

Signing Guidelines for DNCR managed Rail Trails throughout the State of NH



State of New Hampshire

Department of Natural and Cultural Resources

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Version 1.0

Adopted by the Department of Natural & Cultural Resources, Division of Parks and Recreation, Bureau of Trails for use on State of New Hampshire owned and managed rail trails under the management and or maintenance of the New Hampshire Bureau of Trails.

I approve the Signing Guidelines for DNCR managed Rail Trails throughout the State of NH:

Sarah Stewart, Commissioner
Department of Natural and Cultural Resources
Concord, NH

Date

Colin Capelle, Interim Director
Division of Parks & Recreation
Department of Natural and Cultural Resources
Concord, NH

Date

Craig Rennie, Chief Administrator
Bureau of Trails
Division of Parks & Recreation
Department of Natural and Cultural Resources
Concord, NH

Date

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4. General Information

Introduction:

- The NH recreational state-owned rail trail network is growing, and trail user's enjoyment and safety are enhanced when all state-owned rail trails are signed uniformly. The NH Bureau of Trails (BOT) developed these Guidelines as a resource for municipalities and organizations that are authorized to sign the state-owned rail trails that under the maintenance and management of the Department of Natural & Cultural Resources (DNCR). Not all state-owned rail trails are under the authority of DNCR so any organization seeking to sign those rail trails should seek approval from the managing agency.
- The purpose of these Guidelines is to describe techniques for posting DNCR approved standardized signs to promote uniformity throughout the State of New Hampshire's rail trail network and result in a good experience for the trail user. This manual is intended to address any signage for state-owned rail trails that would be specific by rail trail and location within the state. These Guidelines should not be construed as reducing the basic recreational trail user's responsibility for proper behavior and trail etiquette while using the state-owned rail trails.
- The guidelines are subject to change at the discretion of the Department of Natural and Cultural Resources, Bureau of Trails should the need arise.

Approval Process:

- Only organizations authorized (via a trails maintenance agreement) by DNCR may post signs on the state-owned rail trail network. All signs must go through the DNCR approval process prior to installation which includes determining if the state or DNCR logo may be used on any proposed signs. Once DNCR HQ receives the request, it will be forwarded to the appropriate BOT District Supervisor for review. The Supervisor may follow up with questions to the point person for the request. Be sure to include appropriate contact information for your organization.
- Requesting approval for signs can be sent to DNCR HQ via email at nhtrails@dn-cr.nh.gov.
 - o Please attach all documents to the email with the subject line reading "Rail Trail Sign Approval Request"
 - Documents to include with the request:
 - Contact information for organization/point person for request
 - A dig safe ticket for all potential sign locations
 - Proofs of all sign designs
 - A list of all signs for review with GPS points for each potential location
 - A keyed map of all sign locations
 - o The BOT District Supervisors will use the sign location map to determine where final locations of signs to be installed and if additional signage is necessary.

Some things to take into consideration:

- To retain as much uniformity as possible, it is recommended that the trail signing be done by a small group of trail advocates (in hereafter the "Trail Signing Group") that are familiar with these Guidelines and have been authorized by DNCR via a Maintenance Agreement. Any Trail Signing Group that is seeking authorization should understand that all structures installed on state property will become property of the State and that the State has final authority to approve or not approve sign proofs and placement. Any Trail Signing Group should also understand that any signs installed under their Maintenance Agreement is their responsibility to maintain and or replace if needed.
- The Trail Signing Group should be a part of, or work with, the local snowmobile, OHRV, municipality or regional trail group to coordinate placement of signs, so to not interfere with the running of maintenance equipment and maintenance procedures. Snowmobile and OHRV clubs have specific signage guidelines for motorized users. These Guidelines are not intended to duplicate those signs but to incorporate additional signage that can be posted year-round for all trail users. Some signs may overlap, and this will be approved on a case-by-case basis via BOT District Supervisors.
- Because the Trail Signing Group is most likely made up of individuals very familiar with the trail system, they should imagine they have never been on the trails before and picture what signs would be necessary to provide

trail users a good experience. Overuse of signs increases costs, maintenance, creates clutter and attracts graffiti/vandalism.

- It is recommended that any organizations that have agreements to maintain DNCR rail trails carry these Guidelines, extra signs, and mounting materials with trail maintenance equipment so that vandalized or missing signs can be replaced.
- Informational signs placed on the trails may not promote nearby specific destinations and/or businesses. Instead, the signs must be general and make statements such as food, gas, or downtown followed by a directional arrow and mileage.
- Any Trail Signing Group that installs permanent signage on any DNCR property will be responsible, through the Groups Maintenance Agreement, to maintain signs as well as keep a record of every sign permanently installed with a GPS location of what type of sign is installed.
- the Federal Highway Administration's [Manual on Uniform Traffic Control Devices \(MUTCD\)](#) is the national standard for all traffic control devices, including signs, markings (e.g., white and yellow pavement lines), and other devices used to control traffic on all roads open to public travel. Traffic control devices and bases must be constructed, located, installed, and maintained according to MUTCD standards. This handbook typically does not repeat MUTCD information but pulls information for specific purposes, such as colors, font used, size of font and shapes of signs.
 - o In general, the Bureau of Trails recommends using **Humanist 521 BT (Roman)** font or **Marathon-Serial-Regular** font.
 - o The [Bureau of Land Management National Sign Handbook](#) lists on page 17 **Frutiger 67 Bold Condensed font** or suggest other Federal Highway Approved font.

Historical objects on Rail Trails

- All of NH's rail trails were once rail roads and many of their historical objects are still in place today on the rail trails and look like old signs. Some examples of these objects are: mile markers, mile posts, whistle posts, etc. There are several other rail road objects that are part of the infrastructure of the rail trail but are not sign related like: rail rests, culverts, retaining walls, bridges, etc.
- These objects are under the purview of the NH Division of Historic Resources and are to be left in place undisturbed (whether they fell over or not) by any trail user or any organization that has a maintenance agreement with DNCR: Bureau of Trails.
- All historic objects have specific guidelines for preservation and many common materials (like paint, cleaners, etc.) can damage these objects. As such none of the objects are part of this sign guidelines and should be left undisturbed.

National Markers

- The [National Trails System Act](#) (P.L. 90-543, as amended) requires the establishment of a uniform trail marker (symbol or logo) (16 U.S.C. 1242 (a)), and an appropriate and distinctive symbol (logo) for each national scenic, historic, and recreation trail (16 U.S.C. 1246 (c)). For identification signs, use the National Trails System uniform marker with the distinctive symbol (logo) for each congressionally designated trail.
- The distinctive symbol (logo) for each congressionally designated national scenic or historic trail is officially developed, adopted, and maintained by the administering agency—the BLM, the USFS, or the National Park Service (NPS)—as delegated by the Department of the Interior (BLM and NPS) or the Department of Agriculture (USFS). Each agency's national trail administrator can provide permission to use the trail symbols (logos), as well as information about any additional trail marking standards (pursuant to 16 U.S.C. 1244). The NPS Harper's Ferry Center maintains the official design of the logos for most congressionally designated trails.
- In contrast with national scenic and historic trail symbols, the distinctive symbols (logos) for national recreation trails, including national water trails (Secretarial Order 3319 of February 29, 2012), are uniform markers as opposed to distinctive markers. No uniform marker is required or developed for secretarially designated connecting and side trails at this time (16 U.S.C. 1245).
- To request an official logo for trail use, the National Parks Service must be contacted for all requests. Information regarding this can be found on NPS's website [here](#).

- In NH, there are currently (as of January 2025) only 5 trails designated as National Recreation Trails, none of which are rail trails. A database of National Recreation Trails can be found [here](#).



Acquisition of Signs

- In general, each Trail Signing Group is responsible for the acquisition of signs for the trails they are authorized to sign via their Maintenance Agreement with DNCR.
- The Recreational Trails Program (RTP) grant is one funding source that can be used to cover some of the cost of the signs, posts, hardware, and installation labor. The RTP grant does require a match to the grant funds, which can be accumulated via volunteer labor of installing the signs or as a cash match.
- It is recommended to use a sign print shop to purchase the signs. Such a shop should provide the preferred quality and durability. Ensure to inform the print shop the application of the signs and the expected 10-year life. In general, home-made signs will not be approved to be installed on DNCR property.

Signs that the Motorized clubs will affix to state-owned rail trails.

- Trails that allow snowmobile (SM) and off-highway recreational vehicles (OHRV) use have nationally established signing standards. The local SM/OHRV club should install appropriate signage on the state-owned rail trails pertaining to motorized use and have received training to properly sign a trail with guidance from the BOT District Supervisors. In the absence of a local SM/OHRV club, the Bureau of Trails staff will add/remove any appropriate SM/OHRV signage.
 - o [Click to view the Snowmobile Guidelines for Trail Signing.](#)
 - o [Click to view the OHRV Guidelines for Trail Signing.](#)

Some examples of motorized trail signage that will be installed by motorized clubs (not all are pictured):



Signs that the Bureau of Trails staff will affix as necessary to state-owned rail trails.

- Some signs will be installed by Bureau of Trails staff and will not be distributed to municipalities, motorized clubs nor Trail Signing Groups to use.

Some examples of BOT-installed signs for regulatory use (not all are pictured):



5. Kiosk related signage

- Kiosks are an excellent source to get information to trail users. Kiosks that are located on state-owned rail trails should follow the DNCR kiosk standard designs. Kiosks at parking lots are (in general) a 3-panel display. The left side of the kiosk is reserved for signs that Bureau of Trails Staff will apply that are our standard Rail Trail rules and permitted uses. The middle of the kiosk is reserved for maps. The right side is reserved for additional signage that is appropriate for this specific rail trail.
- All signage affixed to kiosks are subject to Bureau of Trails approval. Any signage affixed to kiosks not approved by the Bureau of Trails should be immediately removed and discarded.
- In general, scannable QR codes can easily be tampered with. The Bureau does not recommend using any sort of QR codes on any signage.

Below is an example of layout for Kiosks on DNCR rail trails.



Examples of BOT-installed signs for rules:

Recreational Rail Trail Rules.



Permitted uses: 3 different classes



Examples of Kiosk signs for municipalities, Trail Signing Groups to install: In general, signs should follow the Pantone colors for printing, use the same general font and follow a rectangular shape with rounded corners, 1/8" holes drilled top and bottom.

Please Cleanup after your animal.



Carry-in/Carry-out




Volunteers needed







6. Signs that would be on the rail trail itself


Regulatory Signs: These signs give notice of traffic laws or regulations. Only one regulatory sign is allowed on DNCR rail trails and that is the stop sign. This can be placed at any and all road crossings for both directions of travel.

Regulatory signs allowed for installation		
Name of Sign	Description of Sign	Sign Proof
Stop	Indicating that all trail users should come to a complete stop <ul style="list-style-type: none"> - Size/shape: 12"x12" hexagon, with 1/8" holes top and bottom, pointed corners. - Materials: polyethylene, 0.055" thick - Colors: red pantone color 187 non-reflective for field/background with white reflective letters and 3/8" white reflective border. - NOTE: no other signs are allowed to be posted on the same post as a stop sign 	



Warning Signs: These signs give notice of a situation that might not be readily apparent.

- These signs in general should be:
 - Material: polyethylene: 0.055" thick
 - Shape: square in shape with diamond orientation
 - Size: 12"x12"
 - Corners: rounded
 - Holes: 1/8" holes drilled in each corner
 - Pantone color: reflective yellow 116 for the field and non-reflective black for the lettering
 - Include a 3/8" black non-reflective border

Warning signs allowed for installation		
Name of Sign	Description of Sign	Sign Proof
Stop Ahead	Informing trail users that they are approaching a stop sign. <ul style="list-style-type: none"> - use non-reflective red pantone color 187 for hexagon - non-reflective black for the arrow 	
Caution Bridge Ahead	Informing trail users to slow down as they are approaching a bridge crossing.	
Caution Gate Ahead	Informing trail users to slow down as they are approaching a gate across the trail.	
Trail ends	Use if the trail ends abruptly.	


Object Marker	<p>Object Markers are valuable signs that show safe passage on a trail. NOTE these signs are not the same general size/thickness as other Warning Signs.</p> <ul style="list-style-type: none"> - Size: 8x8" square with no holes & square corners. - Color: pantone yellow 116 for the field with 1" yellow reflective diagonal bars and 1" black non-reflective diagonal bars. No border. - Material: polyethylene, 0.019" thick 	
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Informational Guide Signs: These signs show route designations, directions, distances, services, points of interests and other geographical, recreational or cultural information.

Informational signs allowed for installation		
Name of Sign	Description of Sign	Sign Proof
Trail courtesy/ etiquette	<p>Can be placed on kiosks and key trail access points</p> <ul style="list-style-type: none"> - Size: 10" tall x 11.25" wide triangle, - Colors: yellow pantone color 116 stock with black lettering, no outline, non-reflective. - Material: polyethylene, 0.055" thick with rounded corners - Holes: 1/8" holes (top & bottom) 	
Trail parking	<p>While these signs are used by motorized clubs, they can be useful to other users and can be permanent in certain locations.</p> <ul style="list-style-type: none"> - Size: 12x24" rectangle, - Color: white stock with green pantone color 342 for letters, outline and border (all non-reflective). - Materials: polyethylene, 0.055" thick with no holes, square corners - NOTE: Need a backboard to install – ¼" (or greater) pressure treated plywood 	

Location Specific Signs

- These signs in general should be:
 - constructed of a polyethylene: 0.055" thick
 - rectangular in shape,
 - square corners
 - 1/8" holes drilled on top and bottom,
 - using Pantone color: Brown 469 for the field and reflective white for the lettering,
 - include a reflective border to assist in visibility.
 - Font should be consistent: recommended fonts are: **Humanist 521 BT (roman)** or **Marathon-Serial-Regular**

Location Specific signs allowed for installation		
Name of Sign	Description of Sign	EXAMPLE Sign Proof
Wayfinding	<ul style="list-style-type: none"> - NOTE: All way-finding signs must have both their location and information approved by the Bureau of Trails. - Each one of these signs would contain specific information related to the exact location they are placed on the trail. Therefore, it is critical to obtain BOT approval to where this sign will be placed before printing. - Some suggested locations would be junctions of two trails intersecting or when a trail crosses a road. 	

Town Line identifier	<p>Informs trail users the town they are crossing.</p> <ul style="list-style-type: none"> - Town identifier. TOWN IDENTIFIER 12" x 12" Square Mount parallel to the trail. - NOTE: No town logos are to be used with this sign. 	
Street Sign	<p>Rectangle Street identifier.</p> <ul style="list-style-type: none"> - The "STREET SIGN" sign is a 6"x12" rectangle that is mounted perpendicular to the trail so an approaching Trail User would know the upcoming street name. - This needs to be posted post before the stop sign – 25' and not blocking the view of the stop sign 	
Amenity/Informational Signs	<p>Instructs trail users of direction, distance, type and name of nearby amenities. Must be VERY careful to not promote a specific business.</p> <ul style="list-style-type: none"> - In General: amenity signs should be: - Size: 6" x 16" rectangle - Colors: pantone color brown 469 stock with white reflective letters, and a white reflective border - Material: polyethylene, 0.055 thick with square corners - Holes: 1/8" holes top & bottom - A complete list of various amenities symbols can be found in the Manual on Uniform Traffic Control Devices Figure 2H-5: with their specific code to use when printing. - 	
<p>Below are some examples that can be added to wayfinding signs. See the MUTCD link for a complete list.</p>		
<p>RM-050 Food</p> 	<p>RM-040 first aid</p> 	<p>RM-120 Picnic Area</p> 
Junction signs	<p>These show a user an intersection of two trails.</p> <ul style="list-style-type: none"> - Size: 6" x 16" rectangle - Colors: pantone color brown 469 stock with white reflective letters, and a white reflective border - Material: polyethylene, 0.055 thick with square corners - Holes: 1/8" holes top & bottom 	

7. Trail Sign Placement.

The following provides information on how signs are to be oriented and installed.

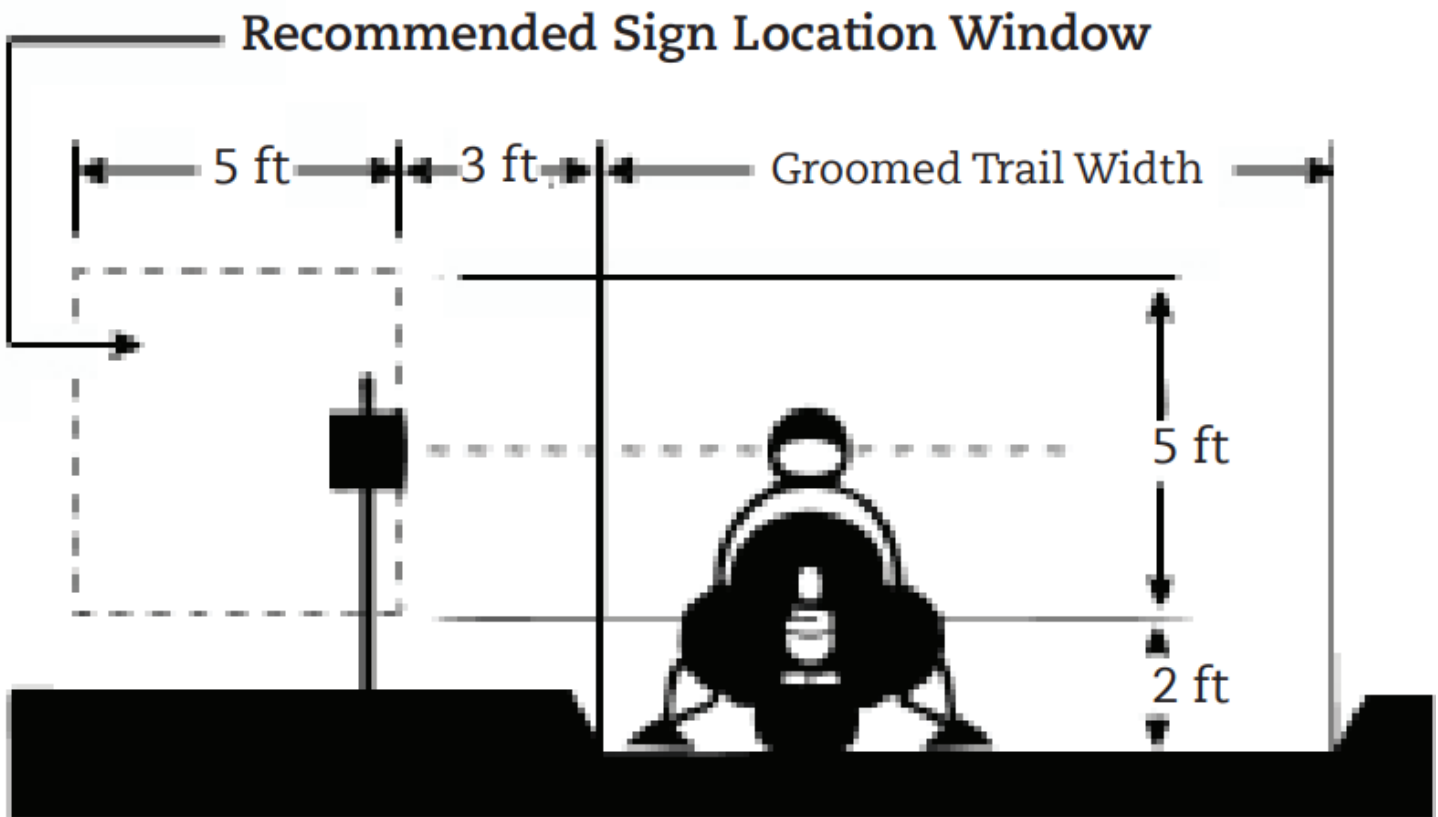
General Mounting Considerations

- Since the trail will be used in both directions, separate, and often different signage may be needed for each direction of travel.
- Since recreational use of the trail is year-round, the mounting of signs should accommodate all seasons of the year. Consideration for snow accumulation should be given when placing any sign as the height of the sign will vary with the amount of snow depth.
 - o Some motorized trail signage is seasonal and the local motorized club or Bureau of Trails staff will remove at the end of its season.
- Generally, signs should be placed on **the right side of the trail** within the **sign window** (see figure 1) to conform with the trail user familiarity to highway signage.
- The sightline from the trail user to the sign must be clear the entire distance the sign is intended to be viewed. This requires routine monitoring and pruning of vegetation.
- All signs shall be mounted on posts or kiosks.
 - o Screws/bolts should be used instead of nails to reduce theft and vandalism.
 - o All **signs** (excluding junctions) should be mounted on **4"x4"x8'** pressure treated posts and be buried a minimum of 3' in the ground.
 - o All **junction signs** should be mounted on **4"x4"x10'** pressure treated posts and be buried a minimum of 3' in the ground. All junction posts should be capped at the top.
 - The two signs that are being mounted should be perpendicular to their respective trail.
- It is *not* recommended that signs be mounted on *trees*.
 - o If the tree is the only alternative, it is recommended that aluminum nails or staples be used, ensuring they are all removed from the tree if the sign is removed.
- Overuse of signs should be avoided.
 - o Only signs authorized by the Bureau of Trails should be posted to avoid clutter and confusion.
 - o No specific business names may be used on any state-owned rail trail.
- When more than one sign is mounted on the same post surface, the signs should be placed vertically with the most important sign on the top.
 - o No more than 2 signs should be mounted in this fashion.
 - o If there is more than one post in a similar location, then each post should be spread apart by 4' of trail length.

Orientation

- Signs should be no lower than 48 inches (4ft) from the ground and no higher than 72 inches(6ft).
 - o There is a varying distance between the depth of the trail and the side of the trail. If a trail is properly crowned, it may rise above the trail side surface. If the trail is highly eroded, it may dip below the side of the trail. If in question on how high to mount a sign above the ground, err on the side of caution and post sign higher.
- Signs should be oriented perpendicular to the trail within a 5' by 5' area that starts 3' from the trail's edge and 2' above the trail surface. See Figure 1 for a diagram of the sign window.

Figure 1: diagram of sign window.



Maximizing Reflectivity

- The most critical part of sign mounting is understanding how reflective signs work. One good analogy is to think of reflective signs as mirrors. To maximize the nighttime view of the sign, the optimum height is at eye level, perpendicular to the direction of travel on the trail.
- This orientation also ensures that the sign is visible over the longest possible distance, giving the trail user the longest time frame to read, comprehend, and react to the sign's message. See Figures 2 and 3.

Figure 2: Sign Orientation, Side View. Signs placed too high or too low do not reflect back to the trail user.

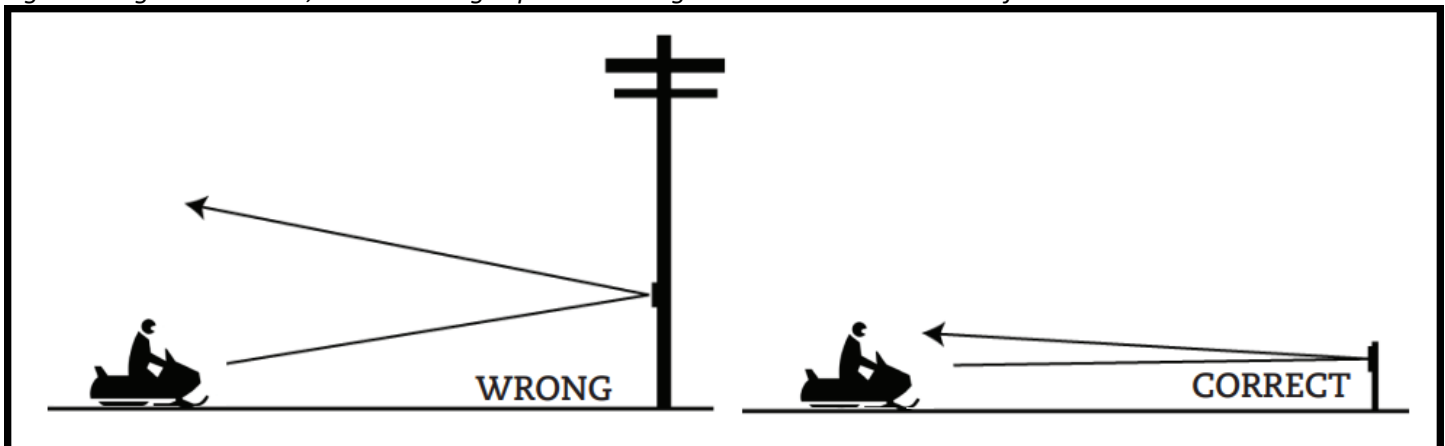
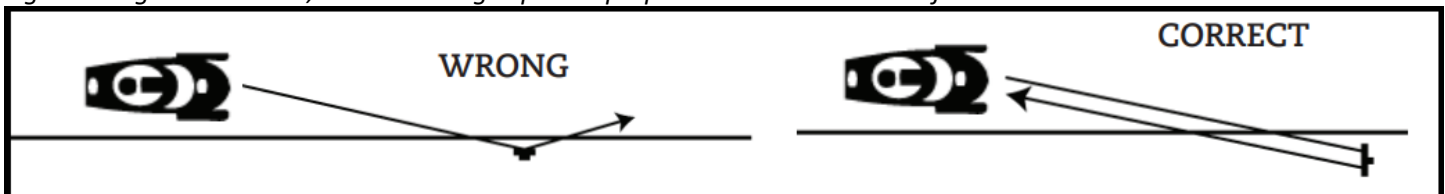


Figure 3: Sign Orientation, Plan View. Signs placed perpendicular to the trail reflect back to the trail user.



Placement of sign posts in relations to hazards

- **Regulatory signs** shall be placed to the side of the trail in accordance with the page 8. Unlike *Warning Signs*, Regulatory Signs are located where the desired action is to take place.
 - o Note: the only regulatory sign included in this guideline is the STOP sign, which is to be mounted on its own post with no other signage at the location requiring a complete stop.

- **Warning Signs:** What is the proper distance before a hazard to place a **Warning Sign**?
 - o There are several factors involved in calculating the minimum posting distance, including:
 - (a) sign legibility or recognition,
 - (b) decision-making time,
 - (c) the coefficient of friction between the trail user vehicle (ex: skies on a snowmobile) and the trail surface,
 - (d) a comfortable braking distance (for both motorized and non-motorized users), and
 - (e) the initial speed of the trail user vehicle when the sign is first observed by the trail user.
 - o In these Guidelines, recommended placement of **Warning Signs** is determined based on the idea that the trail user vehicle (example a snowmobile) should come to a complete stop before the obstruction or trail condition. In some cases, a complete stop is not necessary, but it is recommended the posting distance be sufficient for a complete stop in the event it is necessary.
 - o The factor having the greatest effect on calculations for posting distance is the speed of the trail user's vehicle when the rider first sees the signs.
 - o The intent of the Table 1 is based on miles per hour and is to give a recommended minimum distance and an acceptable range rather than a specified distance. It is the Trail Signing Group's responsibility to estimate the common appropriate speed on the portion of the trail where the signs are being installed.
 - The table ends at 45 MPH for a trail user's judged speed. This is because the maximum speed allowed on DNCR rail trails by motorized users is 45 MPH. No user should travel faster than 45 MPH on any DNCR rail trail.

Table 1: Warning Sign Placement Table

Recommended Minimum Posting Distances for Snowmobile Warning Signs					
Judged Speed	Condition Requiring Stop "X" =	Deceleration Distance to Desired Speed (MPH) "Y" =			
		10	20	30	40
20	*	**			
25	*	100	**		
30	175	150	100		
35	225	200	175	**	
40	300	275	250	175	
45	350	350	300	250	**

* No suggested minimum distance recommended. At these speeds, sign location depends on physical conditions at the site.

** No suggested minimum distance recommended. At these 5-mile-per-hour reductions in speed, location depends on the physical conditions at the site.

Trail Sign Schematics

- Figures 4 & 5 are simplified trail sign schematics that are intended to serve as a guide for the Trail Signing Group. They depict some of the most common basic situations that are encountered on most recreational trails. Not all BOT approved signs are shown in these schematics.
- It is understood that unusual situations may be encountered that are related to trail conditions, topography, man-made objects, etc., that will require the trail signing crew to make some modifications.
- Informing the trail user of trail user safety are paramount and must be considered by the Trail Signing Groups.

Figure 4: Trail to Trail T Intersection Schematic

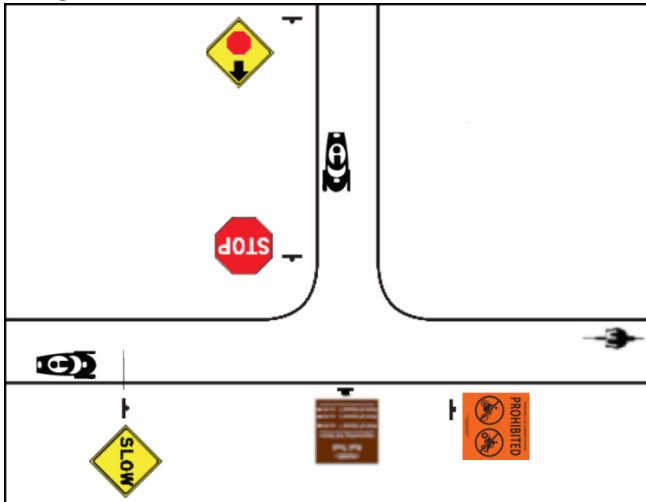
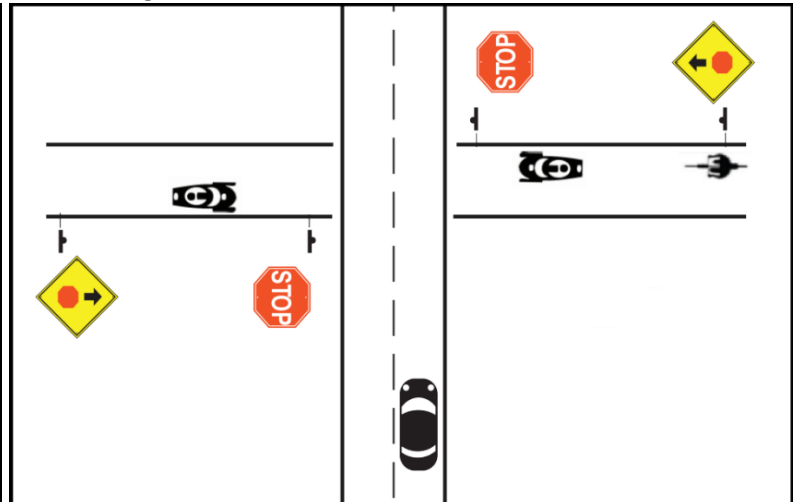


Figure 5: Trail to Road Intersection Schematic



The Object Marker

- Object Markers are valuable signs that show safe passage on a trail. They are usually placed on bridges, but may be used on permanent trailside hazards such as stumps, rocks, etc. When mounting these signs, the yellow and black stripes should always point down and away from the hazard toward the safe lane of travel. See figures 6 & 7 for examples of placing object markers.

Figure 6: This is an example of an object marker posted on various trail hazards:

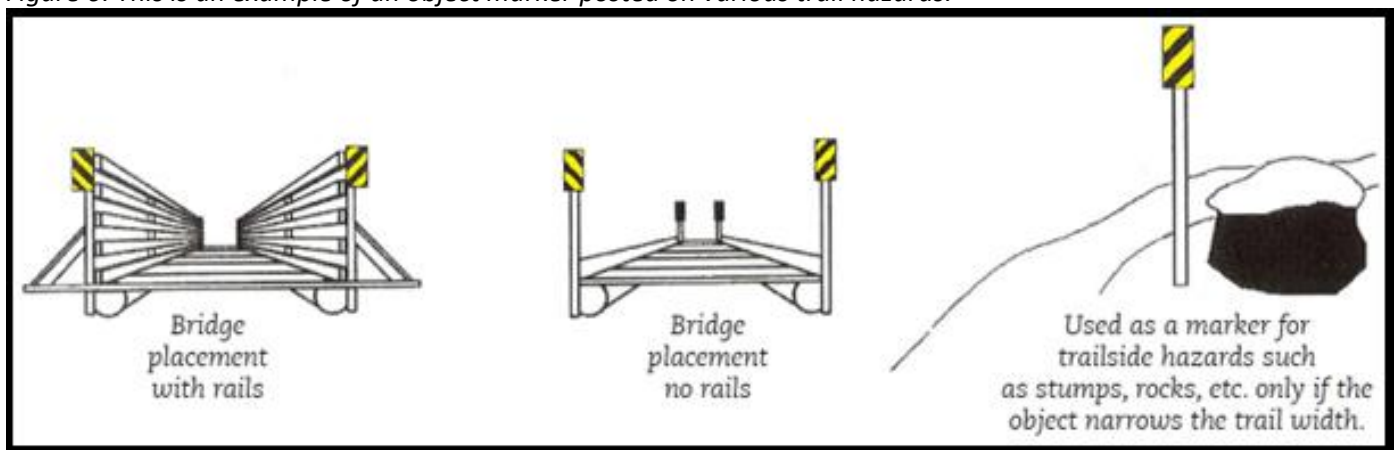
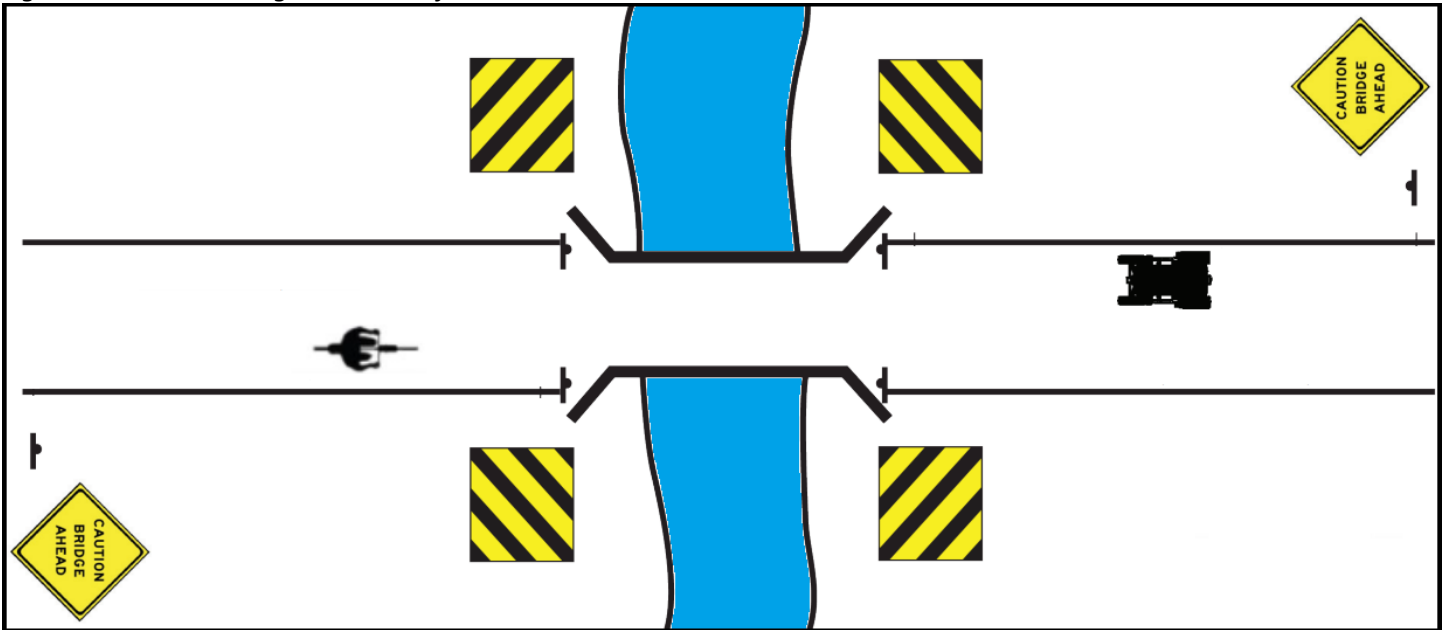


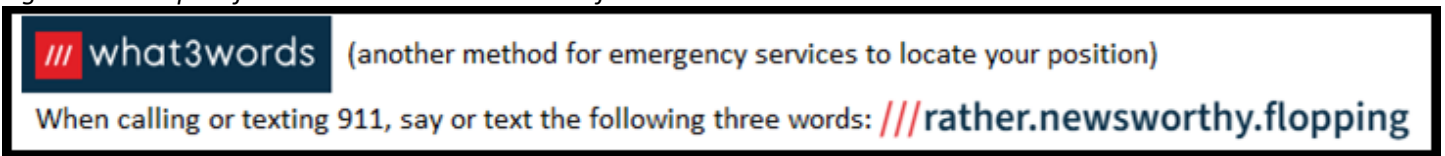
Figure 7: Common Bridge Schematic for trail markers



8. Additional options for safety

- **E9-1-1 Address signs**
 - o Located at specific location with a stickers attached showing the specific GPS coordinate.
 - o Can be placed at road crossings and junctions – locations determined by 911 ONLY.
- **What Three Words**
 - o NH 911 has been promoting the use of “[What three words](#)” as an additional way of locating a position in the field. When a Trail Signing Group has signs correctly mounted on the trail system, a specific sticker can be applied to the bottom of the sign using the three words that are specific to that location. If a sign is removed and used in another location, the “what three words” sticker must be removed and replaced with a new sticker specific to the new location.
- Stickers should be: 2”x6” white background with black non-reflective letters made of a weatherproof material. The sticker should indicate that these words are to be given to emergency services in the event of an emergency. See figure 8 for an example sticker.

Figure 8: example of a “what three words” sticker format



- NH 911 is currently utilizing “what three words” signage. See figure 9 for an example sign implemented by NH 911.

Figure 9: “what three words” sign example being implemented by 911



9. Appendix: The Department of Natural and Cultural (DNCR) sign standards for non-motorized trails

The Department of Natural and Cultural Resources (DNCR) has routed sign standards for *non-motorized trails* within DNCR properties. These signs are different than this sign guideline.

For copies of the sign standards for non-motorized trails, please email: DNCR: NH Trails at nhtrails@dncr.nh.gov.