Chapter 5 Trail Signing

5.1 Introduction

This chapter provides standards and guidelines for the use of signs and posters on National Forest System Trails (NFSTs).

Chapter 5A contains typical sign placement and installation information for common trail situations.

Chapter 5B contains standard drawings for common trail signs.

Use trail signage to support the objectives of providing opportunities for experiencing nature while engaging in outdoor recreation...

Use trail signage to support the objectives of providing opportunities for experiencing nature while engaging in outdoor recreation in an improved, aesthetic atmosphere that is consistent with policy (FSH 2309.18) and forest plan direction.

Select and use trail signs, posters, and markers to provide the following on a consistent basis:

- Route identification (number, name, or both)
- Guidance and distance to trail destinations and key points of interest
- Safety features such as snow shelters and resorts
- Route reassurance and confirmation
- User safety: warnings of known hazards
- Notice of restrictions where use control is necessary
- Protection of resources

Additional locations and conditions for which signing may be needed include the following:

- Trail termini
- Junctions with other trails and roads
- Administrative boundaries
- Special management areas
- Lakes, streams, and other features identified on maps, trail guides, or at the trailhead
- Interpretive opportunities

Additional information on trail signage is located at:
Trail Matrix - http://www.fs.fed.us/r3/measures/Inventory/Trails.htm

5.1.1 ROS Guidelines

A key element for developing and managing a trail sign program is the Recreation Opportunity Spectrum (ROS). ROS classes or similar management guidelines have been adopted for each forest plan management area.

ROS offers a framework for understanding the relationships of signing and other management actions in various settings to the kinds of experiences visitors have. For example, hiking in a large, undeveloped area with difficult access and few signs designed to provide only limited information enhances the hiker's feelings of self-reliance with respect to orienteering skills, self-discovery, challenge, and solitude. In contrast, walking easy interpretive trails outside a visitor center with numerous signs and information offers the visitor more comfort, security, opportunities for learning, and social opportunities.

Chapter 5 Trail Signing

ROS guidelines may be found at
http://www.fs.fed.us/recreation/programs/beig/beig6c.htm

Table 5-1 contains specific ROS information for trail signs.

Table 5-1—Recreation Opportunity Spectrum selection guide for materials, colors, and finishes for trail signs, markers, and supports

Item	Primitive	Semiprimitive Nonmotorized	Semiprimitive Motorized	Roaded, natural	Rural/urban
1. Sign materials	Solid wood (or appearing so)	Solid wood (or appearing so)	Solid wood, plywood, limited use of synthetics and metal	Wood, natural fiberglass, limited use of synthetics and metal	Wood, metal, fiberglass, synthetics
Color or finish	Natural or stained; preservative not evident	Natural or stained; preservative not evident	Natural, stained, or painted Retroreflective	Stained or painted Retroreflective	Painted, stained etched or decals Retroreflective
2. Sign support materials	Tree or rustic post	Tree or rustic post	Post or tree; limited use of synthetics	Wood, metal or other synthetic post	Wood, metal or other synthetic post
Color or finish	Natural or stained; preservative not evident	Natural or stained; preservative not evident	Natural, stained, or painted; preservative may be evident	Stained or painted	Painted, stained anodized, etc.
3. Reassurance markers	Cut/painted blazes; routed and scorched, or branded solid wood (or appearing so); limited use of synthetics when a national standard; wood guide poles or rock cairns	Cut/painted blazes; routed and scorched, or branded solid wood (or appearing so); limited use of synthetics when a national standard; wood guide poles or rock cairns	Cut/painted or synthetic blazes; routed and scorched; or branded wood; wood guide poles or rock cairns Retroreflective	Cut/painted or synthetic blazes; wood, metal, and synthetic markers Retroreflective	Painted metal or synthetic Retroreflective

In addition to the ROS, consider the following in determining the proper sign, size, material, placement, and mounting requirements for trail signage:

- Managed uses for the trail
- Scenic integrity objectives
- Travel speed
- Viewing distance
- Clear-zone requirements (Chapter 3A)
- Nighttime visibility needs

5.1.2 Accessibility

Where trails managed for hikers have been evaluated for accessibility, post the following in addition to the standard message with the trail identity and destinations at the beginning of the trail:

- Typical and maximum trail grade
- Typical and maximum tread cross slope
- Minimum clear tread width
- Tread surface type and firmness
- Any major height obstacles (as appropriate)

Forest Service accessibility guidelines, including the Forest Service Trails Accessibility Guidelines and the Forest Service Outdoor Recreation Accessibility Guidelines, can be viewed at:

http://www.fs.fed.us/recreation/programs/accessibility/

5.1.3 Access and Travel Management

Consider the travel management direction for the trail system. Travel management is crucial to help guide and manage visitors from the time they first enter the forest, to the time they reach their destinations and then return to the point of entry. Use appropriate guide signs for the traffic that is encouraged (that is, the actively managed uses of the trail). To the extent possible, accomplish travel management regulation through trail atlas use maps and/or travel management signs at trail termini and junctions. Refer to Chapter 6 for information on access and travel management signage.

5.1.4 Sign Planning

Follow direction in Chapter 2 for developing, monitoring, and maintaining a comprehensive sign plan for each trail or trail complex. Include all signing in trail design and/or rehabilitation planning. Monitor signing effectiveness through visitor contacts and observation of compliance. Provide the minimum signs necessary to adequately and properly guide the user.

5.1.4a Recreational Studies, Engineering Studies, and Engineering Judgment

Recreation plans or studies should be used to determine appropriate signing for nonmotorized and nonmechanized trail systems and for guide signs on all trails.

Recreation studies or reviews should be used to determine appropriate warning and regulatory signs and traffic control devices for motorized trails and bicycle/mountain bike trails **when use is entirely on NFSTs**.

Engineering studies or engineering judgment should be used to determine appropriate warning and regulatory signs and traffic control devices for motorized trails and bicycle/mountain bike trails **when use is on National Forest System Roads (NFSRs).**

Coincident routes that involve NFSRs and NFSTs shall follow the Manual on Uniform Traffic Control Devices (MUTCD) and Forest Service standards for roads.

Refer to Section 3.8 for information on engineering judgments and engineering studies.

5.1.5 Coincident Routes

A coincident route is defined as a single route that is managed as part of two different inventoried routes in the Forest Transportation Atlas. An example is a NFSR that is also a NFST. There are two types of coincident routes:

1. **Concurrent coincident route:** A coincident route on which the uses are simultaneous and must be managed for mixed traffic.
2. **Separate coincident route:** A coincident route on which the uses are not simultaneous but separate, so the route is not managed for mixed traffic. Separate use periods may occur by:
   - Specific times, such as weekday and weekend.
   - Seasons, such as a summer road and a winter snow trail.

Decisions to manage and sign coincident routes involving NFSRs must be based on engineering judgment or an engineering study. Routes shall be signed before concurrent use occurs. Refer to Section 3A.7.3 for information on proper signing of coincident routes involving NFSRs.

Coordinate the signing of coincident routes (road and trail or trail and trail) to avoid confusion between types of users.

Where nonconcurrent seasonal or specific time use is allowed or designated on system roads closed to standard highway vehicles, follow the appropriate trail standards. Remove, fold up, or cover any road signs that are inappropriate or distracting to the trail user. When the roads are open to highway vehicular traffic and closed to the trail traffic, signing shall meet MUTCD and Forest Service standards for roads. Remove, fold up, or cover any trail signs that are inappropriate or distracting to the general driving public. Generally, trail reassurance markers may be left in place.

When use is concurrent (that is, the road is open to highway vehicular traffic and trail traffic at the same time), signing shall meet MUTCD and Forest Service standards for roads. Signs should be appropriate for both user groups. If signed, destinations should be reachable by the road and trail traffic.

Where bicycle use occurs in conjunction with a road or where the bicycle trail is paved, follow the guidelines in the MUTCD, Chapter 9.

For coincident nonmotorized terra trails and snow trails with nonconcurrent seasonal or specific time use, do not seasonally change the snow trail reassurance blazers to the gray/white summer blazers unless necessary for added visual contrast with dark summer backgrounds.

5.1.6 Requirements for Retroreflection

Signs for roads, motorized trails, urban cross-country ski trails, paved bicycle trails, and mountain bike trails as well as other signs intended to be seen at night shall be retroreflective to show the same shape, color, and message by both day and night.

5.1.7 Sign Sizes

Signs should be sized according to the viewing distance and the normal rate of travel or the desired speed of the trail vehicle.

For nonmotorized hiker/pedestrian and pack and saddle trails, 1-inch letters are adequate for most viewing situations.

For motorized and other trail systems such as bicycles, determine appropriate sign sizes through recreational studies or reviews.

For motorized, bicycle, and cross-country ski trails, see Table 5-2 for recommended minimum sizes for signs.

Letter size for interpretative, safety, and other informational signs or posters is dependent upon the distance from which the message is to be viewed. See Chapter 10A for additional information.

Table 5-2—Minimum sign sizes for motorized, bicycle, and cross-country ski trails

Minimum letter size (*inches*)	Minimum size recreation symbol (*inches*)	Minimum size warning sign (*inches*)
2	12	12 x 12

5.1.8 Adopt-a-Trail Signs

Adopt-a-Trail signs may be used as needed to recognize cooperators' help with trails.

5.2 Regulatory and Warning Signs

For on-trail signing needs, use standard regulatory and warning sign messages, shapes, and colors as found in the MUTCD and Chapter 3A. Nonstandard message signs shall be approved by the Washington Office Director of Engineering. Table 5-3 gives specific trail regulatory and warning sign information for the different types of trails.

5.2.1 Regulatory Signs

Provide regulatory information at the trailhead if possible. Stress education approaches over restrictions. Compose regulatory sign messages that minimize prohibitory language. Use a courteous tone and explain restrictions in terms of easily understood resource or user benefits with which the public can relate.

Limit use of on-trail regulatory signs and posters to the minimum needed in order to:

- Ensure consistent protection of the trail and adjacent resources.
- Provide for the safety and enjoyment of the user.
- Provide for enforcement of regulations.

The traffic management strategies of "discourage" and "eliminate" may be preferable to the use of regulations in some cases.

Place regulatory signs at the point of regulation.

Larger signs may be used for increased visibility or strong emphasis when need has been determined.

5.2.2 Warning Signs and Markers

Consistent with the management plan for the trail or area, use warning signs to alert users of known hazards that, relative to the ROS setting, are unusual, unexpected, or not readily apparent to the typical visitor under conditions when use normally occurs. Consider changing trail grade, alignment, or location or taking other measures to mitigate the hazard before using a warning sign. Do not use warning signs and markers in wilderness.

Use adequate advance placement distances for warning signs to allow time for safe user response.

When a need has been determined, use standard object markers according to the following direction and to guidance in Chapter 3 to identify obstructions within or adjacent to the trail:

- Type II object markers are used to mark collision hazards adjacent to the trail, such as drop-offs or culvert ends that coincide with abrupt alignment changes or that are obscured by vegetation.
- Type III object markers are used to mark collision hazards within the trailway, such as bridge railings or abutments narrower than the travel way.

Table 5-3—Regulatory and warning sign requirements

Trail type	Sign face	Minimum size (*inches*)	Color	Shape or sign type
Hiker/pedestrian pack and saddle	Retroreflective not required; use for added emphasis	Warning: 12 x 12	If used, follow MUTCD colors	If used, follow MUTCD shapes
Wilderness	Never retroreflective	Regulatory: limited use at trailhead Warning: do not use	NA NA	NA NA
Cross-country ski, urban setting or night skiing	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Cross-country ski, semi-primitive motorized and nonmotorized ROS	Retroreflective not required; use for added emphasis	Warning: 12 x 12	If used, follow MUTCD colors	If used, follow MUTCD shapes
Bicycle, paved or coincident with roads	Shall be retroreflective	Shall follow MUTCD Table 9B-1	Shall follow MUTCD colors	Shall follow MUTCD shapes
Mountain bike	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
ATV/motorcycle	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Snowmobile	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Water	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes

5.3 Guide Signs

Use guide signs to identify the trail and its directions and for guidance to destinations.

Signs shall be located either at the junction or in advance of the junction such that trail junctions are evident.

Three types of guide signs are used on NFSTs (see Figure 5-1).

TD — Nonmotorized, primitive and wilderness use (routed)

TDW — Wilderness use (optional) (routed)

FRD — Motorized, bicycle and cross-country ski use (retroreflective)

Figure 5-1—Trail directional signs.

5.3.1 Signing Rules for Guide Signs

5.3.1a Nonwilderness Trails

1. Route identification (required)

- Route identification (trail name, number, or both) and the trail direction(s) are required for all system trail legs at all NFST junctions.
  - Example: Great Ridge Tr. No. 458 ➔.
  - Exception: Do not identify trail legs on which traffic is discouraged, prohibited, or against one-way traffic flow.
- Use only names and numbers that appear on the most current Forest Service trail maps.
- Include national trail designations as appropriate.
- The trail route identification and its direction(s) should always be signed first and then followed by the destinations associated with that trail.

2. Destinations

- Required trail destinations
  - Exit signing: At a minimum, show the direction and distance to the trailhead or trail access point at the first junction from the trailhead or access point.
- Optional trail destinations
  - Facilities such as trailheads, campgrounds, picnic areas, winter shelters, rental cabins, and other key points of interest
  - Major geographic or natural features such as lakes, major rivers and streams, passes, falls, and meadows
  - Administrative structures such as guard stations

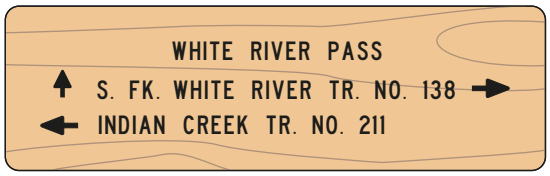
- Sign only those destinations that can be readily accessed by the intended trail user.
- If a destination has been identified on a guide sign, identify it on all subsequent guide signs along the trail until the destination is reached.
- Identify destinations that previously appeared on guide signs so visitors will know they have reached their destinations. The name of the destination or feature, when reached, should be either (1) a single sign panel or (2) a top-centered line when included on a sign containing route and destination information, as shown in Figure 5-2.
- Listing a trail or road as a destination is not desirable. A junction with another trail or road can be a destination and, if signed, should be signed with its appropriate directional arrow and distance (for example: JCT. WORMWOOD TR. NO. 222 5 ➔.)
- Where clearer meaning will result on nonwilderness trails, use standard Federal Recreation Symbols in lieu of words.
- When words are used, complete words are preferable. Abbreviate where message length causes excessive sign length and where the abbreviation cannot be misunderstood. For standard abbreviations, refer to Chapter 1.

3. Distances

Distances shall be used when showing destinations.

- Distances shall be used when showing destinations.
- Show destination mileages for each destination as fractions to the nearest $^1/_4$ or $^1/_2$ mile for destinations up to 3 miles; after 3 miles, show to the nearest mile.
- Only cross-country ski trails are measured in kilometers. Use decimal kilometers up to 1 kilometer (0.1 to 0.9). Distances shall be rounded to the nearest kilometer with no decimal after 1 kilometer.

Feature or destination name only



Feature name and route and destination information

Figure 5-2—Feature identification.

5.3.1b Wilderness Trails

Use signs within wilderness and primitive areas **only** when necessary to protect the resource or to provide for visitor safety.

1. Route Identification

- Identify trail legs at all system trail intersections where necessary. Route identification may include trail name, number, or both, or locally identifiable destination. Include appropriate directional arrow(s).
- When consistent with other trail markings, blazes or cairns may be used in lieu of guide signs to indicate trail direction

2. Destinations

- Show direction arrows only.
- Required trail destinations
  - Exit signing: show the direction to the trailhead or trail access at the first junction from the trailhead or access point.
- Prohibited destination signing
  - Do not sign major destinations at the destination location.
  - Do not sign geographic or natural features.
- Optional trail destinations
  - Guide signs may be used to identify appropriate trail destinations.
  - Administrative structures may have an identification sign.

3. Distances

- **Do not provide mileages**.

4. Prohibited signs

- Do not use standard Federal Recreation Symbol signs.
- Do not use interpretive information or locator signs.

5.3.2 Guide Sign Layout

Limit guide signs to four lines of text for best user comprehension, sign readability, and stability. If more lines are needed, use two sign panels. Do not use more than five lines of text on a sign.

5.3.2a Arrows

Arrow placement on signs is extremely critical to the functionality of the sign. As a general rule, directional arrows should be horizontal or vertical, but at irregular intersections, an oblique arrow may convey a clearer indication of the direction to be followed. In some cases, especially trail junctions, combinations of arrows may be needed.

5.3.2b Arrow and Mileage Sequence

Arrow placement controls the message sequence first, then mileages.

Standard arrow sequence with mileages is as follows:

1. Straight ahead (vertical) arrows, lowest mileage first.
2. Left arrows, lowest mileage first.
3. Right arrows, lowest mileage first.

Arrows pointing straight ahead and to the left shall be to the extreme left of the line of text, while arrows pointing to the right shall be to the extreme right of the text. These principles and guidelines are illustrated in Figure 5-3.

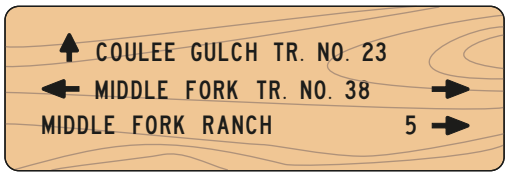


Figure 5-3—Standard arrow placement.

5.3.2c Message Sequence

1. If at a destination to be named, centered name or destination or geographic feature
2. First trail (based on proper arrow sequence) identity and its direction(s)
3. Destinations and mileages for features on or accessed by first trail
4. Second trail (based on proper arrow sequence) identity and its direction(s) (if applicable)
5. Destinations and mileages for features on or accessed by second trail
6. Additional trails and destinations as needed.

Text lines and arrows for route identities and destinations are to be left-justified first and then right-justified if possible. (See Figure 5-4).

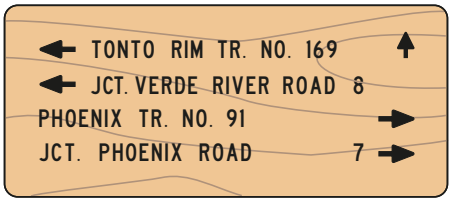


Figure 5-4—Typical sign layout.

5.3.2d Special Cases

Trail signs require that the trail route identification and its direction(s) be signed first; the destinations associated with that trail are then listed under the trail identification. L junctions require combinations of arrows that are an exception to the standard arrow placement rules.

The sign shown in Figure 5-5 is for a trail that has a right L junction. In order to represent the trail and the destinations on that trail properly, the destination to the right must be signed before signing the next trail leg and any destination to the left.

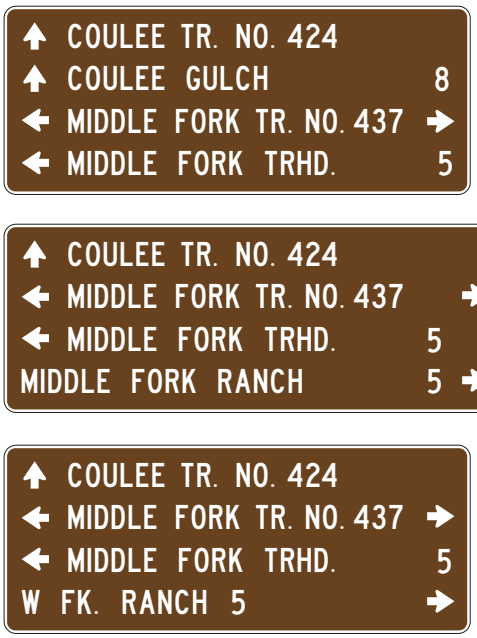
Figure 5-5—Trail sign with a right L junction.

The sign shown in Figure 5-6 is for a trail that has a left L junction. In order to represent the trail and the destinations on that trail properly, the vertical arrow must be placed on the right and, if signing a straight ahead destination, the up arrow will be next under the left arrow in its proper position on the left of the sign.

Figure 5-6—Trail sign with a left L junction.

5.3.2e Mileage Layout

Mileage is not to be aligned in the same column as the trail numbers. There are three options for displaying mileage on signs (Figure 5-7):



1. Mileage for up and left directions may be aligned in the same column with the right arrows (right justified).
2. All mileage may be placed in a single column before the arrows on the right.
3. Mileage may be entered with the text line.

Figure 5-7—Three options for mileage display.

5.4 Sign Specifications

Select the sign material, color, size, and shape that best suit the trail purpose and the ROS class (see Table 5-1) or management prescription for the area. Signs shall conform to the specifications in Chapter 14.

Table 5-4 gives specific trail guide sign information for the different types of trails. Text requirements are consistent with series established by the American Standards Association (ASA).

Table 5-4—Guide sign requirements

Trail type	Sign face	Capital ASA Series C text	Color	Shape
Hiker/pedestrian pack and saddle	Typically routed	1 inch, routed	Unfinished wood with scorched or blackened legend or WPC material	TD
Wilderness	Routed only	1 inch, routed	May be unfinished wood with scorched or blackened legend	TD or TDW
Cross-country ski urban setting or night skiing	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
Cross-country ski semi-primitive motorized and nonmotorized ROS	May be routed	1 inch, routed	May be unfinished wood with scorched or blackened legend or WPC material	TD
Bicycle paved or coincident with roads	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
Mountain bike	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
ATV/motorcycle	Shall be retroreflective	Capital ASA Series C, 2 inches, minimum	White legend on brown background	FRD
Snowmobile	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
Water	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD

5.5 Junction Identity Signs

In a trail system where junctions are designated with numbers or letters, a junction identity sign may be used. Signs should use the word “JCT” followed by the number or letter of the junction.

With junction-numbered or junction-lettered systems, it is especially important to ensure that trail maps or locator map signs are available either at the trailhead or along the trail.

Use junction signs in conjunction with trail guide signs at the trail junction. Mount above or below the guide sign on the same post (see Figure 5-8). Table 5-5 gives specific trail junction identity sign information for the different types of trails.

Table 5-5—Junction identity sign requirements

Trail type	Sign face	Capital ASA Series C Text	Color	Shape
Hiker/pedestrian pack and saddle	Typically routed	1 inch, routed	Unfinished wood with scorched or blackened legend or WPC material	Rectangle
Wilderness	Routed only	1 inch, routed	May be unfinished wood, scorched or blackened legend or WPC material	TD or TDW
Cross-country ski urban setting or night skiing	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
Cross-country ski semi-primitive motorized and nonmotorized ROS	May be routed	1 inch, routed	May be unfinished wood with scorched or blackened legend or WPC material	TD
Bicycle paved or coincident with roads	Shall be retroreflective	3 inches, minimum	White legend on brown background	FRD
Mountain bike	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD
ATV/motorcycle	Shall be Retroreflective	2 inches, minimum	White legend on brown background	FRD
Snowmobile	Shall be retroreflective	2 inches, minimum	Black legend on orange background	9 in. x12 in diamond TB-2
			White legend on brown background	FRD
Water	Shall be retroreflective	2 inches, minimum	White legend on brown background	FRD

5.6 Locator Map Signs

Use of self-locator map signs is often appropriate at trail junction to provide an extra measure of orientation and security. At a minimum, the map should clearly display the trail system and the location of the user when at that particular map with a “You Are Here” arrow.

Depending on the type of trail system, other information may be needed such as groomed or ungroomed conditions. See Figure 5-8.

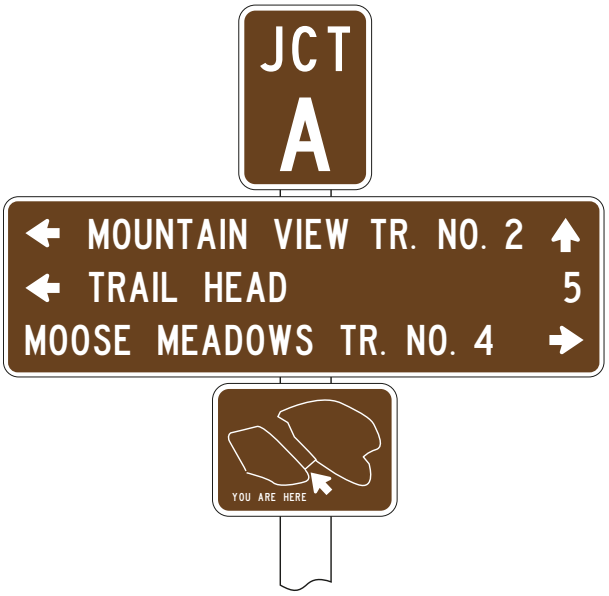


Figure 5-8—Typical trail guide sign installation.

5.7 Trail and Road Crossings

When trails cross each other or cross roads, there is a potential for accidents.

When roads and trails cross, MUTCD and Forest Service standards shall be followed. Determine the need for intersection control on the trail and/or the need for crossing signs on the road by engineering judgment or in an engineering study.

When trails cross each other, determine appropriate signing by a recreation study or review. Consider the road or trail characteristics, sight distance, stopping distance, traffic types, volumes, speeds, and applicable state traffic laws. Refer to Chapter 3A.

Crossing signs shall be located at the best possible sight and stopping distance for both the road user and the trail user. Signs should be placed 10-15 feet from the road shoulder or far enough back to be outside of snow berms when roads or trails are plowed.

Road crossings and their related signing shall be coordinated with the governing road agency.

5.7.1 Regulatory and Warning Signs

Advance crossing or crossing warning signs (MUTCD Vehicular Traffic and Nonvehicular Signs Series W11) may be used to warn the users driving on roads of trail traffic crossing the road.

Regulatory and warning signs may also be needed on the trail to regulate or control the trail users before they cross the road.

While STOP and YIELD signs are generally not needed where trails cross each other, evaluate each crossing on a site by site basis.

Refer to Figure 5A-1 for typical placement or regulatory and warning signs on the road and on the trail.

5.7.2 Guide Signs

Retroreflective road guide signs may be used to identify trail access points where trails cross a road or terminate on a road and where trailhead parking facilities have not been developed. Use Federal Recreation Symbols as appropriate to mark crossings. Refer to Figure 5A-2 for typical placement of road guide signs.

Install road guide signs only where traffic safety will not be compromised by slowing or stopping vehicles and where there are appropriate turnouts within sight distance for safe parking. Guide signs shall not be installed where there are no safe approaches and turnouts.

Refer to Chapter 3C for sizing, placement, and mounting. As a general rule, road signs should be placed before the intersection at a sufficient distance that has been determined by engineering judgment or study that considers speed, sight distance, traffic volume and type, season of use, and the location of other possible conflicting intersections.

5.8 Reassurance Markers

Reassurance markers reconfirm the identity, location, or route of the trail. Use appropriate standard route markers, blazers, cairns, or guide poles where needed to reassure travelers that they are on the trail. Do not use where the trail is self-defining under conditions in which use normally occurs, or if excluded under the trail management plan.

Do not place access and travel management information on reassurance markers. Access and travel management information needs to be displayed separately with sufficient detail to show dates or reasons.

From the following markers, select those that are most appropriate for the trail type and ROS Class (see Table 5-1):

1. Route markers

   A route marker provides the minimum information necessary to reconfirm the trail identity. It should include the route number or letter, any specific logos such as National Trail markers, and the appropriate trail blazer. Use of Simplified Difficulty Level symbols is optional. Do not place agency or cooperator logos on the route marker. See Figure 5-9 for priority of placement of the different symbols on route markers.

   Use the minimum number of route markers along the trail, at road crossings, past trail junctions, and at termini as needed to reconfirm the identity of the trail.

   Where vandalism is a problem, it may be advisable to place the route marker a short distance along the trail, beyond and out of sight of trail beginnings and crossings of roads or other trails.

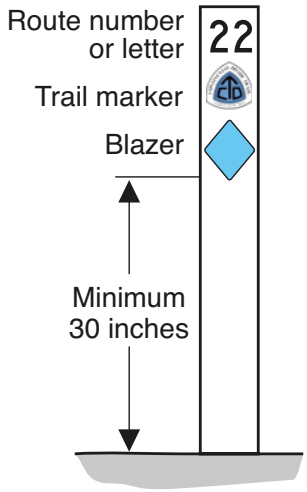


Figure 5-9—Priority and placement of reassurance markers.

a) Route number or letter

Place the route identification number or letter at the top of post. The following methods may be used:

- Number or letter routed and scorched, blackened, or branded into wood post or sign
- Number or letter on wood, aluminum, plastic, or fiberglass substrate, screw mounted to wood post
- Number or letter decal affixed to fiberglass post

On metal markers, white numbers or letters on brown background are recommended.

b) Trail markers

When the trail has a designated logo (such as a National Scenic Trail, National Recreation Trail, or National Historic Trail) place the appropriate marker beneath the route identification number or letter. Follow ROS guidelines and the management direction established for the trail. Table 5-6 gives specific trail marker information for the different types of trails.

Table 5-6—Reassurance marker requirements

Trail type	Sign face	Blazer	Color	Size (*inches*)
Hiker/pedestrian pack and saddle	NA	TB-1 Cut/painted/branded	Grey/white Natural	5 x 7
Wilderness	NA	Cut or branded Do not use plastic	Natural	
Cross-country ski urban setting or night skiing	Shall be retroreflective	TB-1 TB-2 with arrow	Blue	5 x 7 9 x 12
Cross-country ski semi-primitive motorized and nonmotorized ROS	May be retroreflective	TB-1 TB-2 with arrow	Blue	5 x 7 9 x 12
Bicycle paved or coincident with roads	Shall be retroreflective	Federal Recreational Symbol RL-090	White legend on brown background	Minimum 12 square inches
Mountain bike	Shall be retroreflective	Federal Recreational Symbol RL-090	White legend on brown background	Minimum 3 square inches
ATV/motorcycle	Shall be retroreflective	Federal Recreational Symbol RL-150 or RL-170	White legend on brown background	Minimum 3 square inches
Snowmobile	Shall be retroreflective	TB-1 TB-2 with arrow	Orange or Fluorescent orange	5 x 7 9 x 12
Water	Shall be retroreflective	Federal Recreational Symbol RW-020	White legend on brown background	Minimum 3 square inches

c) Difficulty levels

Difficulty levels are based on a national set of characteristics and standards, not on a comparison of trials against one another. See FSH 2309.18 for policy concerning use and application of difficulty levels.

Use of signage or maps that indicate national trail difficulty standards is necessary to ensure consistency. Consider site-specific signage or map information that indicates the physical trail standards and maintenance and/or grooming schedules.

Simplified difficulty symbol: This symbol (Figure 5-10) indicates a generic degree of difficulty. It is not site specific and often does not present the trail user with enough information.

DO NOT use on hiking/pedestrian trails to indicate a degree of difficulty based on accessibility.

Signing difficulty levels with simplified ddifficulty symbols is optional. If these symbols are used, they shall be used in accordance with the national trail standards found in the Forest Service Handbook exhibits for trail activities. When using a difficulty symbol, identify the difficulty level of the trail at the information board, beginning of the trail, and where significant changes occur in trail segments. Simplified difficulty symbols are shown in Figure 5-10.

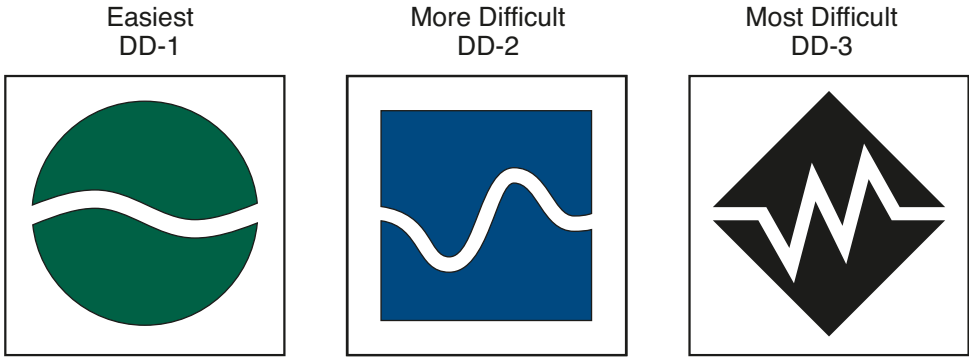


Figure 5-10—Simplified difficulty symbols.

2. Blazers

If the trail is well defined, very few blazer reassurance markers are needed except for reassurance at openings and road or trail crossings. For trails that are not well defined, blazers may need to be intervisible during conditions under which use normally occurs.

When blazer reassurance markers are used, place them on posts or trees at least 5 feet above tread level or expected snow level for winter trails. Blazers are generally placed on the right side of the trail but should be placed on the side that provides the most visibility and clearest indication of direction.

Use only cut, painted, or branded/scorched blazes in wilderness. Limit painted blazes only to those wilderness trails identified in the National Trails System Act, and associated intersecting trails where determined necessary.

a) Colored diamonds

Use the small TB-1 (5 by 7 inches) metal or plastic diamond marker (see Figure 5-11), retroreflective (for night use) or nonreflective when called for in the trail management plan. Do not use for wilderness trails.

Mount on trees or, where properly positioned trees are not available, on posts. When diamond markers are to be mounted on trees, aluminum nails should be used. Leave a portion of the shank exposed to allow for tree growth.

An arrow may be placed in the center of the TB-2 (9 by 12 inches; see Figure 5-11) to indicate the trail direction for additional visibility in open areas or to indicate continuing direction or an unusual change in direction that does not present a hazard. Do not use these markers in lieu of curve, turn, or other warning signs where conditions require a standard warning sign as determined by recreational studies or review or engineering study or engineering judgment. Use this method sparingly and not in place of a standard blazer.

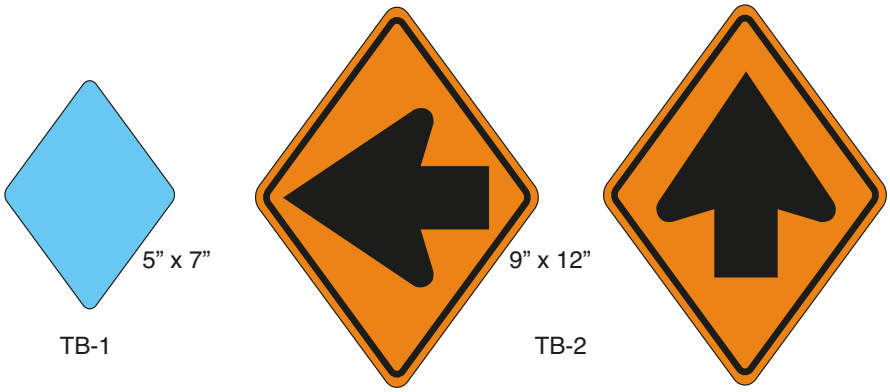


Figure 5-11—Colored diamond blazers.

b) Cut blazes

Use cut blazes when called for in the trail management plan. Cut blazing is the preferred reassurance marking system in wilderness areas where trees are available. Improper blazes cannot be corrected. Cut blazes carefully and cleanly to conform closely to the dimensions shown in Figure 5-12.

c) Painted blazes

Use painted blazes on trees or rocks only where specified in the trail management plan. Do not paint without using a template and paint carefully to specified dimensions and color.

d) Branded or routed and scorched blazes

Either branded blazes or routed and scorched blazes may be used where specified in the trail management plan.

Field branding may be used on the face of the guide sign or on a flattened portion of the tree or post that supports the guide sign.

The blaze may also be branded or routed and scorched in a shop on the following:

- The face of the guide sign
- A 6- by 10-inch piece of wood the same substrate as the guide sign
- The support post for the guide sign

Directional arrows may be branded or routed and scorched below the blaze indicating the direction(s) of the trail.

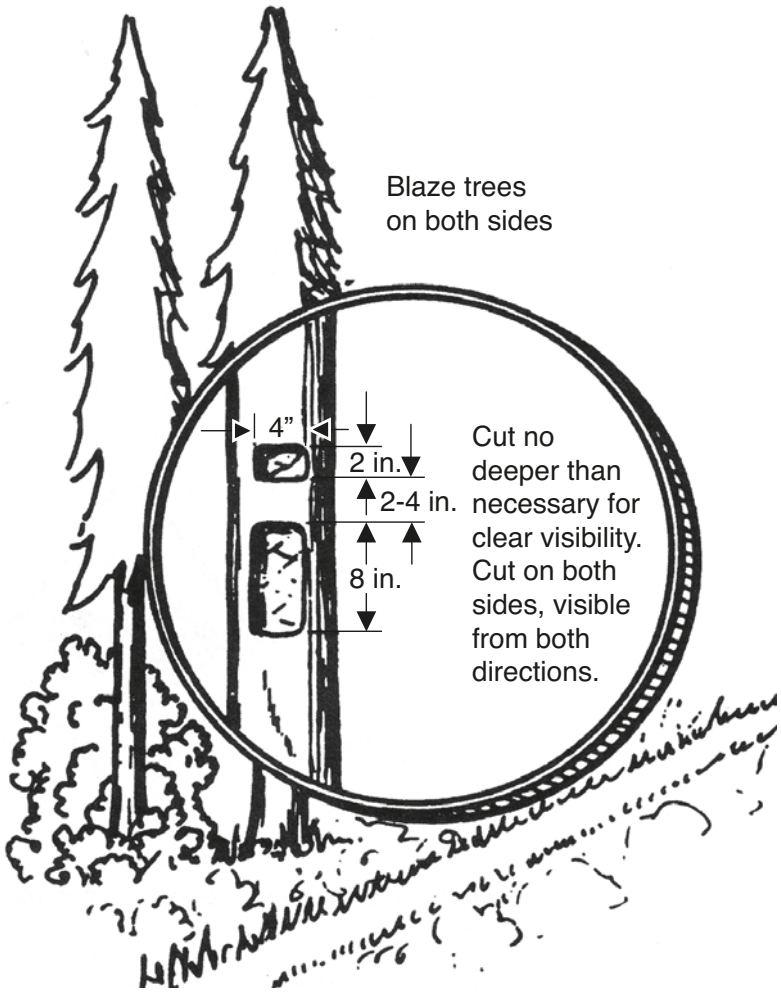


Figure 5-12—Cut blazes.

e) Federal recreational symbols

Minimum 3-inch Federal recreation symbols such as RL-170 or RL-090, may be used as reassurance blazers. Symbols shall be mounted to posts such as flexible fiberglass. National recreation trail symbols shall not be used as reassurance markers.

3. Cairns

Rock cairns may be used through rocky, treeless areas as necessary for guidance and safety. Base spacing on visibility conditions expected during adverse weather.

See Figure 5-13 for typical details. Select and fit rocks for stability against displacement. Construct cairns so they are high enough to appear above vegetation. Where practicable, set guide poles or posts in cairns where needed for winter travel guidance.

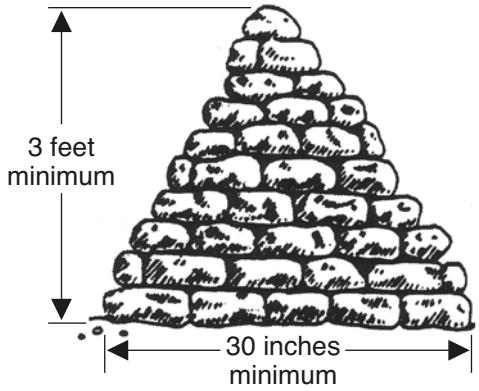


Figure 5-13—Rock cairn.

4. Guide poles

Guide poles may be used to delineate the trail when the location is not obvious. When used, set poles at the maximum inter-visible distances required for guidance through treeless areas such as meadows and muskeg areas. Select natural pole materials to harmonize with the environment except where the management plan requires increased visibility (for example, snowmobile and cross-country ski trails). To increase visibility, consider painting the poles (color to match the color of the plastic blazer), mounting plastic trail blazers on both sides of the poles, or wrapping retroreflective tape around the pole.

Wooden guide poles shall have a minimum diameter of 4 inches and a minimum height of 6 feet above ground or snow level. Where ground conditions make the setting of wood poles impractical, the use of metal or other materials is justified.

5.9 Congressionally Designated Trails

Congressionally designated trail signage must be consistent among administrative units. Coordinate area and trail management plans as appropriate. Standardize trail signing within areas that include more than one administrative unit.

5.9.1 National Trail Systems

National trails "provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas, and historic resources of the Nation…" (National Trails System Act of 1968).

5.9.1a National Recreation Trails

National recreation trails are designated under Regional Forester authority to provide for a variety of outdoor recreation uses in or reasonably accessible to urban areas.

5.9.1b National Scenic Trails

National scenic trails are trails designated by Congress to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which they pass.

5.9.1c National Historic Trails

National historic trails are designated by Congress and follow as closely as possible and practicable the original trails or routes of travel of national historic significance. They identify and protect the historic route and its historic remnants and artifacts for public use and enjoyment.

5.9.2 National Trail System Signing

Signing of trails in the National Trail System requires special emphasis to denote their uniqueness and special qualities. Identify national scenic, historic, and recreation trails with the appropriate national marker, such as those shown in Figure 5-14. Sign according to the management objective of each trail system. The policy and criteria for signing and posting national trails are the same as for other National Forest System Lands, with the exceptions noted in the following sections.

Figure 5-14—Examples of national trail markers.

5.9.2.1 Trailheads

At trailheads or developed recreation sites associated with the trail, mount the 9-inch national trail marker on the base of the site identification sign or on a separate post in a prominent location.

5.9.2.2 Road Crossings

To indicate the trail crossing a road, use the 9-inch marker along NFSRs when speeds are 35 miles per hour or lower. Use the 18-inch marker on roads when speeds are 40 miles per hour and higher. Mount the markers 1 inch below the guide sign identifying the trail or its destinations. If no other identification sign exists, the marker should be mounted on a separate post to identify the trail. Its use is intended only as a symbol associated with the trail. The words are not intended to be read by motorists at highway speeds.

Larger signs may be produced and used for special situations on high speed highways. Maintain the same shape and colors when ordering special size signs.

5.9.2.3 Guide Signs

When the trail guide sign is located on the national trail, identify the national trail designation by use of reassurance markers mounted below the guide sign. Use the 3 $^{1}/_{2}$-inch national trail marker to identify the trail. Do not mount the national trail marker directly on guide signs.

When the trail guide sign is not located on the national trail but is located at a trailhead or junction when the national trail is identified on a guide sign as a destination, use the directional arrow, the abbreviation JCT, the name of the trail, and the distance to the junction. Do not abbreviate the trail name. Refer to Figure 5A-18.

5.9.2.3 Reassurance Markers

See Section 5.12. Depending on the management plan for the national trail, reassurance markers for national trails will consist of one of the following:

- Paint mark
- 3 $^{1}/_{2}$-inch plastic or metal blazer with the official logo
- Branded or routed official logo

To keep travelers on course, use reassurance markers at all intersections and locations where the trail location could be uncertain. **Do not use the national logo marker off the national trail**.

Reassurance markers may be placed on a separate post or tree, or just below a guide sign on the same support if mounted below a guide sign. They shall be mounted or branded directly on the post or tree supporting the sign, or on a separate board (approximately 6 by 10 inches) that is fastened to the support. Directional arrows below the marker shall indicate the direction of the trail. When mounted along on a post or tree, reassurance markers shall be about 5 feet above the level of the tread.

In wilderness, use the brand or routed marker; do not use the plastic or metal marker. Use the branded or routed logo to identify the trail at junctions and other decision points, and as needed to protect wilderness resources. Do not use it as a general reassurance marker along the remainder of the trail within the wilderness.

5.10 Summary of Standards and Guidelines by Trail Type

Tables 5-7 through 5-13 contain summaries of the standards and guidelines for each type of trail. Each chart is for a specific trail type.

Table 5-7—Hiker/pedestrian pack and saddle trails

		Sign Requirements		
Sign type	**Sign face**	**Minimum size (*inches*)**	**Color**	**Shape or sign type**
Regulatory and warning	Retroreflective not required, consider using for added emphasis	Warning: 12 x 12	If used, follow MUTCD colors	If used, follow MUTCD shapes
Guide	Typically routed	Text: Capital ASA Series C, 1 inch routed	Unfinished wood scorched or blackened legend or WPC material	TD
Junction identity	Typically routed	Text: Capital ASA Series C, 1 inch routed	Natural wood scorched or blackened legend	TD
Reassurance markers	Non retroreflective	5 x 7	Grey or white	TB-1 plastic blazer
	Cut, painted, branded blazers, logo brands, rock cairns, natural guide poles	NA	NA	NA
	Sign support and placement requirements			
Reassurance marker supports	Posts or trees			
Minimum mounting height, trail tread to bottom of sign	5 feet			
Minimum lateral distance, edge of trail tread to nearest edge of sign	3 feet clearance for pack stock			
Remarks:				

Table 5-8—Wilderness trails

	Sign Requirements		
Sign type	**Sign face**	**Text**	**Color**	**Shape or sign type**
Regulatory	Non-retroreflective	NA	NA	NA
Warning	NA	NA	NA	NA
Guide	Routed only	Text: Capital ASA Series C, 1 inch, routed	Unfinished wood with scorched or blackened legend	TD or TDW
Junction identity	Routed only	Text: Capital ASA Series C, 1 inch, routed	Unfinished wood with scorched or blackened legend	TD
Reassurance markers	Cut, painted or branded blazers, logo brands, rock cairns, natural guide poles	NA	NA	NA
	Sign support and placement requirements			
Reassurance marker supports	Posts or trees			
Minimum mounting height trail tread to bottom of sign	5 feet			
Minimum lateral distance edge of trail tread to nearest edge of sign	3 feet clearance for pack stock			

Remarks:

- Specific on-site signs necessary for resource protection or visitor management may be used if no other means of protection or communication is suitable.
- Generally, do not use reassurance markers except in locations where the trail is difficult to locate.
- Use only cut, painted, or branded/scorched blazes in wilderness. Limit painted blazes only to those wilderness trails identified in the National Trails System Act, and associated intersecting trails where determined necessary.
- Do not use Federal Recreation Symbols or plastic and metal national trail markers
- Guide poles should be left natural with no markers, blazers, or tape.
- Do not use warning signs.
- Limit use of regulatory signs at the trailhead

Table 5-9—Cross-country ski trails, urban or night skiing

		Sign Requirements		
Sign type	**Sign face**	**Minimum size (*inches*)**	**Color**	**Shape or sign type**
Regulatory and warning	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Reassurance markers	Shall be retroreflective	5 x 7 9 x 12	Blue Blue	TB-1 TB-2 with arrow
	Sign support and placement requirements			
Reassurance marker supports		Posts or trees		
Minimum mounting height, trail tread to bottom of sign		40 inches above average maximum snow level. No more than 84 inches above current snow level.		
Minimum lateral distance, edge of trail tread to bottom of sign		2 to 6 feet		

Remarks:

- Destinations on guide signs should emphasize safety features such as shelters and warming huts.
- Distances are measured in kilometers (km). Use decimal kilometers up to 1 kilometer (0.1-0.9). Round to the nearest kilometer with no decimal after 1 kilometer.
- Use locator maps on systems with multiple loops or where the trail system is complicated and can be confusing.
- Guide poles may be painted blue or have a blue TB-1 blazer mounted on both sides.
- Use the blue TB-1 on ski trails that serve hikers during the off season. Do not change the blazers to gray/white unless needed for added visibility during the summer.
- Where wide variation in snow accumulations can be expected, periodic resetting may be necessary.
- In areas with heavy summer use, consider mounting the signs on posts that can be removed from a stationary base. This will improve aesthetics and reduce vandalism and sign maintenance.
- When trees are used for mounting signs, prune limbs well above the sign so limbs will not droop with the weight of snow and obscure the sign.

Table 5-10—Cross-country ski trails, semi-primitive motor or nonmotorized ROS

		Sign Requirements		
Sign type	**Sign face**	**Minimum size (*inches*)**	**Color**	**Shape or sign type**
Regulatory and warning	Retroreflective not required, consider using for added emphasis	Warning: 12 x 12	If used, follow MUTCD colors	If used, follow MUTCD shapes
Guide	May be routed	Text: Capital ASA, series C 1 inch, routed	May be unfinished wood with scorched or blackened legend or WPC material	TD
Junction identity	May be routed	Text: Capital ASA, series C 1 inch, routed	May be unfinished wood with scorched or blackened legend or WPC material	TD
Reassurance markers	May be retroreflective	5 x 7 9 x 12	Blue Blue	TB-1 TB-2 with arrow
	Sign support and placement requirements			
Reassurance marker supports		Posts or trees		
Minimum mounting height, trail tread to bottom of sign		40 inches above average maximum snow level. No more than 84 inches above current snow level.		
Minimum lateral distance, edge of trail tread to bottom of sign		2 to 6 feet		

Remarks:

- Destinations on guide signs should emphasize safety features such as shelters and warming huts.
- Distances are measured in kilometers (km). Use decimal kilometers up to 1 kilometer (0.1-0.9). Round to the nearest kilometer with no decimal after 1 kilometer.
- Use locator maps on systems with multiple loops or where the trail system is complicated and can be confusing.
- Guide poles may be painted blue or have a blue TB-1 blazer mounted on both sides.
- Use the blue TB-1 on ski trails that serve hikers during the off season. Do not change the blazers to gray/white unless needed for added visibility during the summer.
- Where wide variation in snow accumulations can be expected, periodic resetting may be necessary.
- In areas with heavy summer use, consider mounting the signs on posts that can be removed from a stationary base. This will improve aesthetics and reduce vandalism and sign maintenance.
- When trees are used for mounting signs, prune limbs well above the sign so limbs will not droop with the weight of snow and obscure the sign.

Table 5-11—Bicycle trail, paved or coincident with roads

	Sign Requirements			
Sign type	**Sign face**	**Minimum size (*inches*)**	**Color**	**Shape or sign type**
Regulatory and warning	Shall be retroreflective	Shall follow MUTCD Table 9B-1 Warning: 18 x 18	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA Series C, 3 inches	White legend on brown background	FRD
Reassurance markers	Shall be retroreflective	12 inches	White legend on brown background	Federal Rec. Symbol RL-090

Sign support and placement requirements	
Reassurance marker supports	Posts or trees
Minimum mounting height, trail tread to bottom of sign	4 feet with 5 foot maximum
Minimum lateral distance, edge of trail tread to nearest edge of sign	3 to 6 feet

Remarks:

- Standards shall be in accordance with the MUTCD, Part 9, Traffic Controls for Bicycle Facilities.

Table 5-12—Mountain bike trails

Sign type	Sign face	Sign Requirements Minimum size (*inches*)	Color	Shape or sign type
Regulatory and warning	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA, Series C, 2 inches	White legend on brown background	FRD
Reassurance markers		3 inches	White legend on brown background	Federal Rec. Symbol RL-090
	Sign support and placement requirements			
Reassurance marker supports		Posts or trees		
Minimum mounting height, trail tread to bottom of sign		5 feet		
Minimum lateral distance, edge of trail tread to bottom of sign		2 to 6 feet		

Remarks:

Table 5-13—ATV/motorcycle trails

Sign type	Sign face	Sign Requirements Minimum size (*inches*)	Color	Shape or sign type
Regulatory and warning	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Reassurance markers	Shall be retroreflective	3 inches	White legend on brown background	Federal Recreation Symbol RL-150 or RL-170

Sign support and placement requirements	
Reassurance marker supports	Posts or trees
Minimum mounting height, trail tread to bottom of sign	5 feet
Minimum lateral distance, edge of trail tread to nearest edge of sign	2 to 6 feet

Remarks:

Table 5-14—Snowmobile trails

Sign type	Sign face	Sign Requirements Minimum size (*inches*)	Color	Shape or sign type
Regulatory and warning	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	9 inch x 12 inch diamond or rectangle (minimum 4 inch)
Reassurance markers	Shall be retroreflective	5 x 7 9 x 12	Orange or fluorescent orange	TB-1 plastic blazer TB-2 with arrow
	Sign support and placement requirements			
Reassurance marker supports	Posts or trees			
Minimum mounting height, trail tread to bottom of sign	40 inches above average maximum snow level No more than 84 inches above current snow level			
Minimum lateral distance, edge of trail tread to bottom of sign	2 to 6 feet			

Remarks:

- Destinations on guide signs should emphasize safety features such as shelters and warming huts.
- Use a location map showing the trail system, groomed or ungroomed conditions, and a “YOU ARE HERE” arrow at each intersection for user orientation and security. .
- Guide poles may be painted orange, have a orange TB-1 blazer mounted on both sides, or be wrapped with retroreflective orange tape.
- Where wide variation in snow accumulations can be expected, periodic resetting may be necessary.
- In areas with heavy summer use, consider mounting the signs on posts that can be removed from a stationary base. This will improve aesthetics and reduce vandalism and sign maintenance.
- When trees are used for mounting signs, prune limbs well above the sign so limbs will not droop with the weight of snow and obscure the sign.

Table 5-15—Water trails

Sign type	Sign face	Sign Requirements Minimum size (*inches*)	Color	Shape or sign type
Regulatory and warning	Shall be retroreflective	Warning: 12 x 12	Shall follow MUTCD colors	Shall follow MUTCD shapes
Guide	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Junction identity	Shall be retroreflective	Text: Capital ASA Series C, 2 inches	White legend on brown background	FRD
Reassurance markers	Shall be retroreflective	3 inches	White on brown	Federal Rec. Symbol RW-020
	Sign support and placement requirements			
Reassurance marker supports		Posts or trees		
Minimum mounting height, trail tread to bottom of sign		5 feet above high water level		
Minimum lateral distance, edge of trail tread to nearest edge of sign		2 to 6 feet		
Remarks:				