



# KEEPING HORSES IN WOODSIDE

LIVESTOCK AND EQUESTRIAN  
HERITAGE COMMITTEE





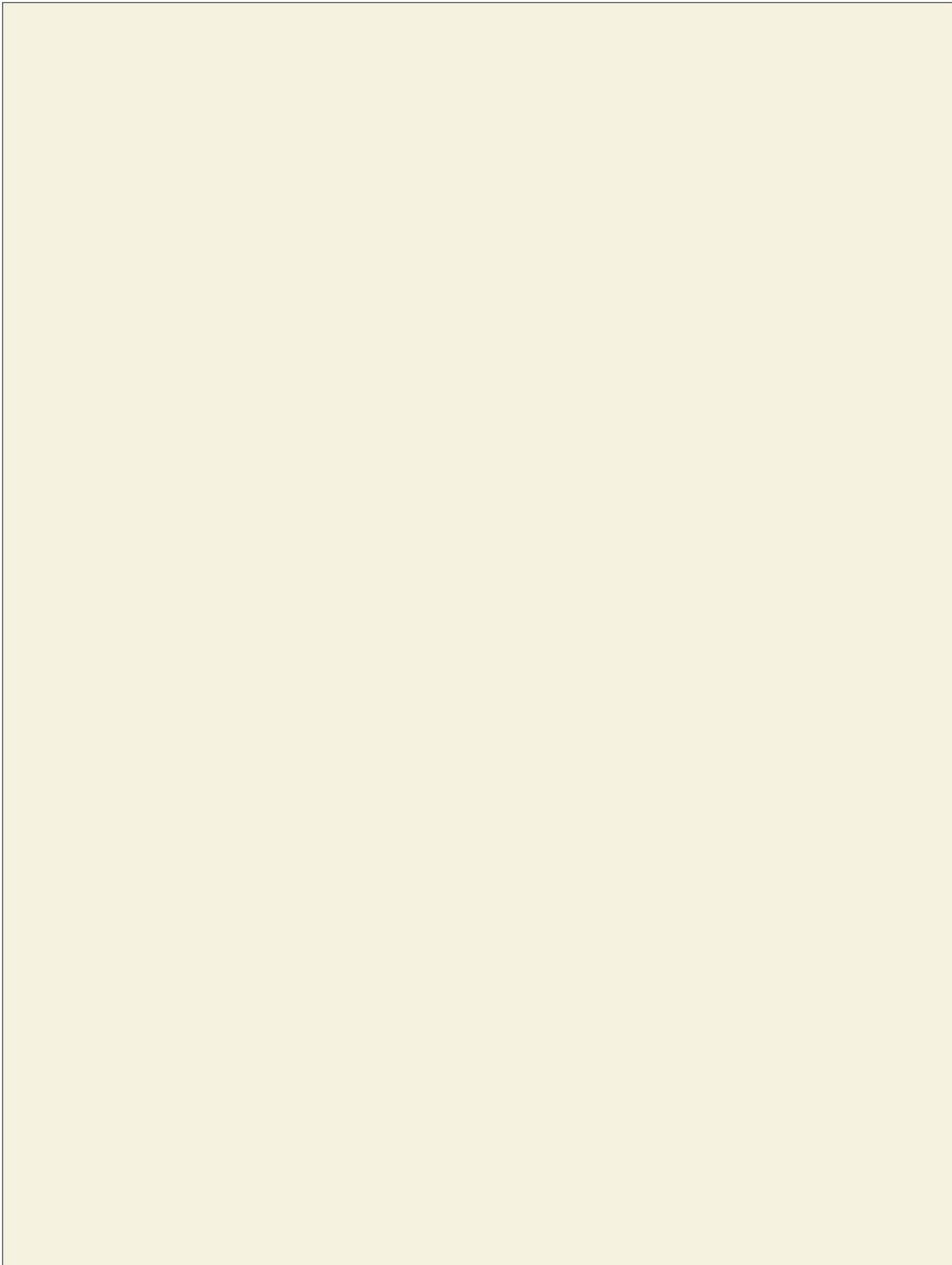


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# KEEPING HORSES IN WOODSIDE

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## INTRODUCTION

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*“The history of mankind is  
carried on the back of a horse.”*

– Author Unknown

Trails, not sidewalks. Hitching posts, not stop lights. These are a few of the endearing features in keeping with Woodside’s history celebrating the horse.

Given that many residents keep horses, or have property that can be used for horses, the Town of Woodside’s Livestock & Equestrian Heritage Committee (LEHC) designed this “Keeping Horses In Woodside” Notebook to be used as a reference tool.

### **The Notebook ...**

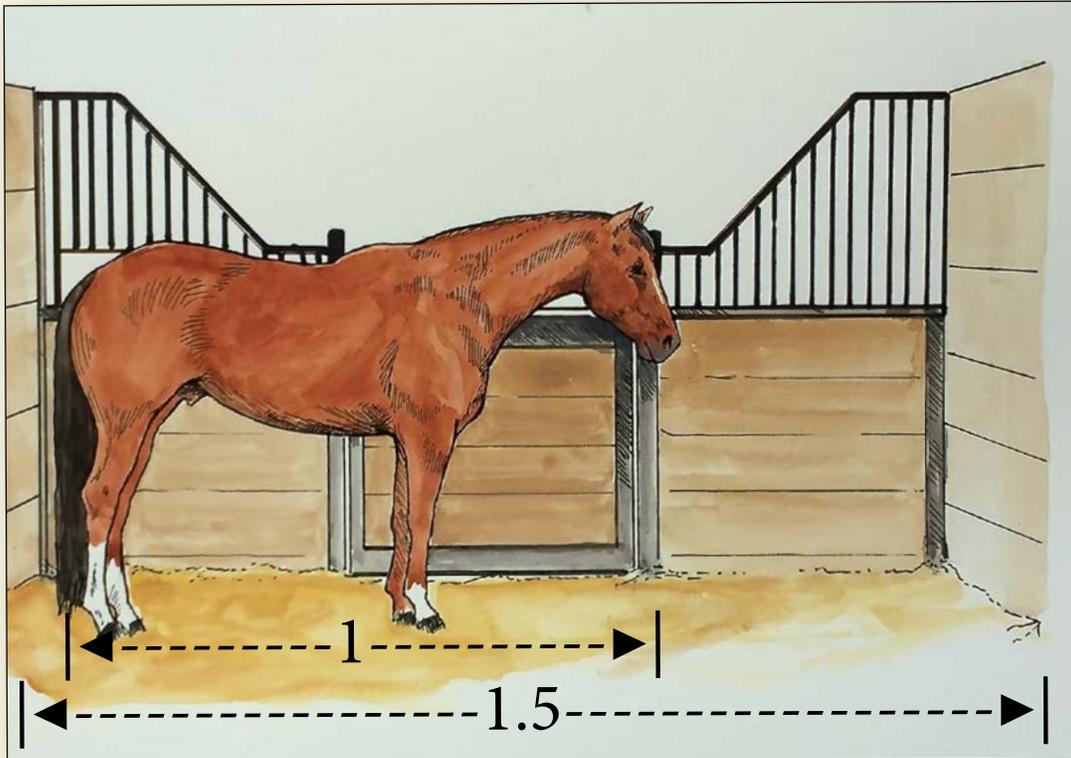
- Is science-based, and is a well-referenced, industry practices guideline for horse husbandry. The material is meant to be useful to private horse owners, stable owners, and Town Staff for planning purposes.
- Can be accessed as a hard copy publication at the Woodside Town Hall or online through the Town of Woodside website, <http://www.woodsidetown.org>.
- Was not designed to regulate or legislate, but to educate and occasionally recommend appropriate management practices.

Horses will continue to be a popular reminder of Woodside’s frontier past and countrified present. We would appreciate any feedback on the Notebook to ensure we continue to improve its usefulness in supporting our local community.

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## CHAPTER 1. SHELTER

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Industry standard suggests a stall wall length of 1.5 times the horse's length (10-12 feet for the average sized horse).

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### OVERVIEW

Whether it is for a retired backyard horse or a Grand Prix Jumper, the stable is one of the primary components of a horse operation that offers an interface for the horse to be groomed, fed, and monitored in an environment that is safe for the horse and handler.

### GOALS

*As in all aspects of horse management, safety is the primary goal when considering stable design.*

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## OPTIONS

Shelter types vary and are often designated by the size, use, and number of horses on a property. There are numerous options when considering the most appropriate stabling for your needs (including shelters, enclosed, and unenclosed stalls).

### Size

Be sure the stall is large enough to allow the horse to get up and down safely. Industry standard suggests a stall wall length of 1.5 times the horse's length (10-12 feet for the average sized horse).

Partitions can be used to prevent commingling of horses.

Ceiling height is important when considering risk of a horse rearing and hitting its head.



**Ground clearance of less than 3 inches will prevent horse's leg or hoof from getting stuck.**

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## Additional Suggestions

*The options for equine shelters are numerous. Consider your needs, means, and particular facility making the most appropriate choice. Whether building a run-in shed or eight-stall barn, a central goal remains for your horse: provide a durable, safe, and easily managed shelter.*

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## Woodside Perspective

*Woodside Municipal Code Chapter 115: Stables*

*Woodside Municipal Code Chapter 115.09 (Definitions)*

*Woodside Municipal Code 115.12 (Private Stable Regulations)*

*Woodside Municipal Code 115.17 (Conditional Use Permit for Professional Stables)*

*Meet all Zoning and Building Regulations*

## Doors

The doorway should be wide enough to allow for safe movement into and out of the stall.

### Types

Swing Doors are best if opened into the aisle way.

Sliding Doors require a stop to prevent them from being kicked out.

Ground clearance of less than 3 inches will prevent horse's leg or hoof from getting stuck.

## Wash Rack

Proper drainage and a slip-free surface are key factors when designing a wash rack.

## Lighting and Ventilation

Utilizing natural lighting and fixtures that promote good visibility without creating excessive shadowing will help you create a safe and aesthetically pleasing space.

## Feed and Water

Separate feed and water so that material is not dropped into the water.

Mounted equipment/mangers/devices should be secured to the wall and free of sharp edges

## Hay

See Chapter 5 "Hay and Feed Storage" for additional information

## Flooring

Ideal flooring is durable (but with give), slip-free, and easily sanitized.

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## External References / Bibliography

*Penn State College of Agricultural Sciences- Agricultural Research and Cooperative Extension:*

*[pubs.cas.psu.edu/freepubs/pdfs/ub033.pdf](https://pubs.cas.psu.edu/freepubs/pdfs/ub033.pdf)*

*[pubs.cas.psu.edu/freepubs/pdfs/ub036.pdf](https://pubs.cas.psu.edu/freepubs/pdfs/ub036.pdf)*

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## CHAPTER 2. EXERCISE AREAS

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**Enjoying free exercise in a round pen**

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### OVERVIEW

In the wild, a horse walks many miles and grazes throughout the day. Abundant movement and regular exercise are fundamental for the good health of the digestive system and musculoskeletal fitness of your horse.

Turnouts, paddocks, round-pens, arenas, extended stalls, and corrals are all useful areas for controlled or free exercise of horses and are encouraged.

### GOALS

*Implementing a creative design for your property can provide exercise options on site, supplemented by local equestrian facilities, and extensive trails.*

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## OPTIONS

Woodside and San Mateo County offer many miles of trails with varied terrain. You also have access to semi-private equestrian facilities geared to many riding disciplines offering different levels of memberships.

When designing your own exercise areas, there are multiple options depending on your needs:

### Pasture

Grass field is ideal for the horse but difficult in drought country

### Extended stalls

Long or short runs attached to enclosed or covered stalls

### Paddocks

Open areas of natural terrain

### Turnouts

Sand or dirt areas designed for free exercise

### Round pens

Enclosed smaller circular pens for free or controlled work

## Walkers

Circular, motor driven, enclosed or open, treadmills



Circular, motor driven, enclosed walker

## Unamended arena

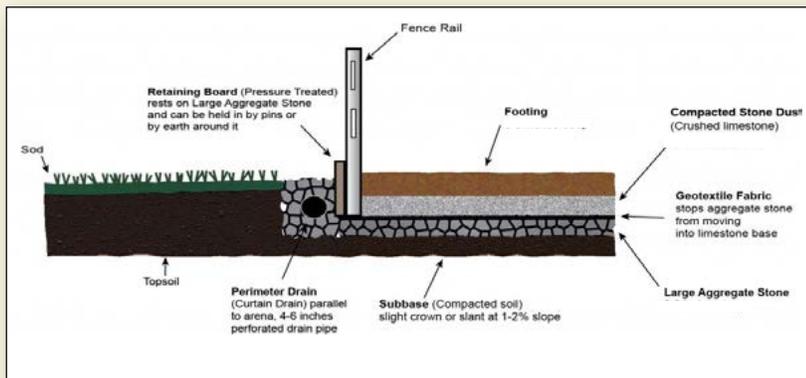
Graded areas of natural footing

## Amended arena

Graded with drainage, rock base, sand and/or fiber surface

## Covered

Covered arenas and external shelters



Typical Constructed/Amended Footing

## Additional Suggestions

Allocation of space in exercise areas is an individual preference, and many natural and constructed areas serve multiple purposes.

Natural terrain in Woodside is often sloped. The soil is seasonally hard, dry, dusty, or muddy and does not support plant material suitable for horses without irrigation. Judicious use of sand or other imported natural materials will provide safe, healthy surfaces for your horses. Mud can be a serious health and safety issue, and is best mitigated when possible.

Standard construction concepts for arenas are well understood and common. Many arenas and/or paddock improvements are also considered forms of construction such as: addition of base rock for drainage, sand amendments, and sand or fiber footings.

Fencing see "Chapter 3 – Fencing."

## Town of Woodside Requirements

Regulations govern slope, paved area coverage, setbacks, fencing, surfaces and water use.

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## CHAPTER 3 . FENCING

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### OVERVIEW

Ideal fencing functions for safety of horses and humans and fits the guidelines for rural Woodside. There are many types of fencing that are functional in a wide range of pricing and aesthetics. Your neighbors and your community will greatly appreciate efforts to select a fencing that works for your needs, is visually pleasing and wildlife friendly.

### GOALS

*Horse fencing serves the function of containing and restraining horses for the safety of both horses and humans.*

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## OPTIONS

There are many choices for providing a safe and esthetically pleasing fence line. These include:

### **Wood and wood**

Three and four board rail – from four to six feet in height

### **Wood and wire**

Wood posts and horizontal components with sections of wire mesh between; not all designs of wire mesh are safe for horses or wildlife friendly

### **Electric**

Wood or metal posts with electric tape substituting for one or more rails

**Electric assisted** Internal wiring on wood fencing to minimize chewing, rubbing, or playing

\*Consider solar power as an inexpensive addition for electronic options.

### **Electric extenders**

Wires used above lower fencing to discourage paddock-to-paddock interaction or to raise fence height with low visibility

### **Metal post and rail**

Regionally common, using affordable components from oil industry

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## **Additional Suggestions**

*Good fences make good neighbors! Additionally, consider the location of landscaping on adjacent parcels.*

*For example, some plants are highly toxic to horses. The most common in Woodside are Oleander, Acer Rubrum and Black Walnut, whose leaves can quickly kill a horse. See “Chapter 4- Managing the Environment” for additional information.*

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## **Town of Woodside Requirements**

*Relevant Town guidelines address appearance, materials and height according to Town zones. Fences require approval through The Town Planning Department.*

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## CHAPTER 4. MANAGING THE ENVIRONMENT

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### OVERVIEW

While it is easy to become centrally focused on the barn itself, remember to look at the bigger picture and surrounding environment. This foresight will help prevent ingestion of toxic plants, reduce triggers that may be less than desirable to neighboring properties, and reduce your footprint on the local environment.

### GOALS

*Developing a functional stable with animal-safe and neighbor-friendly features is a must.*

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## OPTIONS / CONSIDERATIONS

In the building of any facility, consideration for the surrounding environment and the humans and animals who will inhabit the structures, is key. For example:

### Poisonous Plants

Refrain from planting anything of questionable safety and be on the lookout for plants in adjacent yards that may be accidentally introduced.



Oak



Maple



Oleander



Japanese Yew

### Dust Control

Consider the use of hedgerows and ground covers to reduce dust build-up.



Refrain from planting anything of questionable safety in adjacent yards

### Manure Disposal

Develop a routine for direct composting of manure or frequent removal off-site. This practice will reduce odors and flies.



Open manure disposal



Enclosed for off-site manure removal

### Water Sources

Run-off from manure, wash racks, and turnouts can flow directly to reservoirs or nearby streams. Be mindful of the products you use on a daily basis and use mulch and other ground covers to reduce direct flow into waterways.

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## Town of Woodside Requirements

See Town of Woodside's website for "Private Stable Regulations" <http://www.woodsidetown.org>

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## CHAPTER 5. HAY AND FEED STORAGE

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**Inside hay storage**

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### OVERVIEW

Being strategic about how and where you store your horse's hay, pellets, and other feed will enable you to preserve nutrient content and prevent spoilage. Starting with a quality product and storing it in a cool, dry area contributes to the longevity and nutritional impact.

### GOALS

*Having a hay and feed storage plan will ensure your stable remains clean and safe, while keeping your horse healthy.*

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## OPTIONS

Ideally hay and feed would be placed:

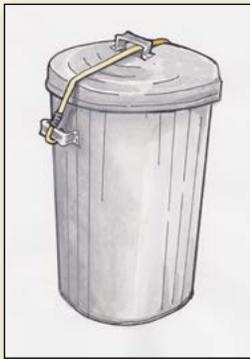
### Outside

On pallets or gravel, straw, covered with tarps that can withstand wind, rain, sun and snow, as well as prevent mold growth and spoilage.

### Inside

A barn loft or a stall that is not being used by a horse or other livestock, a separate shed either covered or tarped, avoiding dust build-up on hay which can cause respiratory problems in horses

Supplements and concentrates should be stored in secure dry containers. This will prevent accidental equine exposure and wildlife infestation.



**Trashcan with bungee cord over the lid**



**Uncovered hay bales exposed to sun**



**Inside hay storage**

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### Additional Suggestions

*Quality feed should be stored in cool, dry locations so there is minimal feed degradation, mold growth, or contamination that could harm horses.*

*Keep enough feed on hand to avoid frequent delivery, but not so much that it spoils, decomposes, or gets so hot that it reaches spontaneous combustion.*

*Keep feed in an enclosed and well-ventilated area, free from critters and other wildlife.*

*Maintain attractive, non-offensive looking storage areas.*

*Have easily accessible storage areas for delivery, and conveniently located for feeding the horses.*

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### Town of Woodside Requirements

*Storing in a barn or loft would comply with Woodside building ordinances.*

*If stored in a separate storage unit, you will need to comply with Woodside Zoning and Building ordinances.*

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## CHAPTER 6. EMERGENCY PREPAREDNESS AND ON SITE SECURITY

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### OVERVIEW

Emergency preparedness is important for all animals and humans. Given their size and transportation requirements, horses need additional considerations and advanced planning.

### GOALS

*Know how you will be able to get your horse off the property in the event of an emergency, whether it be a medical emergency or a natural disaster.*

## OPTIONS

Video monitors will support your ability to see most areas of barn, stalls and paddocks, as well as the front gate, entrance and driveways.

Road materials such as asphalt, gravel, concrete or pavers improve access for responders.

Automatic sprinkler systems, and hoses on both ends of barn and inside the barn are important for fire defense.

Smoke/heat/flame/motion detectors are helpful.

Stall doors should open to the outside of every stall. Pasture and corral gates should be large enough for evacuation vehicles to enter to access horses.



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### **Additional Suggestions**

*Your stable shall comply with the Woodside Stable permit checklist. Check out <http://www.woodsidetown.org/>, and search for "Stable Permit Applications." Additionally, if you go into the Town of Woodside's Town Hall, there will be a permit packet available on the table. The packet contains an LEHC cover letter, permit application, and an inspection checklist.*

*This includes having a plan of evacuation, generators, equine first aid, water, feed and fire extinguishers.*

*Prepare the property.*

*Allow for easy access to fire department vehicles, veterinarians, trailers and tallow truck: you will need 80x80 or 1600 square feet for turn around of a truck and a four-horse trailer.*

*Have enough paved or gravel area to allow safe turn around. The Woodside Fire Department can provide you with minimum height and width requirements and a radius for their vehicles.*

*Clear debris and brush from around barns and paddocks/corrals.*

*Have a water supply and know the location of all water sources such as on the property, hydrants, tanks, wells or ponds.*

*Have smoke/fire alarms where needed.*

*Install lights for safely walking around at night. Consider using timers or motion sensors.*

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### **Town of Woodside Requirements**

*Needs to comply with Woodside's building, zoning, and stable ordinances, which can be found at Woodside's Town Hall in the Building & Planning office, and/or [http://www.woodsidetown.org](http://www.woodsidetown.org/), search for "Building Code and Residential Code" and "Zoning Ordinance."*

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## CHAPTER 7. ACCESS, GATES AND FIRE SAFETY

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**Gates large enough for vehicle passage**

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### OVERVIEW

A stable fire is one of a horse owner's biggest concerns. Most fires are preventable and underscore the importance facility design plays, not only in fire prevention, but also in fire suppression.

### GOALS

*Keeping your stable and horses safe from fire.*

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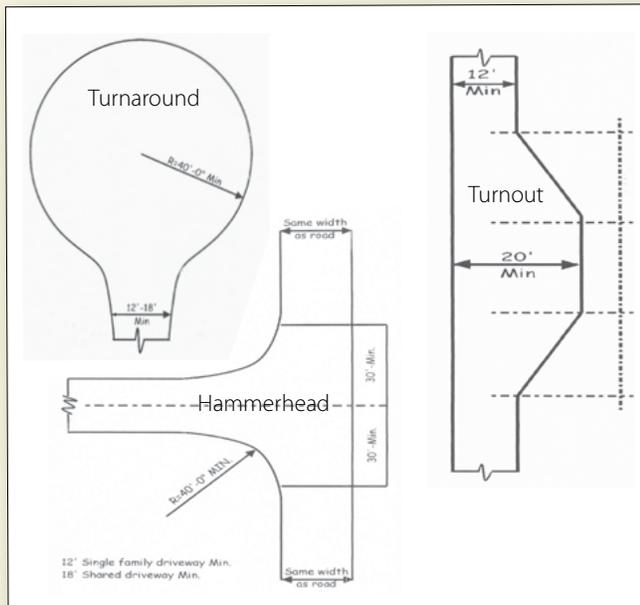
## OPTIONS

### Driveways

Circular driveways

Three point driveways

Driveway that goes all the way from street to barn and/or paddocks



Driveway options

### Gates

Metal gates

Wooden gates

PVC gates

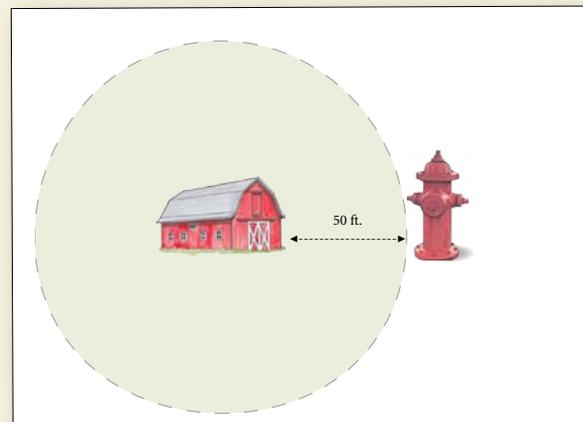
Recycled material gates

Gates large enough for vehicle passage, and sturdy enough for everyday use and manageable for evacuation if necessary

### Supplies

Fire hoses that can deliver 250 gallons of water/minute, the stable permit requires a hose to be 3/4" diameter

Fire extinguishers every 50 feet in barns



Fire hydrant 50 feet from barn

### Additional Suggestions

Access shall be consistent with Woodside's town code 151.44, Driveways.

Driveways and/or roads need to provide easy and ample enough access to the barn, paddocks, arena or wherever horses are located, to trailers, fire department vehicles, veterinarians and tallow trucks.

Paddocks should not be too muddy or steep for emergency vehicles, veterinarians and tallow trucks.

Gates should be wide enough for emergency vehicles. Horse-proof latching devices are recommended on gates.

Buildings that are 50-100 feet from the barn

Access to horses is easy

Gates are easy to open and close

Smoke alarms

Fire retardant treated wood

Adequate lighting on all buildings and barn

Halter and rope by all stalls and paddocks

### Town of Woodside Requirements

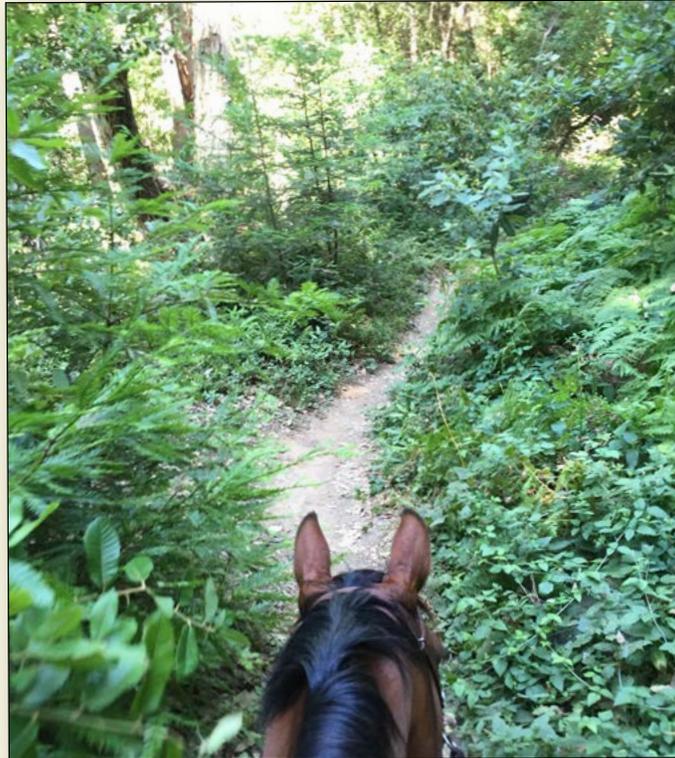
Woodside Fire Department regulations such as 12-foot wide roadway, <http://www.woodsidefire.org/prevention/standards>

Barns are built to specifics of town codes. For example, <http://www.woodsidetown.org> and search for "Accessory Buildings and Uses", "Building Code and Residential Code"

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## CHAPTER 8. TRAILS

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### OVERVIEW

Woodside and Portola Valley have hundreds of miles of trails and over 500 square miles of rural residential properties. The trail system is a combination of public and private pathways which link the community together, crisscross the towns and connect them to 1000 acres of trails in the San Mateo County Parks and the Mid-Peninsula Regional Open Space District (MROSD), where one can ride from the San Francisco Bay to the Pacific Ocean.

The Woodside Trail System connects three county parks, (Huddart Park, Wunderlich Park, and Edgewood Park) and a number of MROSD properties. In addition, the Bay Area Ridge Trail and San Francisco Watershed, can also be accessed by the Woodside Trail System.

### GOALS

*To encourage safe use of the trail system and also encourage “good neighbor” practices for properties that border community trails.*

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## OPTIONS / CONSIDERATIONS

Trail riding can be a wonderful experience, but with all horse activities some precautions should be taken.

Ride with experienced riders if you or your horse are new to the trail system. Horses are herd animals, so perhaps, try to position your horse in the middle of the group.

Be aware of hazards i.e., slippery asphalt driveways, muddy terrain, and busy intersections.

Equestrians share the road and trails with both cyclists and hikers. Always be alert to something that might scare a horse.

Be polite and quiet as you pass through trails that take you through private property.

Consider wearing a riding helmet.

Carry a halter and lead rope along with a cell phone in case you encounter trouble.

If your home borders a trail, be cognizant of plants that may be harmful to horses. Additionally, barking dogs racing up to fences can be very intimidating. Driveways of slick asphalt can be dangerous for trail riders to navigate.



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### **Town of Woodside**

*Private Memberships for Trail riding:*

*Woodside Trails Club – (650) 851-1194*

*Horse Park at Woodside – [www.horsepark.org](http://www.horsepark.org)*

*Map of Woodside Trails – [http://www.woodsidesidetown.org/sites/default/files/fileattachments/mapcl3\\_equestrian\\_trails\\_public.pdf](http://www.woodsidesidetown.org/sites/default/files/fileattachments/mapcl3_equestrian_trails_public.pdf)*

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## B I B L I O G R A P H Y

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Interested in learning more? Check out these resources we found quite helpful!

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- "Air Movement in Horse Barns." *The Horse* (edited press release). (October 8, 2012). The Horse Media Group LLC
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### Chapter 2- Exercise Areas

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- Alison J. Northrop, M.Sc., Anglia Ruskin University, UK
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- Jaime H. Martin, Ph.D., Myerscough College, UK
- Hilary M. Clayton, BVMS, Ph.D., MRCVS, Michigan State University, USA
- Rachel Murray, MA VetMB MS Ph.D., MRCVS, Animal Health Trust, UK

- Lars Roepstorff, DVM, Ph.D., Swedish University of Agricultural Sciences, Sweden
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- "Equestrian Surfaces - A Guide." (April, 2014). The Swedish Equestrian Federation
- Leste-Lasserre, Christa. "Studies Track Horses' Movement Patterns." *The Horse*. (June 15, 2010). The Horse Media Group LLC

### Chapter 3- Fencing

- Iliff Prax, Elizabeth. "A Fresh Look at Fencing." *Practical Horseman*. (August, 2014). Practical Horseman
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### Chapter 4- Managing the Environment

- "Plants Toxic to Horses." ASPCA <https://www.asPCA.org/pet-care/animal-poison-control/horse-plant-list>
- "Guidelines for preparing a Manure Management Plan (MMP)." (2007). Ventura County Watershed Protection District
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- "Fly Control Around Horse Barns and Stables." (2007). University of Kentucky <http://www2.ca.uky.edu/entomology/entfacts/ef514.asp>
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### Chapter 6- Emergency Preparedness and On Site Security

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- "Roadways/Access." Fire Dept. Submittal Requirements. Woodside Fire Protection District

### Chapter 8 - Trails

- California Motor Vehicle Code 21050, Riding an Animal on a Public Highway,  
**2150:** *Every person riding or driving an animal upon a highway has all of the rights and is subject to all of the duties applicable to the driver of a vehicle by this division and Division 10 (commencing with Section 20000), except those provisions which by their very nature can have no application.*  
(Amended by Stats. 1967, Ch. 586.)