

5. Wayfinding

Signage provides trail users with essential information for navigating trails and utilizing associated facilities. Trail signs require meticulous design and appropriate installation, contingent upon anticipated use type and intensity. Both trail users and managers should avoid excessive signage, which can lead to environmental clutter, information overload and desensitization to regularly posted information. Signs must exhibit clarity, conciseness and legibility. Their strategic location and placement are critical. The frequency of trailside signage should be determined by trail context. Urbanized trails may require less frequent markings due to a higher prevalence of street crossings, whereas rural trails may necessitate frequent markings given the scarcity of points of interest.

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Emergency Indicators – Trail design should integrate a unified emergency demarcation system, developed in collaboration with first responder services, while also considering the specific trail environment. Signage detailing emergency procedures should be strategically placed at trailheads or along trails as determined by trail management. Frequently, trail users are uncertain whether to contact the trail manager or emergency services first. This protocol should be established locally through coordination between the land manager and first responder services.

Maps and Signs – Signs, maps and brochures should be provided at all trailheads and strategically placed information kiosks to delineate permitted trail uses, section distances, difficulty ratings and to indicate the user's current location relative to the kiosk or trailhead. Signs and maps may also highlight landmarks, prevalent wildlife, unique features and sites of historical or ecological significance. All signage must be easily identifiable, vandal-resistant, weather-resistant and durable.

Posting Height – Markings for hiking, off-road cycling and multi-use trails should be positioned 4 to 6 feet high on poles or posts along the trail, or 5 to 6 feet high on trees. Equestrian markings should be positioned 4 to 6 feet high on poles or posts along the trail, or 7 to 8 feet high on trees.

Private Property – Trails frequently border

and occasionally cross private property. Trail users are obligated to respect these boundaries by observing posted signs and exercising caution to avoid trespassing. While it is the trail user's responsibility to determine their location, it is the manager's responsibility to provide comprehensive information regarding the trail and trailhead. Information should be disseminated via kiosks, trail maps or along the route. Supplementary information may be provided to mobile devices utilizing geolocation technology.

Trail Marking and Location System – A standardized, universally recognized and easily comprehensible trail marking system must be provided. This system should be deployed at hazardous points and directional changes along the trail.

Types of Trail Signs and Marks

A variety of sign types are utilized on trails throughout Florida. Each sign should clearly orient trail users, thereby contributing to a positive trail experience. Numerous international, national and statewide organizations have established specific guidelines and standards for the application of blazes, signs and other trail marking systems. Adherence to these established trail marking systems is imperative, and they should not conflict with localized systems.

The most common practices for affixing signs and marks along trails include painting directly onto tree surfaces, nailing to a post or tree with an aluminum nail or utilizing a post buried a minimum of 2 feet deep.

Attachment Methods – Various methods exist for affixing signs or marks along trails to convey information to users regarding their trail experience. The method of placement for a sign or mark on a trail or fixture (e.g., tree, post) can influence the user's experience. Typically, the most common practices for affixing signs and marks along trails include painting directly onto tree surfaces, nailing to a post or tree with an aluminum nail or utilizing a post buried a minimum of 2 feet deep with a cross member at its base for stability.

Camping Blazes or Signs – Camping areas should be delineated with appropriate signage. Designated camping areas may feature signs affixed to trees, poles or posts.

Directional Signs – Directional signs, informing trail users of their location and route of travel, represent a fundamental and requisite component of any trail system. Signs should incorporate a





combination of styles to accommodate users of all abilities. For instance, a set of textured shapes in contrasting colors can provide superior orientation for users with visual impairments compared to a plainly colored shape. Directional signs must clearly differentiate primary trail routes from side, access, loop, connector or cross trails, and employ double blazes or a graphic symbol to indicate changes in trail direction.

Educational/Interpretive Signs – Unique natural or cultural features along the trail should be highlighted with educational/interpretive signage. Material, color and size must maintain consistency along the same trail or natural feature.

Festival Signs – The promotion and advertisement of special activities and events are executed at the discretion of the trail manager, in adherence to applicable guidelines and regulations.

Graphic Symbols – Each trail system may utilize distinct graphic symbols with specific meanings. For example, an international association publishes mountain biking standards, while hiking groups have predominantly adopted a blaze system. Graphic symbols convey information to trail users regarding a trail section's level of difficulty, directions, warnings and other pertinent details.

Informational Signs – Informational signs orient trail users to their position within a trail

system, provide an overview of facilities and/or amenities and describe routes to reach them. Informational signs may also denote trail length, distance traveled (milepost) and other relevant data. The material, color and size of signs employed must be consistent within a particular trail system. Signs may incorporate internationally recognized symbols for all graphic representations. Designated camping areas should be marked or signed and situated off the main trail path.

Regulatory Signs – Regulatory signs are deployed to inform trail users of applicable laws, regulations and rules governing the trail, including permitted uses, hours of operation and accessibility. Regulatory signage must adhere to the requirements of the agency exercising jurisdiction over land trail crossings. All regulatory signs should feature black lettering on a white reflective background, unless otherwise specified by the jurisdictional agency. Check for consistency with local authorities for specific regulations or guidelines.

Trail Blazes – Trail blazes represent a common marking system for various trail types. Many trail managers employ diverse shapes, sizes and classifications of trail blazes. Blazes should be painted vertically, with a minimum dimension of 2 inches wide by 6 inches long. Offset double blazes or a sign should be utilized to indicate a change of direction when the trail deviates from an apparent path. Double blazes should

Warning signs should be of uniform size and positioned at a sufficient distance to afford users adequate reaction time to the hazard, typically a minimum of 50 feet before the hazard and at the hazard location.

be painted vertically, 2 inches apart. Blazes or signs should be sufficiently frequent along the trail and clearly indicate the appropriate user type for the correct trail. The spacing between blazes will vary according to terrain or water body characteristics. The trail must be blazed or signed to facilitate bidirectional navigation.

Warning Signs – Warning signs are deployed to alert trail users to potential hazards such as sharp curves, slippery bridges, roadway crossings, steep downhill or uphill conditions, blind intersections, changes in trail surface conditions and waterway hazards. Warning signs should be of uniform size and positioned at a sufficient distance to afford users adequate reaction time to the hazard, typically a minimum of 50 feet before the hazard and at the hazard location. Warning signs should possess high visibility, featuring black lettering on a reflective yellow background. Signs should maintain consistency along a given trail and be designed at the discretion of the managing authority.







6. Trail Amenities

Support facilities, including trailheads, parking and staging areas are integral to the functionality, management, accessibility and safety of trails. Not all trails necessitate a primary or secondary trailhead. The location and layout of support facilities should be uniformly designed with environmental sensitivity, accommodate users and must comply with ADA requirements.

Trailheads – A trailhead is defined as a point of access or the commencing location of a trail system. A trailhead serves as a central point for trail-related information. Trailheads are categorized into three classifications: Primary, Secondary and Remote.

- **Primary trailheads** are typically more developed, offering the most comprehensive facilities and trail information. These may include improved parking areas, sanitary facilities, informational and interpretive signs, maps and brochures, potable water, picnic facilities, electric service, direct access for management personnel and other amenities.
- **Secondary trailheads** are typically less

developed and situated along the trail route. They may comprise unimproved parking areas, sanitary facilities, informational signs, maps or brochures, potable water and provide access for management personnel.

- **Remote trailheads** consist of an unimproved parking area, benches, signs, maps or brochures and access for management personnel.

Rest Stops – A rest stop is a designated location for pausing along a trail. Minimally, a rest stop can simply include a bench situated in shade or beneath a roof structure. Planning for rest stops must incorporate considerations such as surveillance, security and distance.

Parking and Staging Areas – The average and maximum user capacity of a trail must be considered when planning parking requirements. Parking facilities should be sized commensurate with anticipated use demands, trail activity and user type. Primary trailheads must provide several spaces consistent with the expected usage of the served trail. Specific considerations for parking requirements for individuals with impairments are necessary in areas where certain surfaces could

Access to shade and potable water should be a design consideration for equestrian parking areas.

impact the natural environment. Parking lots must furnish adequate space for vehicles with trailers and incorporate appropriate turning radii. Staging areas at trailheads should be strategically located to provide convenient and safe access to the trail.

- **Equestrian Trailer Parking** – In addition to providing equestrian trailer parking where horseback riding trails are present, horse-friendly materials should be utilized. Spaces should be configured as a series of pull-through parking slots, each with sufficient depth and width for horse unloading and trailer-side tethering. To accommodate overflow parking, supplementary space is advisable. Access to shade and potable water should be a design consideration for equestrian parking areas.
- **Bicycle Racks** – Bicycle racks should be considered for all trailheads permitting bicycle access. They should adhere to context-sensitive design guidelines and be situated in appropriate staging areas.





Camping

Where desired, permitted and appropriate, camping opportunities should be provided.

Primitive Camping – Primitive camping zones feature minimal amenities and are situated in remote areas. Primitive campgrounds should be accessible exclusively by foot, hoof, bicycle or watercraft. Campsites should be visually screened from the main trail. The camping zone must be clearly delineated with signage. Design should account for topography, with level, dry forested areas being preferred. Campsites situated within public agency lands must comply with the regulations of the respective agency. Vertical open spaces to accommodate tents and equestrian areas should be provided. All primitive camping must adhere to the “pack it in, pack it out” policy.

- **Hiking & Cycling** – Where feasible, designated camping areas should be provided for these users. The area must be well-defined to prevent environmental degradation beyond the site. Parking and storage considerations should be addressed for users of these sites.
- **Equestrian** – An area near the camping area should be provided for tying or tethering horses. Camping areas accommodating equestrian use must be well-defined.

- **Amenities** – Fire pits or fire rings should only be installed where permitted. When selecting camping areas, the proximity of natural water systems for potential drinking and cooking water sources should be considered.
- **Location** – Camping zones should be clearly marked and situated a short distance off the main trail.
- **Space Guidelines** – Where appropriate land is available, a designated camping zone consistent with the land’s carrying capacity should be provided. If feasible, multiple sites should be appropriately spaced. Larger areas should be designated for trails with higher usage. Equestrian camping zones generally necessitate more extensive space. Refer to appendices for additional information.

Developed/Group Camping – Developed camping areas should feature amenities. Campsites must be screened from the main trail and the camping zone clearly delineated with signage. Design should account for topography, with level, dry forested areas being preferred. Campsites situated within public agency lands must comply with the regulations of the respective agency. Vertical open spaces to accommodate tents and equestrian areas should be provided.

Camping zones should be designated off the main trail at a short distance. Access for management and emergency vehicles must be incorporated into the design.

- **Amenities** – Amenities may include electrical hookups, water hookups, designated and numbered sites, trailer dump stations, refuse stations, restrooms with showers, picnic tables, fire rings, security, pavilions, cabins, concessions, docks, firewood, stables, corrals and access for management personnel.
- **Location** – Camping zones should be designated off the main trail at a short distance. Access for management and emergency vehicles must be incorporated into the design.
- **Space Guidelines** – Developed camping areas should be designed to accommodate all user groups. Campsites should be constructed to facilitate travel trailers, motor homes, horse trailers and watercraft trailers. Equestrians, cyclists and paddlers will require additional space for racks, stalls, corrals, wash-down areas, hitching posts and trailer parking.





Appendix A: Glossary of Terms

These definitions are widely adopted by trail managers in Florida and have been consistently applied throughout this document.

Accessibility – The design of trails with consideration for every potential user. While not all trails can accommodate all users, designers must prioritize maximum accessibility.

Amenities – Any element employed to enhance the user’s experience and comfort.

Clearance – The horizontal or vertical spatial allowance provided to a user along a trail.

Designated Trail – The State of Florida established a designation program to acknowledge trails of regional and statewide significance. The Department of Environmental Protection’s Office of Greenways and Trails, administers this program. Further information is available at floridagreenwaysandtrails.org.

Ecotone – A transitional zone between two distinct plant communities.

Grade Separation – The term denoting crossings of varying elevations where multiple modes of transportation intersect. Typically, “at-grade” signifies crossing at the same level, “above-grade crossing” implies a bridge and “below-grade” refers to a tunnel or underpass.

Interpretive Sign or Display – An educational sign or display that describes a natural or cultural point of interest located on or adjacent to the trail.

Kiosk – A structure containing informational or interpretive displays.

Multi-use Trail – A non-motorized trail utilized by multiple user groups.

Off-Road Bicycle/Bike – A term used to define a non-motorized bicycle operated on unpaved trails. Synonymous terms include Fat Tire Bike, All-Terrain Bicycle (ATB) and Mountain Bike.

Public Lands – Lands owned or leased by federal, state, county, municipal or other governmental entities.

Private Lands – Land owned by private citizens, businesses, non-profit organizations, etc.



Staging Area – A short-term parking area situated near the trail for equipment offloading.

Stile – A series of steps or rungs facilitating a hiker's passage over a wall or fence.

Trail Degree of Difficulty Rating – A classification of trail difficulty predicated on the abilities of an average user with typical physical capabilities (Different managing agencies use different rating systems to assign degrees of difficulty, refer to page 34 for IMBA Trail Difficulty Rating Systems.)

- **Easy** is characterized as relaxing, presenting minimal difficulties and requiring limited physical exertion.
- **Moderate** is characterized as not requiring excessive or extreme physical exertion.
- **Difficult** is characterized as physically strenuous, requiring substantial or extreme physical exertion.

IMBA Trail Difficulty Rating System



	 EASIEST WHITE CIRCLE	 EASY GREEN CIRCLE	 MORE DIFFICULT BLUE SQUARE	 VERY DIFFICULT BLACK DIAMOND	 EXTREMELY DIFFICULT DBL. BLACK DIAMOND
TRAIL WIDTH	72" (1,800 mm) or more	36" (900 mm) or more	24" (600 mm) or more	12" (300 mm) or more	6" (150 mm) or more
TREAD SURFACE	Hardened or surfaced	Firm and stable	Mostly stable with some variability	Widely variable	Widely variable and unpredictable
AVERAGE TRAIL GRADE	Less than 5%	5% or less	10% or less	15% or less	20% or more
MAXIMUM TRAIL GRADE	Max 10%	Max 15%	Max 15% or greater	Max 15% or greater	Max 15% or greater
NATURAL OBSTACLES AND TECHNICAL TRAIL FEATURES (TTF)	None	Unavoidable obstacles 2" (50 mm) tall or less Avoidable obstacles may be present Unavoidable bridges 36" (900 mm) or wider	Unavoidable obstacles 8" (200 mm) tall or less Avoidable obstacles may be present Unavoidable bridges 24" (600 mm) or wider TTF's 24" (600 mm) high or less, width of deck is greater than 1/2 the height	Unavoidable obstacles 15" (380 mm) tall or less Avoidable obstacles may be present May include loose rocks Unavoidable bridges 24" (600 mm) or wider TTF's 48" (1,200 mm) high or less, width of deck is less than 1/2 the height Short sections may exceed criteria	Unavoidable obstacles 15" (380 mm) tall or less Avoidable obstacles may be present May include loose rocks Unavoidable bridges 24" (600 mm) or narrower TTF's 48" (1,200 mm) high or greater, width of deck is unpredictable Many sections may exceed criteria



Appendix B: Paddling Trail Considerations

This document primarily addresses land-based, unpaved trails. Nonetheless, information pertaining to the development of paddling trails can enhance exposure to natural lands, and their design warrants consideration. Publicly owned waterways frequently possess scenic and recreational attributes, augmenting opportunities for wildlife observation. Florida exhibits a significant diversity of waterways suitable for paddling trails. These include rivers, creeks, lakes, estuaries and coastlines. Paddling trails must comply with state and federal regulations established by the U.S. Coast Guard and the Florida Fish and Wildlife Conservation Commission (FWC). Contact FWC for an in-water informational signage installation permit.

Camping – Where dry land is unavailable along paddling trails; a covered platform may be provided above the high-water mark. A self-contained or equivalent restroom facility should be furnished.

Water Depth – Excluding periods of extreme drought, paddling trails should maintain a minimum depth of six inches.

Portage – Hiking trail guidelines should be applied to land-based portage trails.

Trip Length

- Short to half day..... 2 to 8 miles
- Full day..... 8 to 15 miles
- Overnight..... over 15 miles

Land-based Signage – Signs placed on waterway banks must be visible to paddlers at varying water levels and should adhere to the attachment methods delineated in this document.

In-water Informational Signage – In-water signage is subject to approval by the U.S. Coast Guard and the U.S. Army Corps of Engineers. The following conditions apply to signage for water trails:

- Signs placed in Florida waterways necessitate a permit and must comply with U.S. Coast Guard and FWC regulations. Contact FWC for an installation permit.
- Markers/signs must be positioned exclusively on one side of the paddling trail. They should be



placed on shore or as close as possible to the shoreline to prevent confusion with navigational aids.

- Markers/signs should be situated outside the main body of water to avoid becoming a hazard to navigation and/or safety for powered vessels.
- Markers/signs should have a minimum dimension of 12 inches by 12 inches and a maximum of 18 inches by 18 inches.
- Markers/signs should feature a white reflective background with an international orange border, black block characters and brown crossed kayak and canoe paddles (to be utilized on signs only).
- Markers/signs should be mounted on a minimum of Schedule 40 PVC pipe, 4 inches in diameter.
- Pile markers/signs are recommended in areas lacking available facilities or where installation of larger signage is impractical. Minimum Schedule 40 PVC pipe, at least 6 inches in diameter, should be utilized. Markings on pile markers/signs must feature a white reflective background with an international orange border, black block characters and brown crossed kayak and canoe paddles. For additional information, visit myfwc.com/boating/waterway/markers/.

Water Crossings – When traversing paddling trails, a minimum of 4 feet of vertical clearance must be maintained under a bridge at the seasonal high-water mark. Bridges with an elevation exceeding 36 inches above grade or crossing swift-moving water shall incorporate railings with a minimum height of 42 inches.

Appendix C: Works Cited

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