Handbook

<http://catamounttrail.org/wp-content/uploads/2016/11/TrailChiefHandbookUpdatedNOV2016.pdf>

Cross-Country Back-Country Ski Trail Etiquette:

<https://catamounttrail.org/ski-the-ct/trail-etiquette/>

Bicycle & Pedestrian Facilities (Paved bike paths, roadways, and facilities):

The guidelines and requirements applicable to multi-use trails, or bicycle and pedestrian facilities in the Vermont Pedestrian and Bicycle Facility Planning and Design Manual or an acceptable equivalent trail standard:

<https://vtrans.vermont.gov/sites/aot/files/highway/documents/ltf/PedestrianandBicycleFacilityDesignManual.pdf>

Vermont Agency of Transportation Bicycle & Pedestrian Program [Bicycle and Pedestrian Program | Agency of Transportation \(vermont.gov\)](#)

AASHTO, Guide for the Development of Bicycle Facilities, 3rd Edition, American Association of State Highway and Transportation Officials, Washington, DC; 888-227-4860, www.aashto.org, 1999.

Complete Streets: A Guide for Vermont Communities: [Complete Streets - A Guide for Vermont Communities \(healthvermont.gov\)](#)

Equestrian Trails:

Equestrian Design Guidebook for Trails, Trailheads and Campgrounds. December 2007. US Department of Agriculture, Forest Service.

http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232816/index.cfm

Recreational Horse Trails in Rural and Wildland Areas: Design, Construction, and Maintenance by [Dr. Gene W. Wood](#), Professor Emeritus, Clemson University

For Wetlands and/or Waterways:

Wetland Trail Design and Construction.

http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/O1232833/toc.cfm

Best Management Practices for Duck Blinds, Fences, Catwalks and Docks. Vermont Wetlands Division

http://www.vtwaterquality.org/wetlands/docs/wl_catwalk_bmp.pdf.

Logical Lasting Launches: Design Guidance for Canoe and Kayak Launches. 2004. National Park Service Rivers, Trails & Conservation Assistance Program.

<http://www.nps.gov/ncrc/programs/rtca/helpfultools/launchguide.pdf>

Developing Water Trails in Iowa. Revised 2010. Iowa DNR.

<http://www.iowadnr.gov/Recreation/CanoeingKayaking/WaterTrailDevelopmentTools/WaterTrailsToolkit.aspx>

USFS Standard Trail Plans & Specifications:

<https://www.fs.fed.us/managing-land/trails/trailmanagement-tools/trailplans>

Off-Highway Vehicle (OHV) Trails:

ATV/OHV Trail planning, design, development, and management guidelines from the National Off-Highway Vehicle Conservation Council: [Online Resource Hub – NOHVCC](#)

Snowmobile Trails:

VAST Trail Policy Manual:

<https://vtvast.org/Forms/2019/Trail%20Policy%20Manual%206-26-18.pdf>

VAST Best Practices for the Development of Snowmobile Trails:

<https://vtvast.org/Forms/2020/Trails%20Manual2019.pdf>

Guidelines for Snowmobile Trail Signing & Placement:

<https://vtvast.org/Forms/2020/Guidelines%20for%20Snowmobile%20Trail%20Signing%20&%20Placement%20FY19.pdf>

International Association of Snowmobile Administrators (IASA) Resources:

<https://www.snowiasa.org/guidelines-resources/>

For Erosion Prevention and Sediment Control:

The State's Low Risk Site Handbook for Erosion Prevention and Sediment Control, found online at:

https://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/StormwaterConstructionDischargePermits/sw_low_risk_site_handbook.pdf

Universal Accessibility and Improving Accessibility:

Universally accessible guidelines found in the Accessibility Guidebook on Outdoor Recreation and Trails, found online at:

<https://www.fs.usda.gov/sites/default/files/Accessibility-Guide-Book.pdf>

Americans with Disabilities Act standards for Recreation Facilities:

<https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-10-recreation-facilities>

Universally accessible guidelines for boating facilities: <https://www.access-board.gov/attachments/article/589/boating.pdf>

For Adaptive Mountain Bike (aMTB) Trails: Trail Information and Rating Systems Adaptive Trails (US based rating and trail reviews) <https://adaptivetrails.com/ratings>

Kootenay Adaptive Sport Association's Adaptive Mountain Biking (aMTB) Trail Standards 2020 with Appendix for Adaptive Mountain Biking (aMTB) Trail Difficulty Rating System: https://kootenayadaptive.com/wp-content/uploads/2021/03/KASA-Adaptive-Standard_FINAL-EDIT2.pdf

Break the Boundary (Based in Australia) <https://breaktheboundary.com>

Other:

A long list of FHWA resources, guidance and manuals can be found at:

http://www.fhwa.dot.gov/environment/recreational_trails/guidance/manuals.cfm

American Trails is the leading national clearinghouse for trail information and provides additional professional resources:

<http://www.americantrails.org/resources/accessible/index.html>

Ontario's Best Trails: Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for All Ontarians

[Microsoft Word - TAOC Draft C 2006-11-07.doc \(recpro.org\)](#)

Trail Planning, Design & Development Guidelines. 2007. MN DNR, Trails & Waterways Div., St. Paul, MN.

https://www.dnr.state.mn.us/publications/trails_waterways/tgmanual/index.html

Arborist Industry Standards:

Certified arborist industry standards:

http://www.tcia.org/TCIA/Build_Your_Business/A300_Standards/A300_Standards.aspx?hkey=96ef3b27-af56-4ada-8670-d848787d1e30&WebsiteKey=b9a41e1f-978d-4585-9172-c411c78c5c14

Safety requirements for arboricultural operations found online at: <https://www.isa-arbor.com/store/product/122/#:~:text=2017%20ANSI%20Z133,General%20safety>

Signage Requirements (street signs for traffic control)

The Manual on Uniform Traffic Control Devices (MUTCD) produced by the Federal Highway Administration (FHWA): [Manual on Uniform Traffic Control Devices \(MUTCD\) - FHWA \(dot.gov\)](#)

For all projects funded through the Federal Recreational Trails Program (RTP):

The requirements applicable to projects funded through the Federal Recreational Trails Program, under Title 23 U.S.C. 206, found online at:

http://www.fhwa.dot.gov/environment/recreational_trails/legislation

For Deconstruction and Disposal of Recreational Structures

Vermont Agency of Natural Resources Department of Environmental Conservation Construction & Demolition Waste Recycling guidelines:

<https://dec.vermont.gov/waste-management/solid/materials-mgmt/construction-waste>