

## NHHC Equestrian and Car Parking Update: 8-26-14

New Hampshire Horse Council made contact with other organizations and horse councils to find plans for equestrian parking. The information compiled into this document is to be used as a guideline along with seeking advice from expert designers; this document is not considered to be a standard. Information shown in bold print is a suggestion that may be used to adjust any plans shown.

The figures mentioned in this document were samples used in other projects around the country. Figure 1 is a good sample of what might be used on properties hosting equine trail use. The samples shown can be easily changed or amenities eliminated as needed. Other design options are also mentioned.

### **Key Design Considerations**

Two-way entrance

Perimeter drive

Car parking separate from horse trailer parking

Space for 8 or 10 horse trailers, no less than 4 to 5 horse trailer spaces in limited lot size

Pull thru horse trailer parking spaces

Crushed gravel surface

Trail entrance

Defined parking patterns

Configured for easy turn around for vehicles pulling trailers if lot is full

Amenities

### **Trailer Lengths**

The first thing to consider is the length of a truck and trailer combination.

A 2- horse trailer bumper-pull with a dressing room (19 feet) has become common and so has the truck with an extended cab (20 feet). This truck and trailer combination will be 39 feet long plus 18 more feet is needed for unloading/loading thus requiring a minimum of 57 feet. So you can imagine larger trailers that carry 3 and 4 horses and maybe 6 horses will need a parking space 80 feet in length for a margin of safety

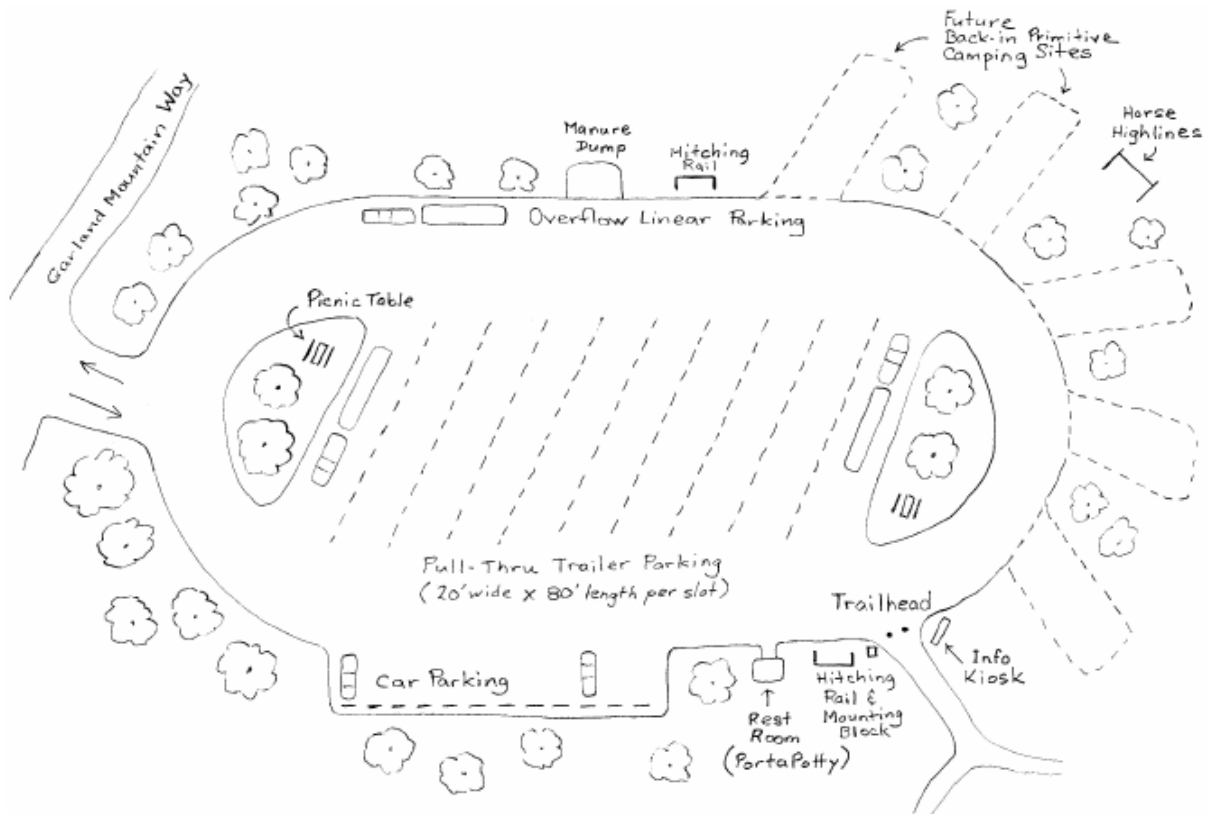
Horse trailers are 7'8" to 8'6" wide. Tow vehicles are 6' to 8'6" wide. Maximum trailer height is 13'6". Legal limit in length of a trailer is 53'

Horse Trailer	Trailer length	Tow Vehicle length	Ramp/door clearance	Min. load/unload clearance	Overall combination length
2H w/dressing room-bumper pull	17'8" to 19'	20'-22' truck & Xcab	8'	10'	55'8" to 59'
2H w/dressing room-gooseneck	22'8"	20'-22' truck & Xcab	8'	10'	57'8" to 59'8"
4H w/dressing room-rear & side ramp-gooseneck	36'6"	20'-22' truck & Xcab	8'	10'	71'6" to 73'6"

Note: 3 feet was considered for overhang into truck for gooseneck trailers

Figure 1 depicts a parking area design that best accommodates the above requirements though the width of the equestrian parking spaces should be wider. This sample shows angled parallel parking, over flow parking and possible pull-in/back out parking. Pull-in/back-out parking is less desirable but is an option for additional parking. As drawn (not to scale), the overall dimensions of this graded/developed parking area is approximately 175 feet in width by 300 feet in length (including car parking, less the camping or extra pull-in/back-out parking spaces). It can be modified in various ways to meet requirements.

Figure 1



### Access and Entrance Drive

A combination truck and horse trailer can easily total 50 feet or more in length with maneuverability similar to that of a tractor-trailer. The entrance approach ideally should have a minimum 40-foot turning radius into the entrance to the property. A level, wide, improved-surface entrance off the main road is essential to eliminate rutting, “curb jumping”, “trailer bottoming”, or interference with structures or other traffic. Any ditching should be very gradual and well set back, and the vicinity should be clear of trees, sign posts or other structures. The entrance drive should facilitate two-way traffic and be at least 100 feet in length before turning into the parking area. There can be no tight turns and it must be clear of branches to a height of 14 feet to ensure clearance for all sizes of trucks and trailers. If a gate is required, its minimum width should be 30 feet to accommodate two-way traffic.

### Parking Area

The parking lot itself must be large, level and well graded, on well-drained soils, functional, and should be void of curbs, fences, posts, gates, signs, or other structures that reduce or interfere with traffic flow, turning, parking, unloading, handling and saddling of the horse.

**Car parking *should* be in an area separate from the horse trailer parking.** Allowing cars to park intermixed with horse trailers can result in accidents to vehicles, humans and horses. It's just not safe or practical option.

The most common shortcoming in horse trailer parking areas is limited or insufficient size. Too small an area results in not enough room for the expected number of visitors, tight trailer turning and maneuvering, cramped space for trailer door opening and unloading horses, and inadequate spacing for horses that are temporarily tied to the side of an 8 foot-wide trailer for grooming and saddling. **The length of a horse is approximately 9 feet. Trailers that are parked side-by-side will need 16-18 feet between them then add 8 feet for half of each trailer width and room for owners to pass behind a horse = 28-30 feet.** A truck and trailer combination may be in excess of 50 feet in length, the opening of the back door/ramp requires perhaps 8 feet, and a safe and comfortable space for the horse being unloaded/loaded would be another 10 feet. **The following can be used to help calculate an open lot size by using the recommended size allowance for each truck and trailer parking space of 28 to 30 feet in width by 78 to 80 feet in length with aisles that are 15 feet wide per lane. A minimum 17.5ft inside radius and 34.5ft outside radius (larger rigs may need 35ft ID x 51.5ft OD radii) should also be considered to make maneuvering easy into parking spaces and around perimeter drive. Angling any designated parking spaces 30, 45 and 60 degrees helps provide an adequate turning radius and maximizes use of space.** Manufacturers recommend the tow vehicle should remain at an angle of 120 degrees or more while pulling a trailer.

**The optimal configuration for horse trailer parking is to use drive or pull-thru parking spaces** as illustrated in the proposed plan. It is difficult for horse trailers to back up and impossible to parallel park. Pull-thrus that are laid out on a slant, accessible either way from a circular perimeter drive, allow for the easiest, quickest and safest maneuverability and utilize space to the maximum. Envision the truck parking areas at interstate rest stops.

Extra trailer parking can be made available by making the perimeter drive extra wide (on the side opposite car parking) to allow several trailers to park linearly parallel to the outside edge. This could be a grass area instead of gravel and be termed "overflow parking".

**For further parking information and diagrams please see USDOT-FHA Chapter 8 Designing Roads and Parking areas.**

**[http://www.fhwa.dot.gov/environment/recreational\\_trails/publications/fs\\_publications/07232816/page14.cfm](http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232816/page14.cfm)**

### **Surface**

A parking area must be level to allow full use of the area, safe trailering and parking of unit, safe and comfortable loading and unloading of horses, trailer and trailer door clearances, etc. It must also have good drainage and be free of mud. **Small crusher run gravel on a base of stabilizing large gravel** is the most suitable for trucks and horse trailers. Small gravel is easier on the horse's feet. Asphalt is slippery. Grass is acceptable, but can be a problem in wet weather and requires maintenance.

### **Trail Entrance**

The entrance to a trail should have some separation from parked vehicles. The actual entrance to the trail should not be too congested. This is the area that has the most user traffic when people are reading information on the trailhead bulletin board and perhaps waiting for others to start out on the trail, etc.

The first 100 yards of the trail are the most traveled by all users. Ideally, the first 100 yards is wider to minimize user congestion and be an easy trail when horses are meeting this user traffic. Signage should be set back sufficiently as to not be a hazard to the head of a horse or rider.

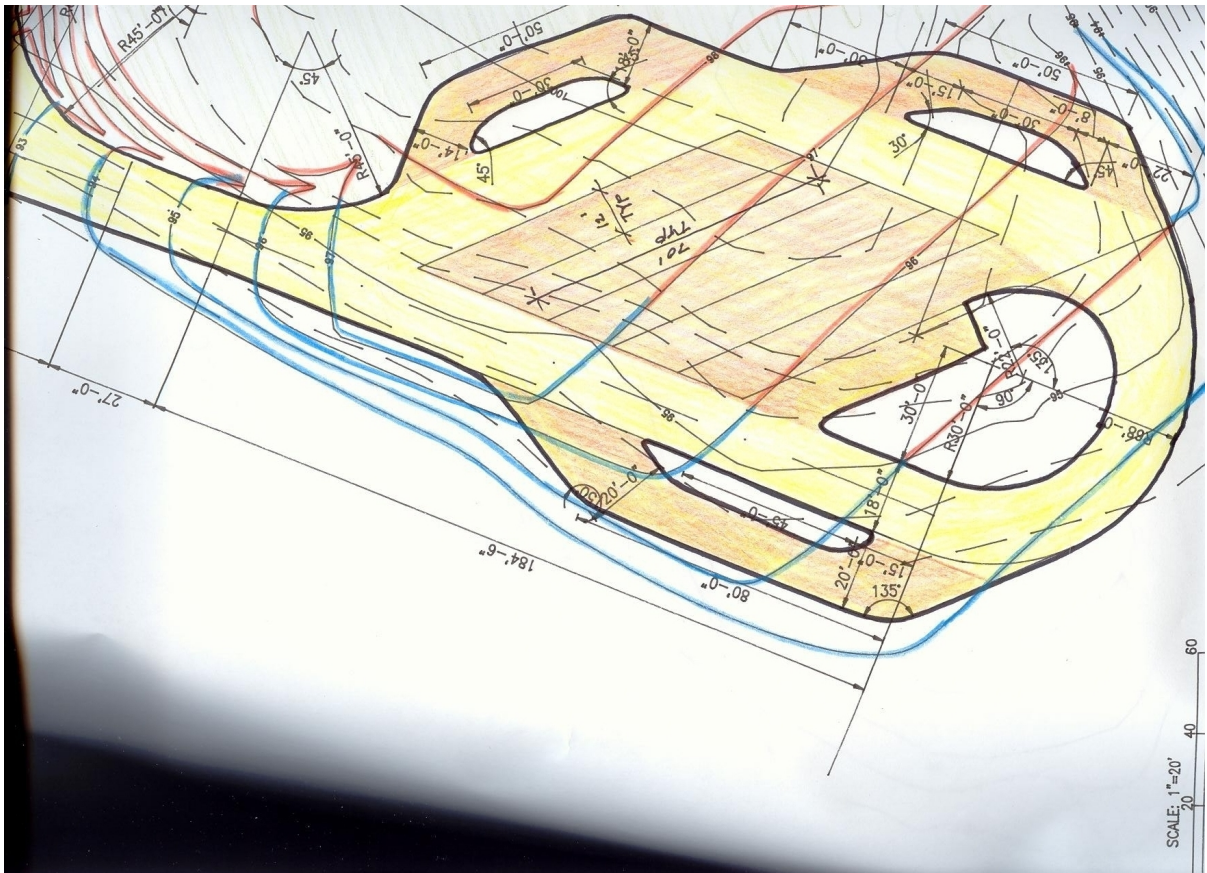
### **Defined Parking Patterns**

When people see a large, open unmarked area in which to park, they tend to park their vehicle any-which-way right in the center with no insight that they may be denying others a place to park. Designating parking spaces on gravel is a challenge, but the dilemma can be solved with the use of pre-cast concrete parking bumpers or railroad ties. For the car parking area, simply anchor one at the head of each parking space. For the pull-thru trailer parking spaces, anchor 3 bumpers 6 or 8 feet apart in the center section of the diagonal lines of the trailer parking spaces before the gravel is laid in. This will permanently define the parking lanes and not stick up enough to be an obstacle or cause damage if accidentally run over or scraped with tires. The tops can be painted for enhanced visibility. The rounded and slanted natural “islands” at both ends of the trailer parking area further indicate the parking and drive-route pattern and offer a shady respite for picnic tables.

### **Another Design Option**

Figure 2 shows a design with angled parallel parking and single pull-thru drives for another way to utilize space for parking. Single pull-thru drives can be added on the outsides of the perimeter drive for horse trailers. Any parking spaces between 15 (minimum) feet and 25 feet in width need to provide hitching rails because of inadequate room to tie horses to the trailer. Horse owners prefer to tie to their trailers because they do not have to transport their equipment to another area.

Figure 2



### Simple and Functional Design Option

Sometimes simple and functional are all that is needed for a parking area, such as a large level field or graded gravel area. These areas should be well drained, clear of obstructions with ample room for parking. The suggested size for such an area would be 200 feet by 350 feet. There is no defined parking though signs can be erected to leave the perimeter open for a drive and show a diagram for desired parking configuration. An area this size has room for 10 truck and trailer combinations. Car parking should still be separate and can be adjacent to this area.

## **Amenities**

Directional Signage

Information Kiosk or Bulletin Board at trailhead

Rest Room-Port-a-Potty is sufficient

Garbage Can or Bin or Carry-in/Carry-out policy

Manure Disposal: Have a Carry-in/Carry-out policy for hay/manure in parking area or supply parking area container

Picnic Table(s)

## **Proposed Site**

The best site for equestrian parking is where horse owners are trying to park. Normally it is central to an approximate 5-mile main loop with options to other longer loops. Loop trails are desirable and 5 miles takes a recreational rider approximately 1-1/2 to 2 hours to complete.

As mentioned above including a separate area for cars will also benefit other user types.

There is also a possibility that the equestrian parking area will see less use from horses in the winter, so could be shared with the winter users such as snowmobilers, cross-country skiers, snow-shoers, musher's, etc.

The availability of parking that accommodates equine trailers is very important for trail access. This document is meant to be a simple guideline for planning parking areas and to be used with other accepted guidelines. Good parking promotes stewardship of trail systems and is a benefit to all users for healthful outdoor recreation and the local economies.

Sincerely

New Hampshire Horse Council (NHHC) Trails Committee

Sources:

Chevrolet and Ford Truck Brochure

Trail-et Inc. Horse trailer brochure

Featherlite Trailers web site

Cotner Trailer Inc. web site

Exiss Trailer web site

Miley Trailer web site

EquiSpirit.com web site-Turning Radius for horse trailers-Dimensions and Maneuvering

### **Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds**

written by Jan Hancock in conjunction with U.S. Forest Service

This can be found on the web <http://www.fhwa.dot.gov/environment/fspubs/07232816/index.htm>

This document is recommended by New Hampshire Horse Council

Ontario Trail Riders Association-Criteria for Equestrian Parking Lots- Marjory Morden  
Director of Trail Development

Ellen Stara Cherokee County, Georgia.

Mary Hanson-Outdoor Recreation Planner, Rivers, Trails, Conservation Assistance, National Park Service, Omaha, Nebraska

Anne M. O'Dell=Designing Shared-Use Trails to Include Equestrians  
Go to [www.ride-newyork.com](http://www.ride-newyork.com); click on 'Advocacy', and the 'Designing Shared Use Trails' presentation is there for download.

Dawn Ballou, Editor, Pinedale Wyoming –passed e-mail on to BLM Recreation Department and an architect- *Bonnie M Chambers, AIA CHAMBERS* Design-Build, Inc. POB 1360 167 S Cole Avenue Pinedale, WY 82941

Herlon Pierce, Trail Manager, Longleaf Trace, P.O. Box 15187 Hattiesburg, MS 39404

Peggy Bree from Maryland Horse Council who passed my e-mail to Southeastern Equestrian Trail Conference contacts, who have helped to put on the conference

Recreation Horse Trails in Rural and Wildland Areas-Clemson University-Gene Wood

Grant, Joan