



## Chapter 9—

# Designing Camp and Picnic Units

Camp units are designed for overnight use and may include a parking pad. Picnic units generally are for day use only. Equestrian camp and picnic units do not have to be elaborate to be comfortable and convenient for both riders and their stock.

## Camp Parking Pads

Two common parking configurations used in equestrian campgrounds are back-in (figure 9-1) and pullthrough parking pads (figure 9-2). Drivers often prefer pullthrough parking pads, because they are easier to navigate with a horse trailer in tow. Pullthrough parking pads include an island, which serves as a buffer to keep stock away from the road when they are tied to a horse trailer. Preserve existing vegetation in islands to increase campers' privacy.

Even though backing a horse trailer can be awkward, some drivers prefer back-in parking pads, because the trailer ends up farther from the road. Provide both pullthrough and back-in parking pads, and include a variety of parking pad sizes to accommodate single-party, double-party, and several-party groups. Allow the topography and vegetation to determine the size and type of parking pad at individual locations. The recommended surface material for parking pads is aggregate (see *Chapter 6—Choosing Horse-Friendly Surface Materials*).

Some equestrian parties travel in more than one vehicle when they camp. Several people may arrive in the vehicle towing the horse trailer, and others may be in a passenger vehicle. When planning camp units, visit with local riders. If users often travel in more than one vehicle, design some back-in parking pads with an added parking space for a passenger vehicle. Plan some pullthrough parking pads with enough extra length to accommodate a second vehicle. When the transition between the pullthrough parking pad and the road has a mild slope, extra vehicles can park there. If there is enough demand, include a few extra parking spaces in the campground.

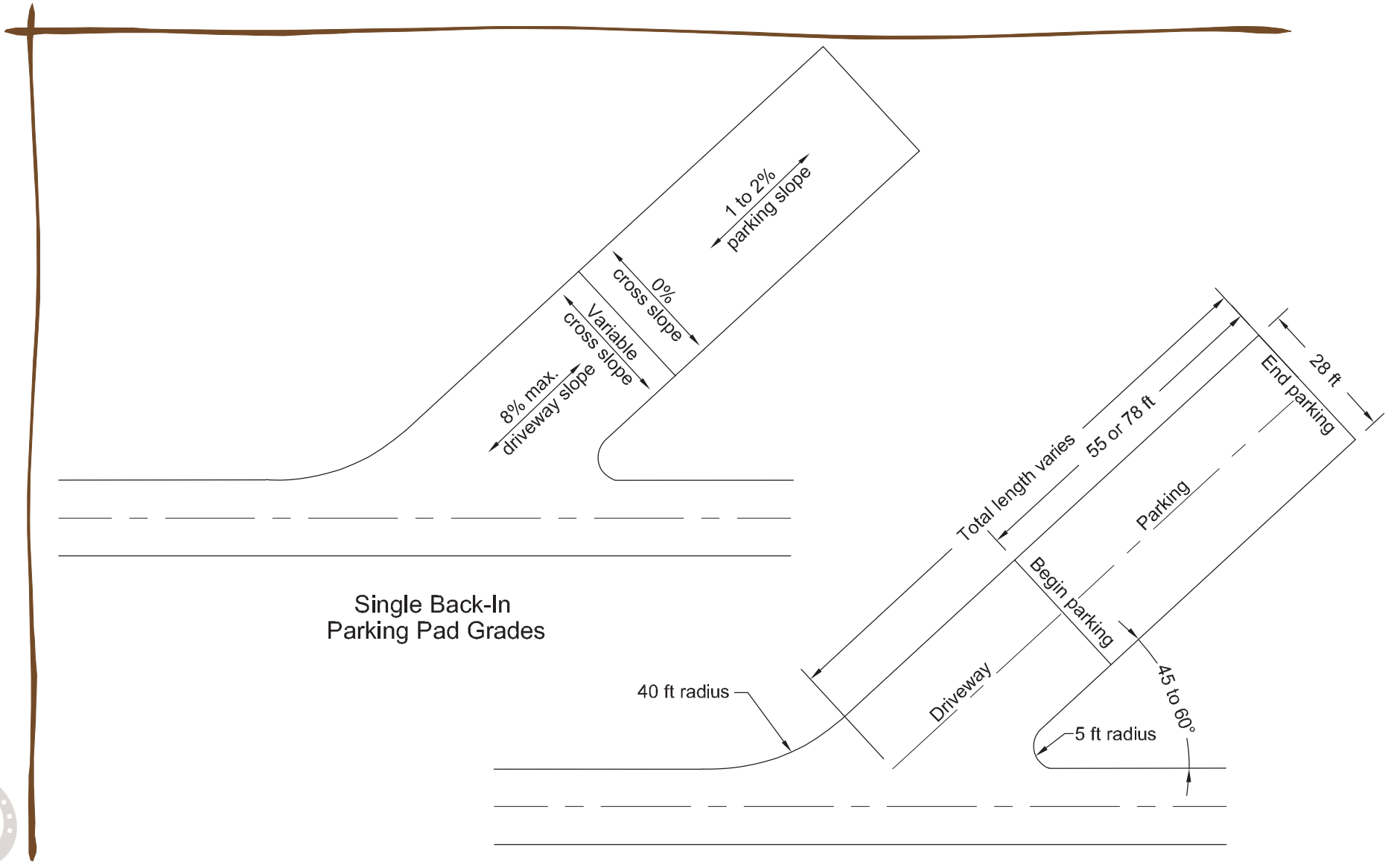


## Lingo Lasso

### Outdoor Living

This guidebook uses the following terms to describe areas in equestrian recreation sites:

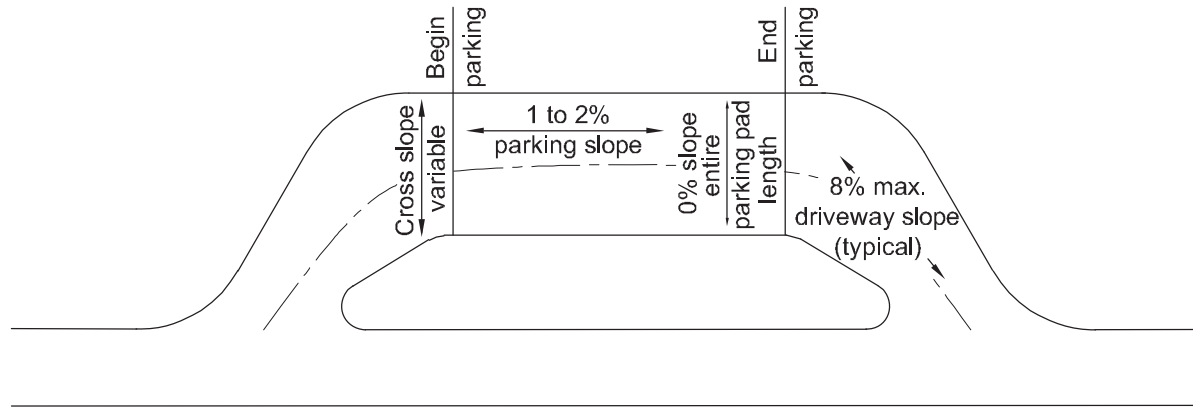
- ☆ *Living area*—A defined space for campers or picnickers. Furnishings, such as picnic tables, are included in a living area.
- ☆ *Horse area*—A defined space for horses and mules while their riders are camping or picnicking. A horse area has a way to confine stock, such as a corral or highline.
- ☆ *Parking pad*—A defined space in a camp unit where a towing vehicle and a horse trailer can be parked. Parking pads can be configured for pulling through or backing in.
- ☆ *Parking space*—A defined space for a vehicle in a day use area or at a trailhead. Parking spaces can be configured for pulling in, pulling through, or backing in.
- ☆ *Tent pad*—A defined area for a tent.
- ☆ *Camp unit*—A defined area that includes a parking pad, living area, tent pad, and horse area.



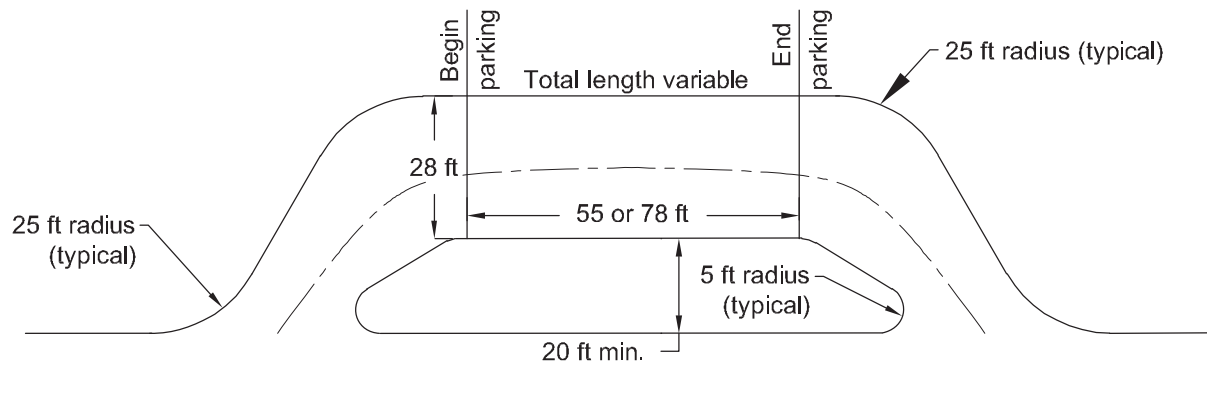
Single Back-In  
Parking Pad Grades

Single Back-In  
Parking Pad Dimensions

Figure 9-1—A parking pad in a single back-in spur—dimensions and grades.



### Single Pullthrough Parking Pad Grades



### Single Pullthrough Parking Pad Dimensions

Figure 9-2—A parking pad in a single pullthrough space—dimensions and grades.



### Placement of Camp Parking Pads

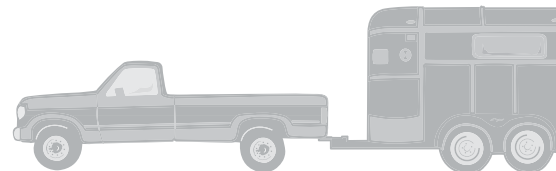
The general guide in campground design is to locate parking pads on the passenger side of the road and living areas on the passenger side of parked vehicles. This is because doors to tack storage, living quarters, and dressing rooms frequently are on the passenger side of horse trailers and the vehicles block the view from the road. This layout works well on a two-way road where drivers can park with the passenger side of their vehicle next to the living area (figure 9-3, parking pads A, B, C, and D). To make the best use of space along one-way roads, parking pads are placed on both sides of the road. When back-in parking pads are on the driver's side of the road, living areas end up between the parking pad and

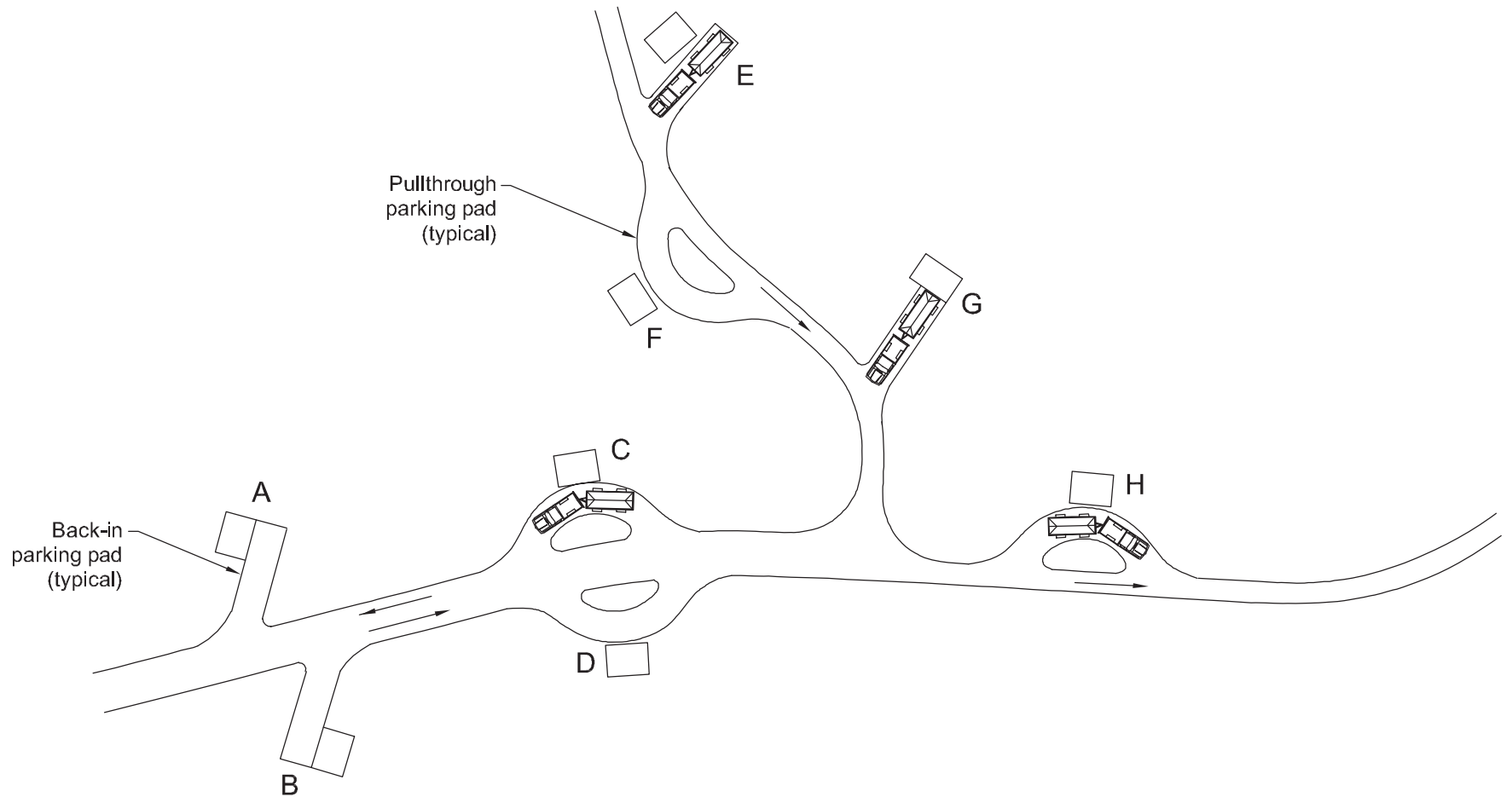
the road, close to the road (figure 9-3, parking pad E). These camp units are fully functional, but not as desirable. To make them more appealing, place the living area at the end of the pad, farther from traffic (figure 9-3, parking pad G). The living area is on the passenger side of the vehicle in pullthrough parking pads placed on the passenger side of a one-way road (figure 9-3, parking pad F). This is ideal. In figure 9-3, parking pad H has a pullthrough parking pad on the driver's side of the road with a living area on the driver's side of the vehicle. This configuration is less desirable because the doors to storage and living quarters are on the far side of the trailer, close to the road.

Topography, vegetation, and level of development affect placement of the parking pad. Avoid drainages and low spots. The sparser the vegetation, the wider the ideal separation between parking pads. In an area with a low level of development, riders expect some privacy while camping. In an area with a high level of development, they expect interaction with neighboring campers. Table 9-1 shows the suggested minimum spacing distance between parking pads.

Table 9-1—Suggested minimum spacing between parking pads.

Level of development	Back-in parking pad (Centerline to centerline in feet)	Pullthrough parking pad (Centerline to centerline in feet)
Low	100 to 150	160 to 210
Moderate	70 to 100	130 to 160
High	40 to 70	100 to 130





No Scale



Figure 9-3—On two-way roads, all parking pads and living areas can be located on the passenger side, as shown in A, B, C and D. Some living areas on one-way roads end up between the parking pad and the road, as seen in E. This configuration offers less privacy. A better option is to locate the living area at the end of the parking pad, as shown in G. The living area in F is attractive because the vehicle blocks the living area from the road. The living area in H is on the driver's side of the vehicle, where it is less convenient for unloading items.



### Grades for Camp Parking Pads

For improved safety and comfort, an equestrian parking pad should be somewhat level. The recommended grade for parking pads is 1 to 2 percent, the same as in a parking area. At sites with steep slopes, it may be difficult to construct level parking pads without a great deal of cut or fill. In such situations, the driveway between the road and parking pad can have a steeper grade. Wayne Iverson (1985) suggests a maximum grade of 8 percent for driveways to parking pads (see figures 9-1 and 9-2). In steeper terrain, the slope can be up to 10 percent. This flexibility makes it easier to join the driveway slope to the road grade without a significant amount of earthwork. The cross slopes on parking driveways must not exceed 2 percent. Accessibility guidelines also require grades within this range.

### Living and Horse Areas

When planning living and horse areas, considerations include the physical characteristics of the site and the preferred distance between riders and their stock. The distance between living and horse areas takes safety into consideration.

### Sun and Wind

Place the living and horse areas to take advantage of morning sun and afternoon shade. Canopy trees should cast shade into these areas during the heat of the day, especially if no shelters are provided. Keep

local weather patterns and prevailing winds in mind. Locate horse areas downwind of living areas. Situate fire rings and grills so smoke doesn't blow across picnic tables, tent pads, and horse areas (figure 9-4).

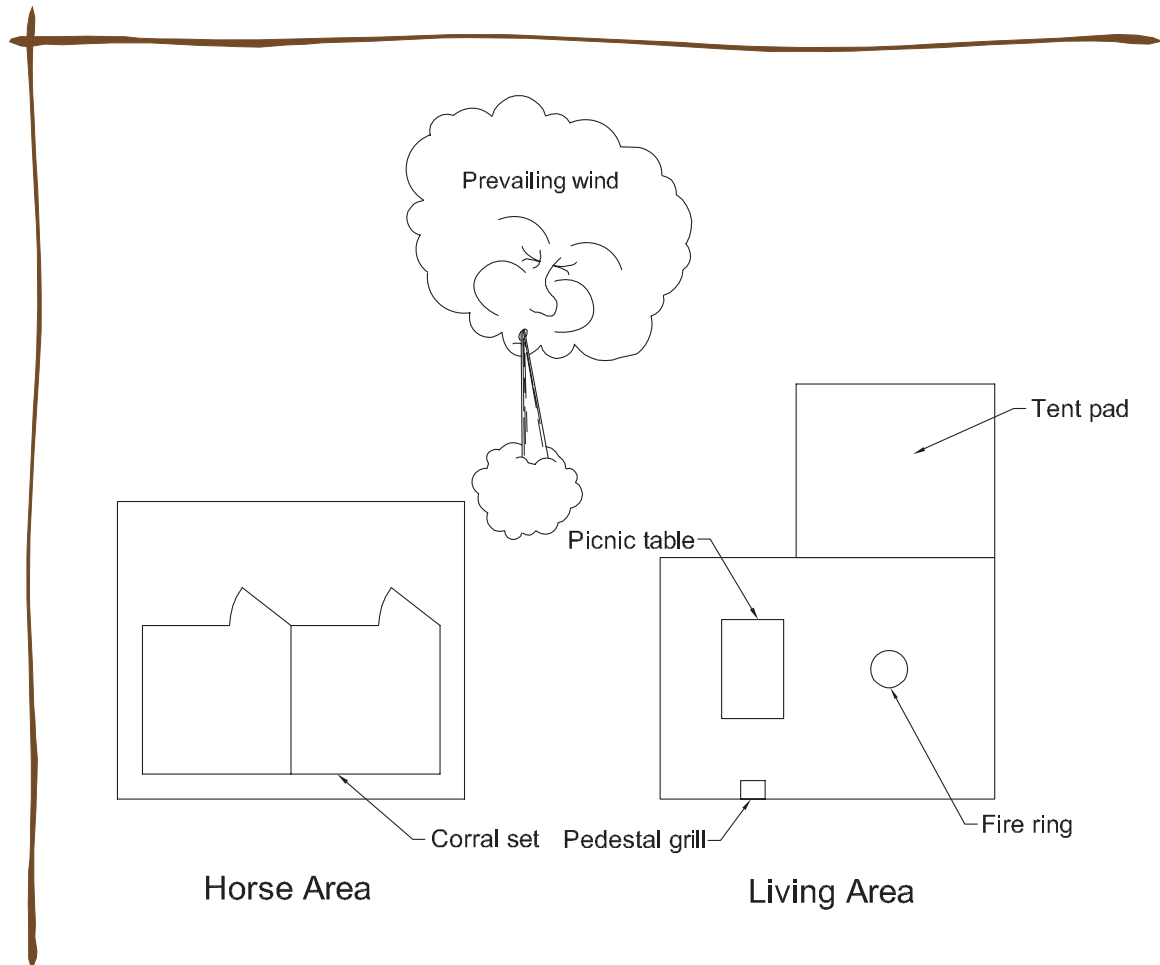


Figure 9-4—A suggested layout for living and horse areas. Placing the areas as shown avoids problems with windblown smoke and odors.



## Site Vegetation

If existing vegetation is sparse, minimize plant removal by locating living areas and tent pads in natural openings. If the design includes new landscaping, incorporate indigenous species. Preserve existing trees and understory plants as visual barriers between adjoining living areas.

To avoid damage to vegetation, don't locate horse areas close to desirable plants. Horses may eat plants within reach. Provide vegetation-free zones around horse areas. The zone should be at least 7 feet (2.1 meters) on all sides and 12 feet (3.6 meters) high. Base the distance on the mature size of plants.

## Slopes

Living and horse areas need to be somewhat level. Slope horse areas so they drain away from living areas. The recommended slope for living areas is 1 to 2 percent. Slopes in this range allow rainwater and horse urine to drain. Accessibility guidelines for many features also require grades in this range, in addition to other considerations. When living areas and tent pads are placed on a slope steeper than 2 percent, they may need to have retaining walls (figure 9–5). Select wall materials that are appropriate for the setting and the level of development.



Figure 9–5—Retaining walls may be necessary for living areas in sloped terrain.

## Distance Between Horse Areas and Living Areas

Many riders want to be as close as possible to their stock; others prefer some distance between living and horse areas. Most riders want to see and monitor their stock from the living area, tent pad, or horse trailer. Figure 9–6 shows a popular campground unit with a horse area that is 5 feet (1.5 meters) from the living area. To some riders, that would be too close—keeping the horse area up to 50 feet (15.2 meters) away would be preferable. Visit with local user groups to determine their preferences. Provide a range of distances in the campground so campers can choose a campsite that meets their needs. Highly developed sites with many visitors usually have tighter spacing than less developed sites.



Figure 9–6—When horse areas are close to living areas, riders can easily monitor their stock. —*Courtesy of Janet Grove.*

The appropriate distance between a horse area and a living area also varies with the amount of existing vegetation. For visibility, the denser the vegetative screening, the closer stock need to be to the living area.

In camp units, locate the horse areas close to parking pads for convenient access to feed and supplies (figure 9–7). In group camps, riders generally tie their stock to trailers, but they also appreciate horse areas. If horse areas are provided, they should be located around the perimeter of the parking area. The corrals shown previously (see figure 7–7) are in the parking area because the slopes around its perimeter are too steep. When using this approach, make the parking area large enough to handle the added use.



In day-use sites, most riders tie their horses to the trailer for short periods. Horse areas may be unnecessary. If the day-use site has a picnic area,

horse areas may be desirable. Visit with local riders to discuss their preferences.

## Surfaces

In areas where native soils don't drain well, apply suitable surface materials to horse areas and living areas. Surface materials help define these areas, enhance wear, reduce dust, and are easier to maintain in high-traffic areas. Where there is grass, additional surface materials may be unnecessary. However, if the living areas receive heavy use, grass will wear quickly.

The surfaces in horse areas should be relatively soft so stock can roll comfortably after a ride, lie down to sleep, or stand comfortably for long periods. Generally, the finer the surface material, the easier horse manure can be removed. Suitable materials include wood chips and shavings, loose aggregate, pea gravel, and soil. If aggregate is used, compaction is not appropriate—the surface would be too hard. Avoid using concrete or asphalt because these materials are slippery when wet, don't absorb urine or rainwater, and are too hard. Avoid using sand because horses and mules can become ill if they eat it.



Figure 9-7—Horse trailers, such as this slant-load model, often have tack storage that is accessed through side or rear doors.





Usually the most economical and effective surface material for living areas is compacted crushed aggregate with fines. With good compaction, crushed aggregate with fines produces a firm and stable surface—one of the requirements for accessibility. In highly developed recreation sites, it may be more feasible to pave the accessible living area. Concrete,

asphalt, or a surface material mixed with a stabilizer will be easier to maintain. It may be necessary to pave a heavily used group gathering area.

Edging around the perimeter of the living and horse areas contains loose surface materials, defines the areas, and protects them. Suitable edge materials

include steel, wood, recycled materials, or concrete curbs—choose whichever is appropriate for the climate and level of development. Regardless of the material, install edging somewhat flush (figure 9–8) with the living area so it does not pose a tripping hazard for stock or riders.

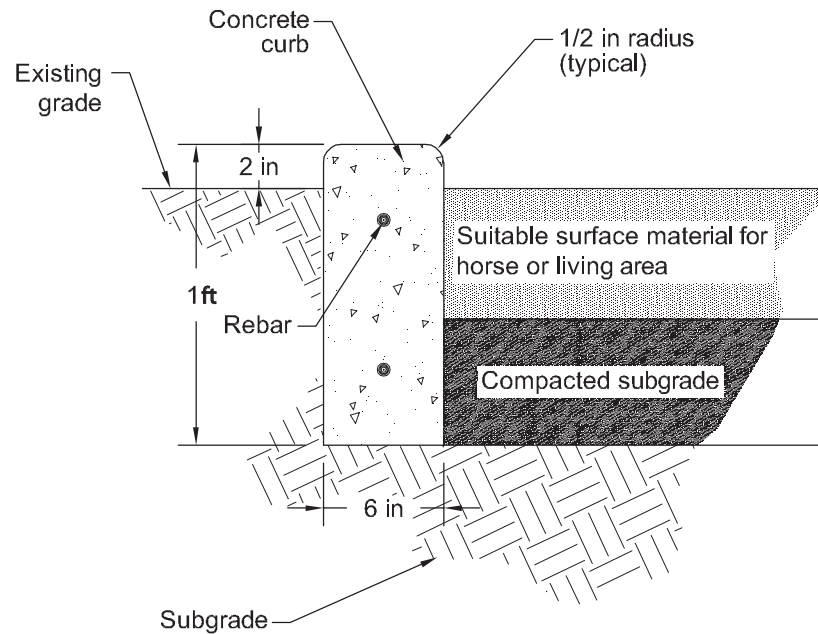


Figure 9–8—Concrete edging for a living area. To prevent tripping, install the edging so it is reasonably flush with surrounding surfaces.



## Horse Areas

A horse area must provide a way to confine horses and mules. At camp units with vehicle access, the three main options for securing an animal overnight are to:

- ☆ Tie it to the horse trailer.
- ☆ Tie it to a highline.
- ☆ Place it in a corral.

Meet with local riders and determine their preferences. If opinions are mixed, provide options—corrals in some units and highlines in others. Accommodate stock tied to trailers in all units because stock usually have to be tied to a trailer when preparing for a ride. If corrals are made of portable panels with temporary posts, install a hitch rail nearby where stock can be tied (figure 9–9). Hitch rails are much sturdier and safer for tying stock than portable corral panels.

Stock generally are not tied to hitch rails for very long. Arenas and round pens are used for exercising and training stock, not for confining them. For more information about confinement and staging areas, see *Chapter 10—Securing Horses and Mules* and *Chapter 8—Designing Roads and Parking Areas*.



Figure 9–9—Unless they have permanent posts, portable corrals are not strong enough to be used for tying stock. A separate hitch rail is much sturdier and safer.



Figure 9–10—This camp unit has an attached living area adjacent to the parking pad.

## Camp Units

The best camp units are designed in the field to take advantage of the individual site’s conditions.

Place living areas, horse areas, and tent pads in natural openings to minimize removal of vegetation and make each camp unit unique. Locate the living area adjacent to the back-in or pullthrough parking pad (figure 9–10), or detach the living area from the parking pad (figure 9–11). If the living area is detached, a 3- to 4-foot- (0.9- to 1.2-meter-) wide pathway can connect the living area to the parking pad. Ideally, the horse area is adjacent to the parking pad, making it easy for equestrians to reach their trailer, where they store feed and equipment.



Figure 9–11—This detached living area is a short distance from the parking pad.



Most camp units include site furnishings, such as a picnic table, a grill, and a fire ring. Place these amenities at least 4 feet (1.2 meters) away from the edge of living areas and from each other. If space allows, place them 5 to 7 feet (1.5 to 2.1 meters) from the edge and from each other. Pedestal grills that rotate require at least 4 feet (1.2 meters) of clearance on all four sides, and 5 feet (1.5 meters) of clearance is preferred. Stationary grills require 4 feet of clearance in front, and 5 to 7 feet (1.5 to 2.1 meters) is preferred. Separate picnic tables by 5 to 7 feet also. Figure 9–12 shows a living area layout. Figure 9–13 shows a camp unit with a low level of development, and figure 9–14 shows a camp unit with a high level of development.

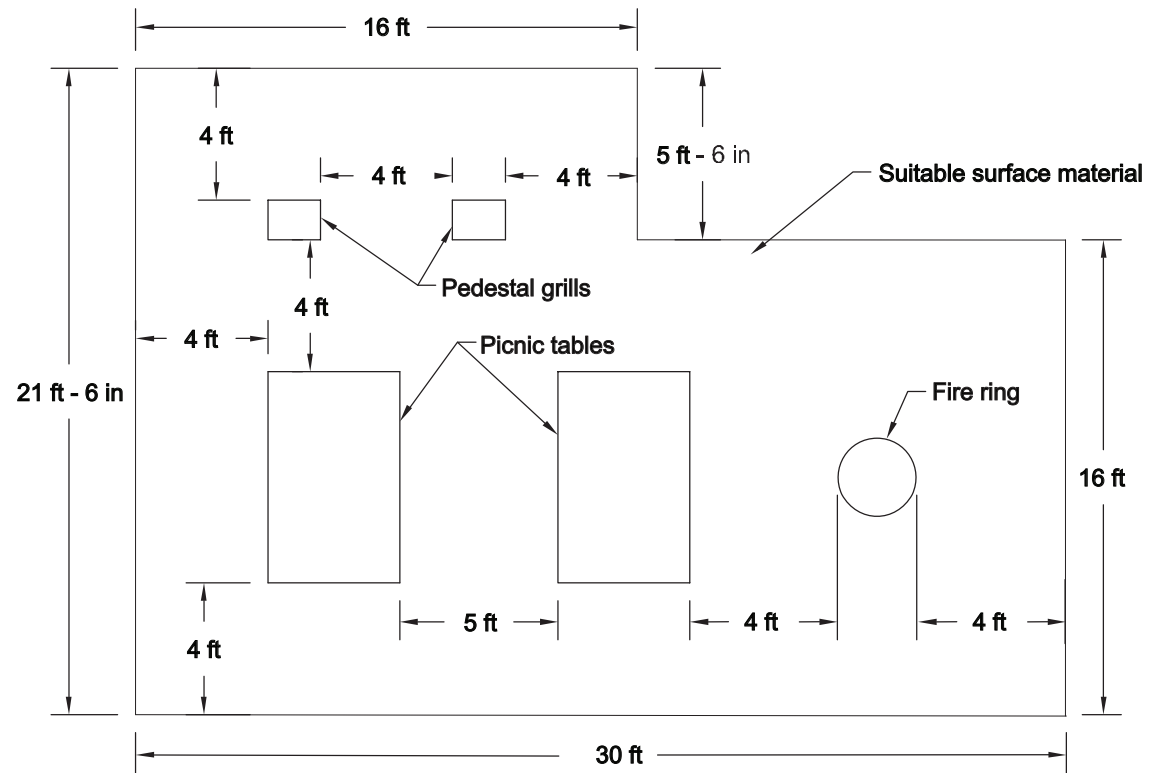


Figure 9–12—The living area for a double-party camp unit. The suggested dimensions are minimums. In some situations, space may allow a larger living area.





Figure 9–13—This camp unit has a low level of development that meets the basic needs of campers and their stock. Water for stock is located a short distance away.



Figure 9–14—This camp unit features many conveniences suitable for a recreation site with a high level of development. —Courtesy of Janet Grove.

Provide tent pads that are at least 14 by 16 feet (4.3 by 4.9 meters). Tent pads consist of a separate unit that may be attached to a living area. Place tent pads near the camp living area in a single-party camp unit. In a group camp, locate them around the parking area perimeter. This placement makes it easier for riders to monitor stock tied to trailers.

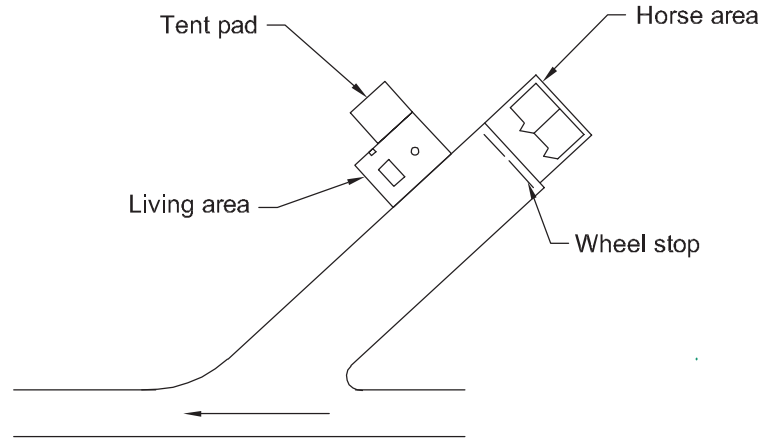


### Sizes of Camp Units

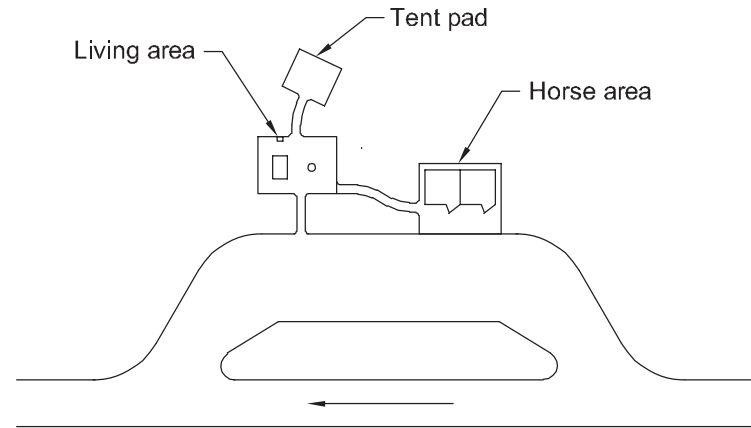
The most common camp unit for riders is the *single-party camp unit*; other options include *double-party camp units*, *several-party camp units*, and *group camps*. Visit with riders to determine the types they prefer. Provide a variety of camp units to meet varying needs.

### Single-Party Camp Units

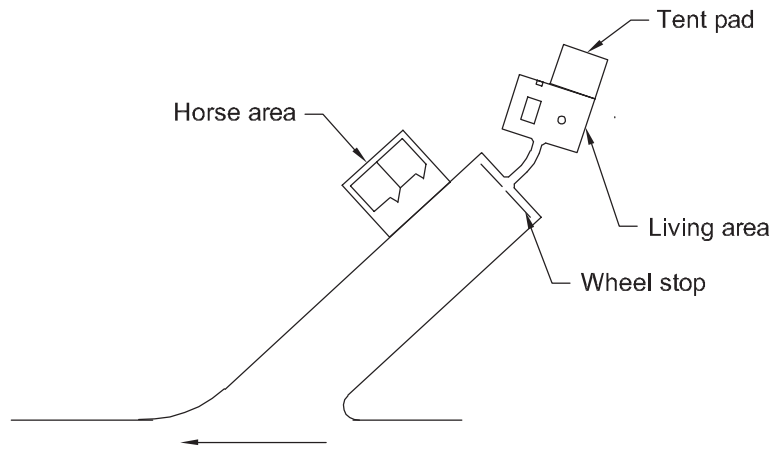
Many equestrian campers prefer a single-party camp unit. Generally, a single-party camp unit accommodates no more than five people, a towing vehicle, and a four-horse trailer. Provide a living area that is about 550 square feet (51 square meters), a tent pad, and a horse area for two animals. If campers have four animals, two animals will have to be tied to the trailer. Figure 9–15 shows concepts for single-party units.



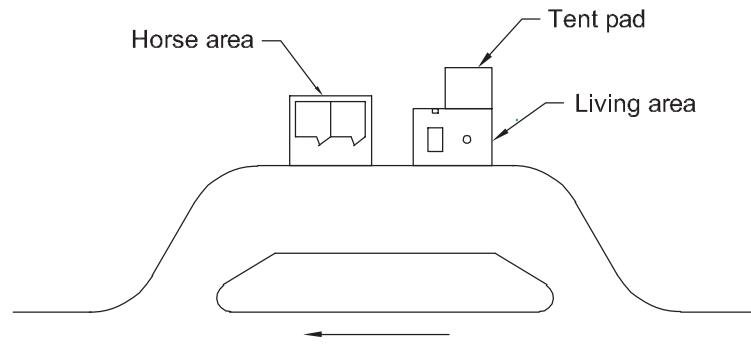
(A) Back-In Parking Pad



(B) Pullthrough Parking Pad



(C) Back-In Parking Pad



(D) Pullthrough Parking Pad

Figure 9-15—Single-party camp units.



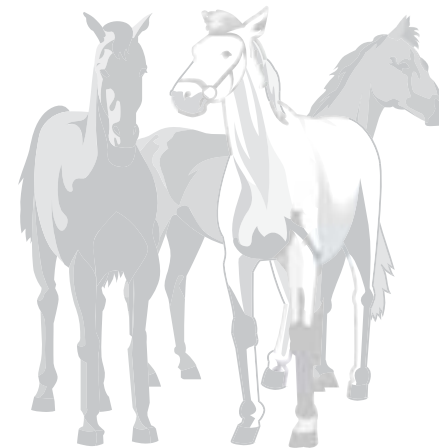


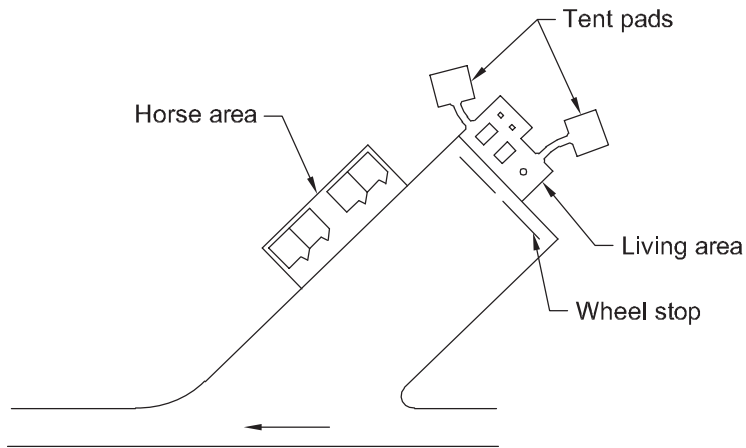
### ***Double-Party Camp Units***

Riders who want to camp with fellow riders appreciate double-party camp units. Back-in or pullthrough parking pads can be adapted for use in double-unit parking pads. One concept merges two back-in parking pads with a total width of 56 feet (17.1 meters). A pullthrough parking pad will need to be extended 55 or 78 feet (16.8 or 23.8 meters). Extended pullthrough parking pads have a disadvantage—the towing vehicle parked in the

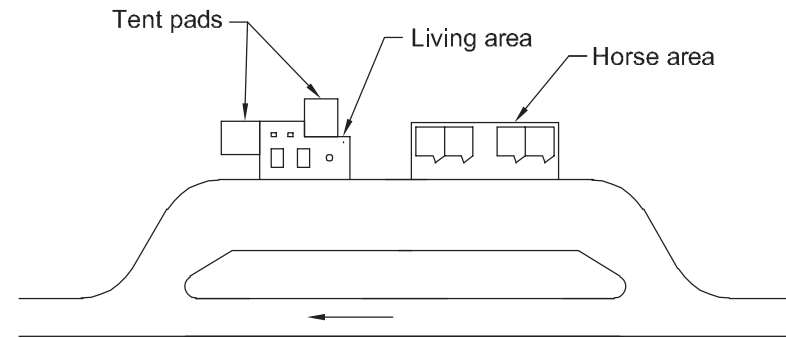
rear cannot be moved forward until the front trailer is moved. Backing the rear vehicle is an option, but some drivers are not comfortable doing so. A widened pullthrough parking pad allows the rear vehicle to be driven around the other parked vehicle. To widen the parking pad, add 10 feet (3 meters), for a total width of 38 feet (11.6 meters). Provide a living area of about 700 square feet (65 square meters), two tent pads, and areas for four animals. Figure 9–16 shows concepts for double-party equestrian camp units.

Consider having attendants or hosts who can monitor the operation of the campground. The most effective attendants are those familiar with the special needs of stock and riders. Attendants and their stock should be provided a double-party camp unit with a horse area.

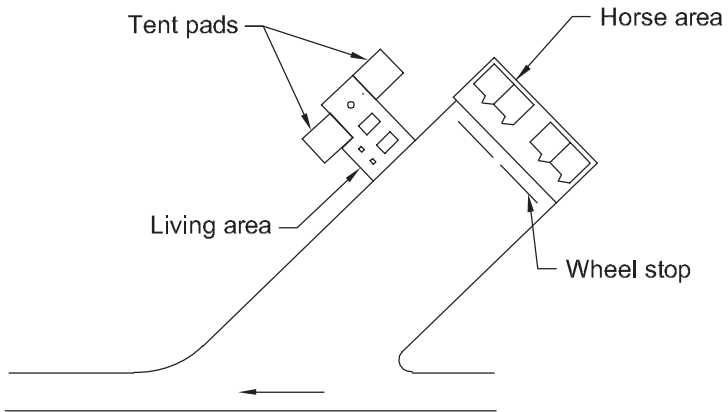




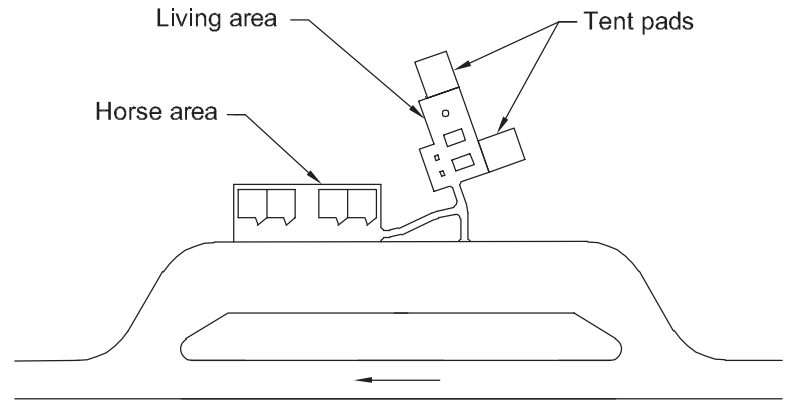
(A) Double Back-In Parking Pad



(B) Double Pullthrough Parking Pad



(C) Double Back-In Parking Pad



(D) Double Pullthrough Parking Pad

Figure 9-16—Double-party camp units.



### Several-Party Camp Units

Campsites designed for three to four parties are highly favored by riders. Parking options include extra-long or extra-wide pullthrough parking pads (figure 9–17A and B). The extra length—55 or 78 feet (16.8 to 23.8 meters) per vehicle—allows three to four vehicles to park one behind the other. Widen pullthrough parking pads to accommodate parking on the outside, and leave the inside open as a travel lane. The landscape island insulates tied stock from dangers on the main road. Install a sign at each unit clarifying that it is for several parties.

Another several-party concept has a *terminal loop* with three to four back-in parking pads (figure 9–17C). A terminal loop is used only by the campers in the several-party campsite. Make the loop oval rather than a perfect circle. An oval loop allows campers to more easily pull forward and back into parking spaces. Another concept uses three or four back-in parking pads adjacent to each other. The space needs to be 84 feet (25.6 meters) wide for three parking pads and 112 feet (34.1 meters) wide for four. The parking layout may not be clear to drivers. Wheel stops placed 2 feet (0.6 meter) from the end of each parking pad can help mark the spaces.

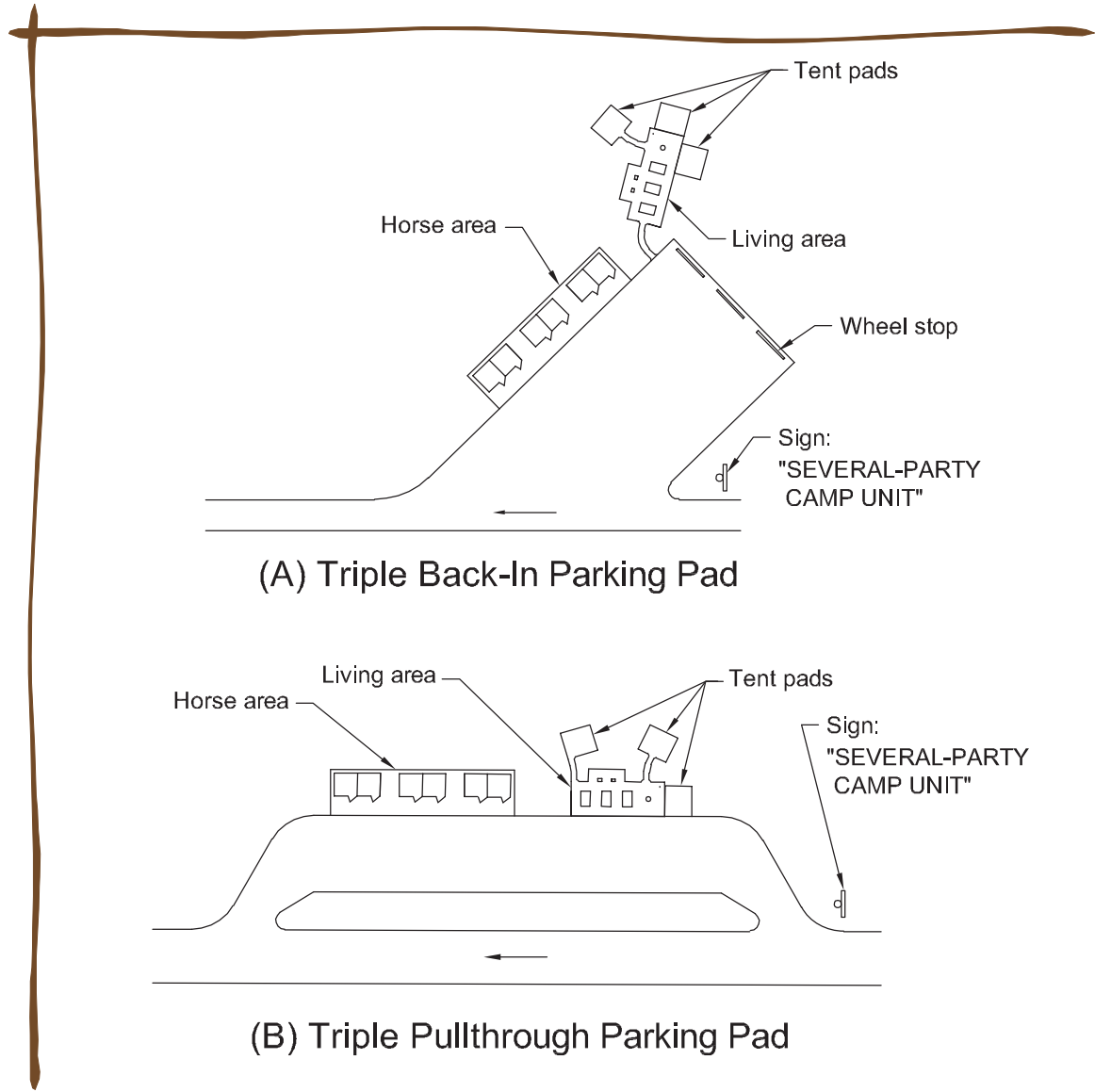
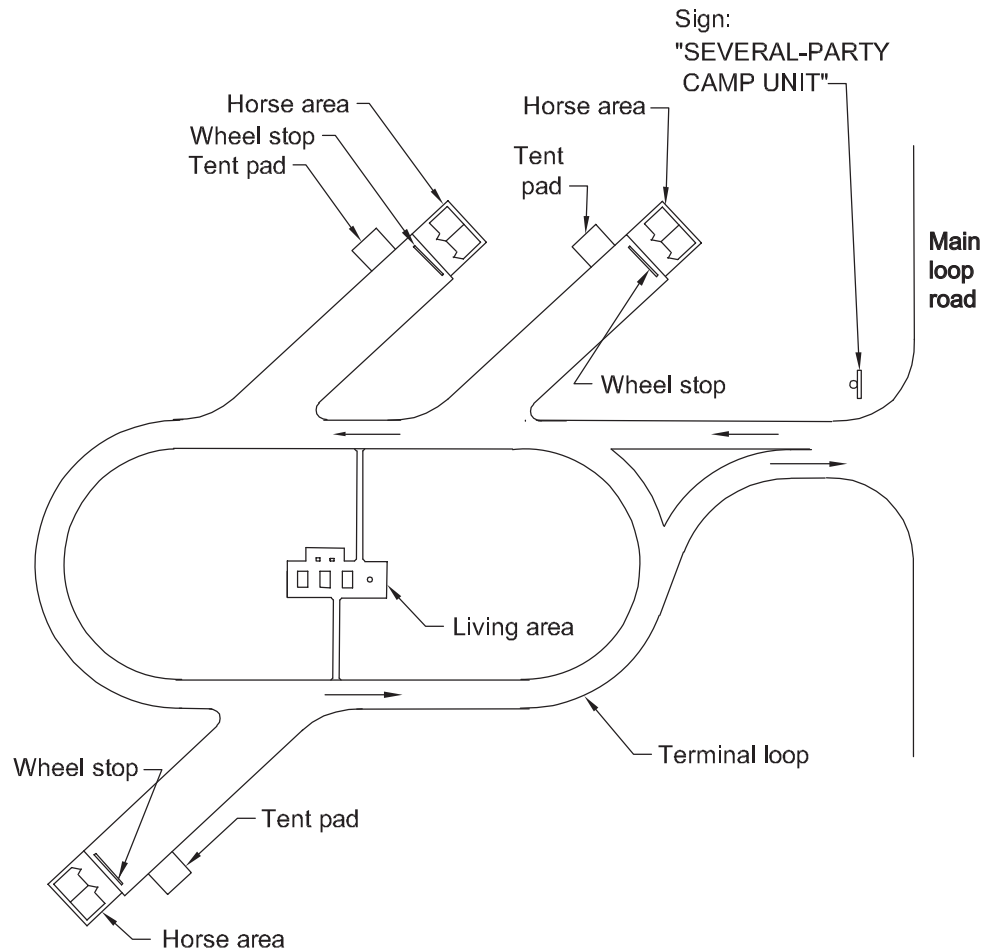


Figure 9–17—Several-party camp units. Each example is sized for three vehicles with horse trailers.







(C) Separate Back-In Parking Pads

An appropriate living area for several parties includes a shared space of about 950 square feet (88.3 square meters) where the campers gather to prepare meals and socialize. Living areas for several parties should be centrally located in the camp unit (figure 9–17C). Provide a separate tent pad and horse area for each party. This allows privacy for sleeping and separates the stock.

**Group Camps**

At group camps, include a group gathering area for eating and socializing. Furnishings at group gathering areas may include picnic tables, group-sized pedestal grills, group-sized fire rings, serving tables, and lantern hangers. Equestrians also appreciate a shelter, trash receptacles, and a water hydrant. Group gathering areas may include one large structure (figure 9–18) or several smaller structures (figure 9–19). For more information on sizing structures, see *Chapter 7—Planning Recreation Sites*. Because the areas may receive heavy traffic, paving may be necessary. The suitability of pavement depends on the level of development.



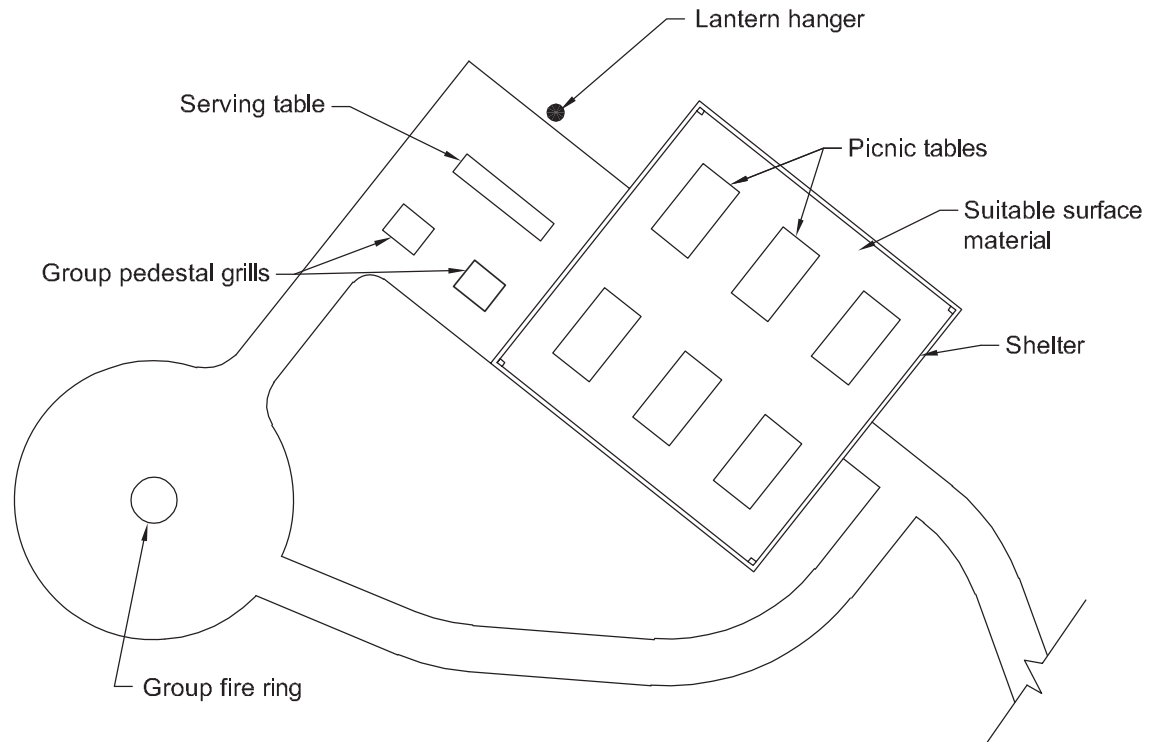


Figure 9-18—A group gathering area for a recreation site with a moderate to high level of development.





### Picnic Units

When planning picnic units at trailheads, provide different sizes of living areas because the number of riders traveling together varies. The best approach is to incorporate single-party (figure 9–20), double-party, and several-party living areas. Because living areas in picnic units also receive heavy foot traffic, consider paving them.

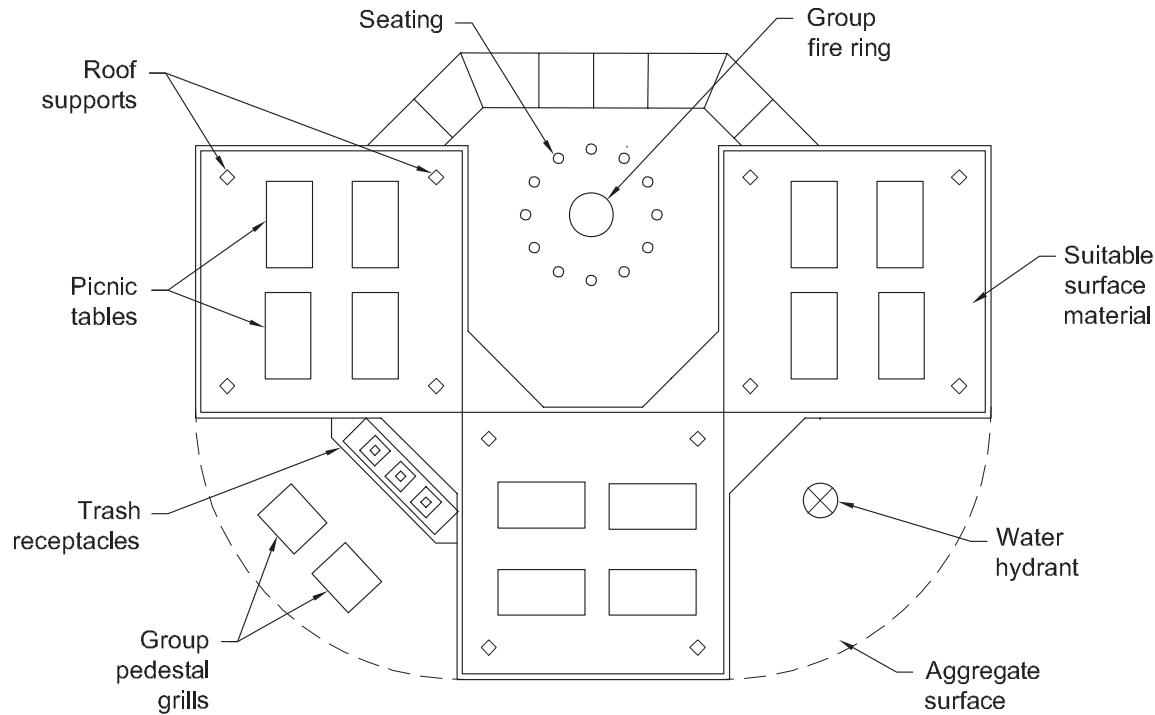


Figure 9–19—A group gathering area under three roofs for a recreation site with a high level of development.

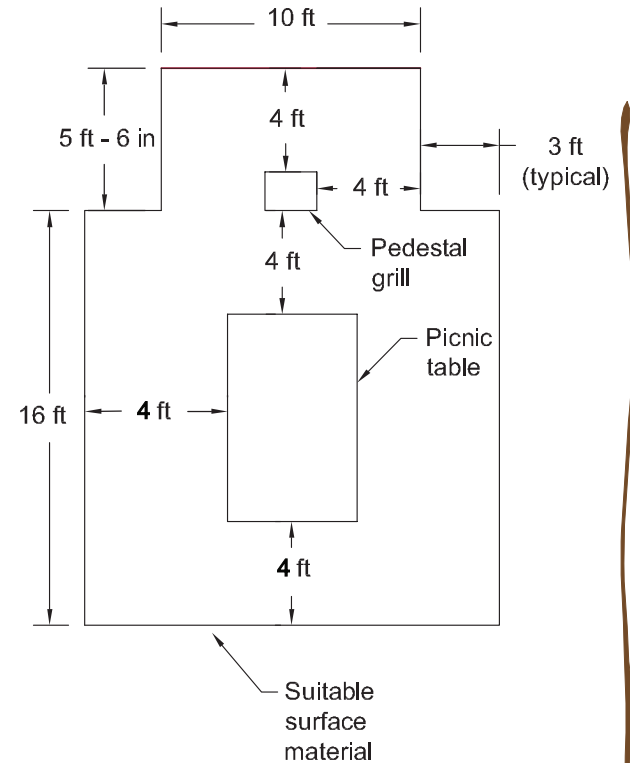


Figure 9–20—A single-party living area in a picnic unit. The dimensions are minimums.





### Equestrian Site Furnishings

Common recreation site furnishings include picnic tables, fire rings, grills, lantern hangers—and in group sites, serving tables. The best furnishings require little maintenance, have a long lifespan, are easy to clean, and are difficult for vandals to damage. Furnishings also must be convenient, easy to use, and safe. Avoid items with protruding objects or sharp corners that could injure users. Table 9–2 lists the suitability of site furnishings for living areas.

Table 9–2—Suggested suitability of recreation site furnishings.

Facility	Single-, double-, and several-party camp units	Single-, double-, and several-party picnic units	Group camp gathering areas
Picnic table	Usually provided	Usually provided	Usually provided
Fire ring	Usually provided	Not usually provided	Usually provided
Grill	Usually provided	Often provided	Usually provided
Lantern hanger	Often provided	Not usually provided	Often provided
Serving table	Not usually provided	Not usually provided	Often provided



#### Trail Talk

#### Accessible Furnishings

The Architectural Barriers Act (ABA) requires most agencies to include accessible furnishings when constructing new facilities, even if the route or living area does not meet the accessibility requirements. For example, at campgrounds cooking surfaces should be raised above the ground and grill grates should be easy to lift. Furnishings that are accessible are more convenient and comfortable for most users. For more information, refer to *Appendix F—Summary of Accessibility Legislation, Standards, and Guidelines* and *Chapter 11—Designing for Riders With Disabilities*.

### Picnic and Serving Tables

Many users bring their own grill or stove, but few carry a picnic table. Provide picnic tables in campgrounds and at trailheads where day use is encouraged. Tables are available commercially in wood, metal, concrete, recycled plastic, and plastic-coated expanded metal. Select the table material based on the level of development, climate, and amount of vandalism expected at the site. Serving tables are not a necessity, but groups appreciate the extra space for preparing and serving food (figure 9–21).



Figure 9–21—A serving table is a convenient amenity at a group camp.



## Fire Rings and Grills

Fire rings are essential at camp units because they reduce fire hazards and make maintenance easier. Because evening use is not encouraged at picnic units, fire rings are unnecessary there. Preferred fire ring styles have a hinged base so the cooking grate can be tipped back to clean out the ashes. Many accessible fire rings have an expanded metal barrier around the perimeter to keep campers from leaning against the hot surface.

Grills are needed in campgrounds and may be installed at day-use trailheads. Pedestal varieties are designed at a level comfortable for most users, and are the most common. The best models have a cooking grate that is hinged and can be raised and lowered. Some models include lids to reduce cooking time and to keep food warm. Rotating grills and shelves for utensils are other options.

It is a good idea to equip each equestrian camp unit with both a fire ring and a grill to meet all cooking and campfire needs. If funding does not allow both, fire ring and grill combinations (figure 9–22) are available. Combination models with hinged and adjustable cooking grates are best for cooking and are easy to clean.



Figure 9–22—This combination fire ring and grill has multiple cooking levels and a surface for fires. This accessible style works well for most users.

## Lantern Hangers

Some campers appreciate lantern hangers—they are convenient and protect trees from damage. The recommended distance from the ground to the lantern hanger is about 80 inches (2,032 millimeters). Because an 80-inch hanger, such as the one shown in figure 9–23, is not accessible, a second hook can be mounted where people in wheelchairs can use it.



Figure 9–23—For lantern hangers to be accessible, they should not be more than 48 inches from the ground. This style of lantern hanger could be adapted by adding a second, lower hook.

