

Applying the Forest Service Outdoor Recreation Accessibility Guidelines

The first step in applying the FSORAG is to know when and where compliance is required. Sections 1.0 *General* and 1.1 *Extent of Application* state that newly constructed and altered camping facilities, picnic areas, constructed features, beach access routes, and outdoor recreation access routes (ORARs) under Forest Service jurisdiction must comply with sections 1 through 6 of the FSORAG. Every bit of public land does not need to be developed, but if we build something, we need to build it for everybody (figure 24).



Figure 24—Universal design makes sense.

The FSORAG is based on the realities of the outdoor environment. It recognizes that accessibility isn't feasible everywhere because of the limitations imposed by natural terrain, existing vegetation, or other constraints. To ensure that the unique characteristics of the outdoor environment and recreation opportunity at a site aren't compromised or fundamentally altered, exceptions and deviations from some technical provisions are permitted where certain circumstances, called conditions for departure from the guidelines, apply. Conditions for

departure apply only where there is an exception detailed in the technical provision sections for a particular recreation feature.



BUDGET TIP—

Is cost an excuse?

If making a new or renovated recreation area accessible adds to the cost, can we claim that it would be an “undue financial burden” and continue without making the area accessible?

No we can't. When a Federal agency, such as the Forest Service, is funding a project, cost cannot be used as the reason for failing to make the project accessible, unless the cost of making the project accessible would have a significant adverse impact on the agency's entire budget. Situations where this would apply are quite rare.

Using the Conditions for Departure in the FSORAG

Although conditions for departure allow for exceptions and deviations due to limitations imposed by the environment, they are not a blanket exemption from the technical provisions. The deviations permitted by conditions for departure should only be used after all other design options to provide accessibility have been thoroughly explored. Deviations are permitted only where an exception is allowed for that particular feature and is needed in the specific area being designed. If a condition for departure exists only on part of the feature, the technical provision applies to the rest of the feature and all the technical provisions that are not affected by the condition for departure apply as well.



DESIGN TIP—

Where do conditions for departure apply?

A good way to get a handle on where a condition for departure applies and where it might not is to consider an example. A renovation project at San Antonio Campground in the Santa Fe National Forest in the Southwestern Region includes a walk-in camping unit where a portion of the outdoor recreation access route (ORAR) is located on extremely steep ground, and there's no way to relocate the ORAR to flatter land. The terrain makes it impossible to meet the technical provision for running slope without severe cuts or fills.

Using the definitions in the FSORAG, the project is an alteration. *Section 2.2 Slopes* of the FSORAG allows an exception from the slope requirement at existing recreation sites that are being altered, where a condition for departure exists. A review of *Section 1.1 Conditions for Departure* indicates that the condition for departure 2 applies to the section of the ORAR that is on steep ground because the cuts and fills necessary to meet the slope provision would substantially change the nature of the setting.

A deviation from the slope provision is permitted for the steep section of the ORAR. However, all other technical provisions for an ORAR such as width, surfacing, and cross slope, must be met. Where the terrain is flatter and the cuts and fills aren't an issue, the technical provision for slope must be met. The exception to the slope provision for the ORAR to this particular walk-in campsite doesn't apply to other campsites at this campground. The ORAR to each campsite must be examined individually to determine if a condition for departure exists that would permit an exception to any provision.

Four conditions for departure permit deviations from specific technical provisions where they are allowed by an exception. Examples are provided to explain the intent of the conditions for departure.

1—Where compliance would cause substantial harm to cultural, historic, religious, or significant natural features or characteristics.

Cultural features include areas such as archeological sites, burial grounds and cemeteries, traditional cultural properties, and tribal protected sites. Historical features are properties listed or eligible for listing on the National Register of Historic Places or other places of recognized historic value. Religious features are tribal sacred sites and other properties considered sacred by an organized religion. Significant natural features are objects such as a large boulder or rocky outcrop, body of water, or unique vegetation that are regarded as distinctive or important locally, regionally, or nationally (figure 25). Areas protected under Federal or State laws, such as habitat for threatened or endangered species or designated wetlands, also could be considered significant natural features.

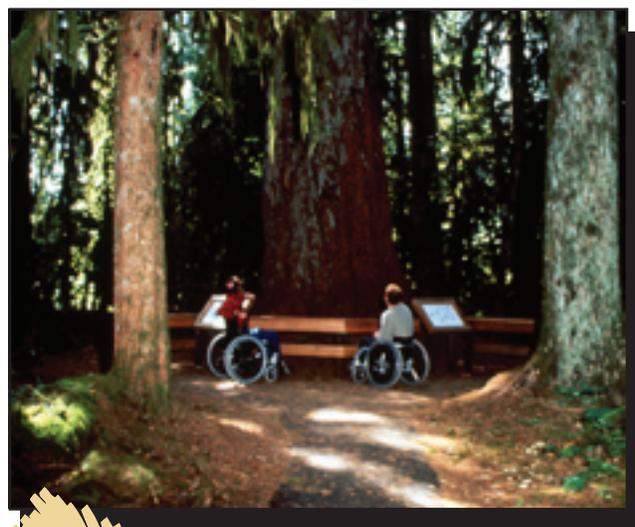
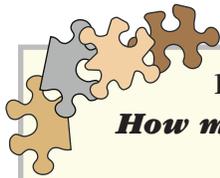


Figure 25—Properly developed recreation features don't harm significant natural vegetation.

If the significant feature would be directly or indirectly harmed in the process of providing accessibility, this condition for departure would apply. Consider only the additional impact of change necessary to provide accessibility. This condition for departure doesn't apply where substantial impact will result from construction of features that are not accessible and construction directly related to accessibility adds just a little more impact.



**DESIGN TIP—
*How much is too much?***

The harm that is to be considered by this condition for departure is only the additional impact of increasing the size, relocating the recreation feature, or other change necessary to provide accessibility. For instance, there may be concern about the number of trees of an uncommon species being removed to make way for an accessible campsite because removal will cause substantial harm to a significant tree grove. This condition for departure wouldn't apply if 15 trees must be removed to make way for a campsite that is not accessible and only three more trees must be removed to provide for one that is. The majority of the proposed damage to the grove is due to construction of the campsite, not due to compliance with accessibility requirements. In this case, an alternate location should be selected for the campsite.

2—Where compliance would substantially change the nature of the setting or the purpose of the facility or a portion of the facility, or would not be consistent with the applicable forest land and resource management plan for the area.

Public lands provide a wide variety of recreational settings, from highly developed campgrounds with plenty of opportunities to relax with family and friends, to wilderness areas that appear unchanged from primeval times with opportunities to experience primitive and challenging conditions (figure 26). The FSORAG recognizes the value of a wide array of recreational opportunities by allowing exceptions where compliance with technical provisions would unacceptably change the



Figure 26—People who recreate in primitive areas may be looking for risk and challenge.

nature of recreation opportunities or conflict with the land and resource management plan for the area.

Campers in a primitive setting experience the outdoor environment in a nearly natural state, with limited or no development. These campers generally desire challenge and risk so they can use their outdoor survival skills. Use of manufactured building materials or engineered construction techniques to comply with accessibility requirements could destroy the natural or undeveloped nature of the setting. There is no requirement to use drastic measures to provide accessibility if doing so would unacceptably change the character of the setting and the recreation opportunity.



DESIGN TIP—

Looking at the full range of issues

Designers and managers need to examine the larger context and intent of the project to determine whether this condition for departure applies. The full range of management and design issues must be considered. Consideration of impacts should begin during planning and continue throughout all stages of design development.

Consider existing and desired levels of development and site modification as identified in ROS classifications, visitor expectations, customer service, and so forth. Take into account how the site will be used. Will it be a jumping-off point to a wilderness where campers bring lightweight, compact equipment, or will it be a social gathering place where visitors bring a good portion of their worldly possessions and expect to have a place to set them up?

This condition for departure would apply differently to a setting that has little or no human-influenced modifications than it would to a setting that has already been moderately or heavily modified, such as a recreation site.

3—Where compliance would require construction methods or materials that are prohibited by Federal, State, or local law, other than State or local law whose sole purpose is to prohibit use by persons with disabilities.

This condition for departure can be illustrated by example. For instance, use of mechanized equipment is prohibited in congressionally designated wilderness areas. If work necessary to comply with a technical provision can't be accomplished using handtools, this condition for departure will apply in wilderness areas.

This condition for departure may also apply in:

- Areas where imported materials, such as soil stabilizers, are prohibited to maintain the integrity of the natural ecosystem or historic resources.
- Designated wetlands or coastal areas where construction methods and materials are strictly limited.
- Areas where Federal statutes such as the Wilderness Act, the Endangered Species Act, or State and local laws impose restrictions to address environmental concerns.
- Areas where water crossings are restricted to safeguard aquatic features protected under Federal or State laws.

Local law has been included in this condition for departure to address situations where conservation or scenic easements or development programs have prohibited or restricted construction methods and practices. For example, where land is purchased from farms, certain use restrictions may prohibit importing surfacing materials.

On the other hand, under the Americans with Disabilities Act, State and local governments may not establish laws whose sole purpose is to prohibit use by people with disabilities. Therefore, such laws may not serve as a basis for deviation from the technical provisions in the FSORAG.

4—Where compliance would be impractical due to terrain or prevailing construction practices.

The phrase *would be impractical* in this condition for departure refers to something that isn't reasonable, rather than to something that is technically impractical. The intent of this condition for departure is that the effort and resources required to comply shouldn't be disproportionately high relative to the level of access established.

For example, when renovating an ORAR, compliance with the technical provisions, particularly those pertaining to running slope in areas of steep terrain, may require extensive cuts or fills that would be difficult to construct and maintain and that would cause drainage and erosion problems in highly susceptible soils. If compliance with the FSORAG requires techniques that clash with the natural drainage or existing soil, then the ORAR will be difficult—if not impossible—to maintain.

This condition also may apply where construction methods for particularly difficult terrain or an obstacle would require the use of equipment or methods other than that typically used in that setting. In an area where small equipment is normally used to minimize impact on a sensitive adjacent stream, blasting might be necessary to remove a rock outcrop. Because blasting typically would not be used in this situation, this condition for departure would apply. If the work could be done using small equipment, the condition for departure wouldn't apply.

This condition for departure isn't intended to exempt an area from the technical provisions simply because of preferred construction practice. A contractor may prefer to use a large mechanical roller for efficiency rather than a smaller vibrating plate or impact-type compactor that might be more appropriate in some settings. A contractor's or designer's preference for the larger equipment isn't a feasibility issue.

Getting From Here to There—Outdoor Recreation Access Routes

Section 2.0 of the FSORAG defines an outdoor recreation access route (ORAR) as a continuous, unobstructed path intended for pedestrian use that connects constructed features within a picnic area, camp living area, trail-head, or other recreation site where modifications are

provided for visitor convenience and comfort. Figure 27 shows an ORAR connecting a parking lot and scenic overlook. ORARs must meet the required provisions for accessibility.

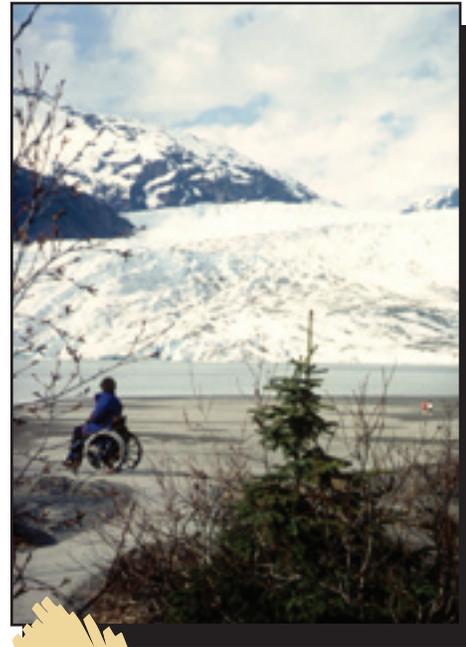


Figure 27—There would be no point in providing a viewing area for the gorgeous Mendenhall Glacier in Alaska if people couldn't get there from the parking area. ORARs are all about getting around.

Forest Service recreation sites are described using a six-level development scale ranging from 0—*No site Modification* to 5—*Extensive Site Modification*. Site modifications are provided for visitor convenience and comfort in recreation sites with development levels 3, 4, and 5. Rustic or rudimentary site modifications may be provided for resource protection at level 2 or less. Definitions of each level of the Forest Service's recreation site development scale are available at http://www.fs.fed.us/r3/measures/Cost/Infra_Files/APPENDIX%20H_Levels%20of%20Site%20Modification.doc.

General forest areas (GFAs) are nonwilderness National Forest System lands that are available for recreation use, where structures are built only when they are

required for resource protection. These minimal developments, which may include picnic tables, fire rings, or toilet structures, are level 2 or less on the Forest Service recreation site development scale. ORARs are not required in GFAs.

In recreation sites, ORARs ensure that visitors can move independently from their camping or picnic spot to the other constructed features provided at the site or from the parking area to any constructed features. ORARs must meet requirements for running and cross slopes, resting intervals, surface, clear tread width, passing spaces, tread obstacles, protruding obstacles, openings, edge protection, and stairs.

Slopes and Resting Intervals for ORARs

ORARs are to be designed with a running slope ratio of 1:20 (5 percent) or less (figure 28). Steeper terrain may make this difficult to achieve. Visitors can negotiate steeper slopes for short distances, so running slopes up to 1:12 (8.33 percent) are permitted for up to 50 feet (15 meters), and running slopes of up to 1:10 (10 percent) are permitted for up to 30 feet (9 meters). To ensure that the ORAR isn't designed as a series of steep segments, no more than 15 percent of the total length of the ORAR may exceed a slope of 1:12 (8.33 percent). Running slope is the lengthwise slope of an ORAR, parallel to the direction of travel.

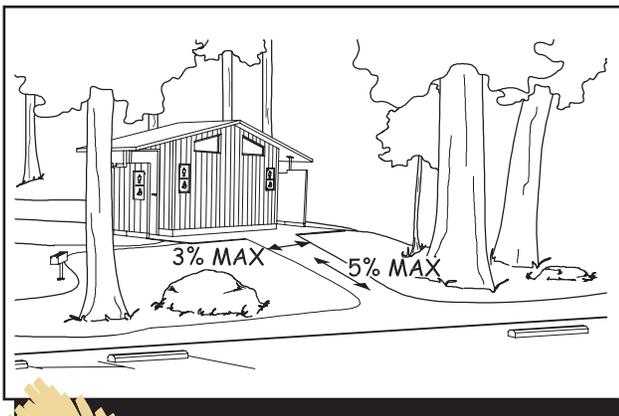


Figure 28—Determining the slope ratio.

Cross slopes—the side-to-side slope of an ORAR—can't exceed 1:33 (3 percent, see figure 28), although an exception permits a cross slope of up to 1:20 (5 percent) if necessary for proper drainage.



CONSTRUCTION TIP—

What is a slope ratio?

Slopes are often described as a ratio of vertical distance to horizontal distance, or rise to run. For instance, a slope of 1:20 means that for every 1 foot of vertical rise, there are 20 feet of horizontal distance, or for every meter of vertical rise, there are 20 meters of horizontal distance (figure 29).

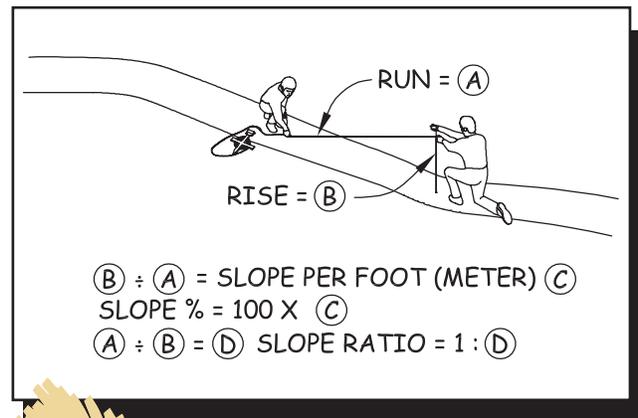


Figure 29—The basic slope requirements for ORARs and beach access routes.

Resting intervals are relatively level areas that provide an opportunity for people to catch their breath before continuing along the ORAR. These intervals are required any time the running slope exceeds 1:20 (5 percent). A resting interval must be at least 60 inches (1,525 millimeters) long and at least as wide as the ORAR leading into it.

The slopes of a resting interval can't exceed 1:33 (3 percent) in any direction (figure 30).

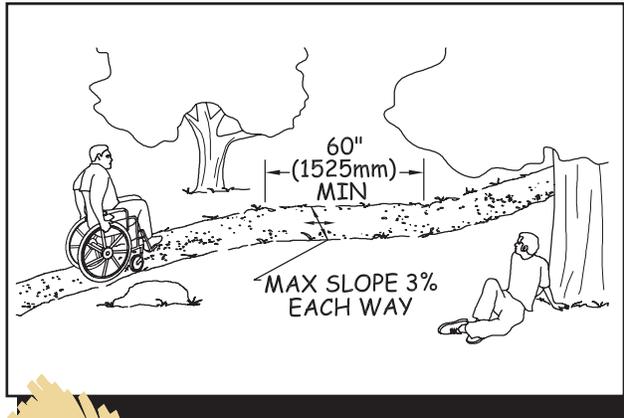


Figure 30—The basic resting interval requirements for ORARs.

Where running slopes are between 1:20 (5 percent) and 1:12 (8.33 percent), resting intervals must be provided at least every 50 feet (15 meters). For slopes from 1:12 (8.33 percent) to 1:10 (10 percent), resting intervals must be provided at least every 30 feet (9 meters). Depending on the design and location, the intersection of two ORARs may act as a resting interval.

Meeting the slope requirements for an ORAR may be more difficult when altering an existing site than it would be in new construction. Accessibility was seldom considered when older recreation sites were designed. Many campgrounds and picnic areas were located in spectacularly scenic settings, but on steep terrain. Complying with the slope provision in these areas may be difficult without a fundamental change to the recreation environment, so exceptions are provided for alteration projects where a condition for departure exists. This is one of only two instances where the FSORAG makes a distinction between new construction and alterations. The second exception is campground alterations, discussed later in this chapter.

In alterations only and where a condition for departure exists, exceptions are provided that permit running slopes up to 1:12 (8.33 percent) for 100 feet (30 meters), and up to 1:10 (10 percent) for 50 feet (15 meters). When these slopes are used, resting intervals are required every

100 feet (30 meters) and 50 feet (15 meters), respectively. Even with those exceptions, it may still not be possible to comply with the slope provision without drastically affecting the site. In these cases, a general exception to the entire slope provision is included if a condition for departure exists.

Where this occurs, the ORAR doesn't have to meet any of the slope requirements. However, designers should attempt to comply with the general slope requirement first, then each exception in order, to assure that the final design meets the highest possible technical provisions.

This exception **does not apply** to new construction. When planning for a new facility, the natural terrain and the general accessibility of the area itself should be part of the site selection criteria because compliance with ORAR provisions is required for new construction.

DESIGN TIP—

When should handrails be used on outdoor stairs?

The use of outdoor stairs should be avoided wherever possible. Sometimes, an alteration project at an existing recreation site includes an area where stairs can't be avoided. The amount of use, safety, and the avoidance of the appearance of over development all are important considerations when deciding whether handrails are necessary and how many should be provided. For example, 5-foot wide stairs at a campsite may have just one handrail in the center to accommodate low-volume, two-way traffic. Treads that are just wide enough for one-way traffic could have one handrail. Two handrails may be needed if stairs are provided in high-traffic areas.

Handrails are not required for stairs in GFAs. Handrails may be provided if they are needed for safety.