

# Building a Horse Arena

TOP TEN TIPS



 **CORNERSTONE  
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# Building A Horse Arena Top Ten Construction Tips

Are you currently planning your new horse riding arena?

I'm sure you will agree with me when I say, organising a new horse arena can be overwhelming. There are so many questions that run through your mind. What's the best way to drain the arena? What materials should I use for my arena base? How can I pick the right riding surface without breaking the budget? In this guide, we walk you through what you need to consider, and tips to making the horse arena construction process as easy as possible.

## So Where Do I Start

Firstly, you need to consider what you would like. Did you want to have a simple outdoor horse arena, or would you like a covered dressage arena for all-weather use? An outdoor riding arena is cheaper; however, an indoor riding arena will ensure a longer lasting arena with less damage caused by heavy rain. What will your horse arena be used for? What size did you want? The standard dressage arena size is 60-metres by 20-metres. This is the same size used for Olympic and Grand Prix equestrian events. For a private training facility, a 40-metre by 20-metre is popular. By answering these questions, it makes the future decision a lot easier.

## Pick Your Location

The next step is to choose where you want to have your arena. Some things you will need to think about picking your location is:

1. The slope of the site
2. The type of soil.
3. Will the arena fit in your desired location?

One of the most significant factors you need to consider is the horse arena drainage. The last thing you want on your arena is pooling of water. Pools of water can create soft spots. These can impact the ride quality and will see a failure of the arena surface and sub-layers over time. Not good. To combat this, you need to make sure the location has adequate drainage. Different soil types are easier to drain than others. By putting your arena on a higher point on your property, you will ensure that water is less likely to pool on your riding ring. Having a roof cover over your horse arena will significantly reduce the impact of heavy rain on your arena surface. However, even with this added protection, if your arena is in a location where water gathers, you will be in for a hard time. A smart location choice will save you *thousands* in drainage costs and other future issues.



## Planning And Preparing The Site

Before we jump in, there are a couple of things we need to organise. I recommend you plan your project for the drier months. There will be many trucks coming in and out of your property. The last thing you want is a truck bogged in a muddy paddock. Consider how you will approach and access the arena. In both the short and long term, the ground leading up to your arena's location will need to allow easy access for trucks and other machinery. Before you start the arena construction, you will need to clear the area and remove any trees and plants. Excess dirt will need to be stockpiled or disposed of. Many times your chosen area might not be entirely flat. You will need to consider whether you want to fill the area to get it level or cut and retain the slope. If your arena is on a sloping block, you will need to make sure that the foundation is correctly retained. **The surface will then need to be compacted** before you move on to constructing your arena. It will erode if not done correctly.

## Horse Arena Drainage

Stormwater control can potentially be one of the biggest issues you will face with maintaining your horse arena. It is a good idea to ensure you have proper drainage early on. **Each site is different, and you will want drainage that can cope with the demands of your site.** The fall of the arena will significantly help with draining water off your equestrian surface. Details such as the soil, top-layers, sub-layer, and your base materials will all influence how well your arena will drain away water. The addition of a roof cover will greatly improve the long-term lifespan of your arena; however, you still need to consider how you manage the run-off from the roof. Some solutions include water storage tanks for covered arenas or directing the water safely to natural drainage systems. If you are building your arena on a slope, you will want to drain your arena down the hill, rather than to cut further into the slope.

Make sure that any edging or walkways don't interfere with the drainage of the arena. You will need to consider where all that water will go once it is clear of the area.

**By installing a properly designed drainage system, you will help increase the longevity of your riding ring.**

A reliable drainage system, will ensure a dry ring for use all year round.

## Picking The Right Materials For Your Arena Base

Your arena base will be made up of a number of different layers. For example, the construction of a simple ring base will start off by excavating to a good clay base or compacted soil. Many people then include at least a 100mm to 150mm layer of gravel that is then compacted. On top of this can be included a layer of lime or pumice. Keep in mind that, this advice is general and it might not work for you. Many different regions have different materials available. Some areas might have an abundance of gravel, whereas another area won't, which means it will need to be imported in, adding to the overall costs. This will often impact what you will include in the layering of your ring base. It is good to research what materials are readily available in your area. Check what materials are available, and then check how much the transport costs will be to have your materials delivered. Transport can often be more expensive than the materials themselves. Often it can cost around \$15-\$20 a cubic meter to deliver your materials. However, if you live close to the material source, you might be able to save on transport costs by paying an hourly rate. Do your due diligence and seek out the best materials locally to reduce your transport costs.

## Getting The Fall Right

The fall is the slight sloping of your horse arena. By including a slight slope, you will ensure that water doesn't pool on the surface. If you have an arena cover, then the impact of water pooling will be significantly less; however, the fall of your arena still needs to be considered. If your arena is on the side of a hill make sure the fall is sloping away from the top of the hill. The fall should only be slight; otherwise, it will affect your riding, and if the water runs off too quickly it could erode your top surface with the heavy rain. You want the water to trickle off the surface.

## Perfecting Your Riding Surface

The riding surface is essential to get right to ensure the safety of your horse, and the longevity of your arena. The thickness of your surface layer should be somewhere between 80mm to 100mm in thickness. The thicker the surface, the softer it will be. You will need to consider whether you want a harder or softer surface. A harder surface can cause jarring injuries, and too soft can mean undue stress on your horse's tendons and leg muscles. It's about finding the right balance for your animals and the activities they will be doing in the arena. Many people will add their surface in 10mm increments till they are happy with the surface level of softness.



## What Material Should You Use For The Top Layer?

There are many options when choosing a material for your surface layer. These include:

1. Sand
2. Fibre
3. Rubber
4. Other commercial made products.

Each has its advantages and disadvantages. The most popular material among arena owners is sand. Sand is usually one of the cheapest materials to use as an arena footing material. It dries out fairly rapidly, which helps in reducing pooling and arena damage. Often people will mix it with fibre or rubber to improve the surface properties. Sand will have different properties depending on the region. Not all sand is made equal. You will want to look at the sand's quality. Is it too fine? If so, it could be blown away in a windstorm. Finer sand is also slower to drain, which means it can run the risk of holding water and be unusable for days. If the sand is coarse, is it round or sharp? Round sand can move too easily under your horse's hooves, whereas sharp materials can be too abrasive on your horse's shoes. Your best bet is to have a mix of both round and edged sand of uniform size. This will ensure that the sand won't move too easily underfoot and won't damage your horse's shoes. Make sure any sand you get has had all the silt and clay cleaned from it. Silt and clay can cause dust problems and over time will cause the arena surface to compact down. Talk to your local suppliers. Many companies will have experience with horse arena surfaces and can walk you through the process. Another good tip is to talk to other local arena owners. Go to their property and check out their top layer. See how it feels and performs. By talking to the owner, you will be able to find relevant local information about what worked and what didn't work for them.

# Installing A Retainer

The retainer is there to stop the surface from overflowing out of the arena. Some people choose to use timber, however, be sure to pick the right one. Others will choose to have a concrete or brick retainer. Make sure that you curve the top of the retainer for the safety of your horses. Many people also choose to include the retainer in the construction of their fence.



# Your Horse Riding Arena Fencing

Fencing is recommended; however, it is a personal choice. There are many different options people choose, including:

1. Heavy rope
2. Plastic wire
3. Steel fencing
4. Hardwood fencing.

The height of your arena fencing should be around 1.2 meters from the surface to the top of your fence posts. We also recommend that the fence should slope outwards slightly. this reduces the likelihood of your leg being jammed against the fence. **If you include an arena cover, we recommend placing your rails on the inside of the shed posts for added safety.** And lastly, don't forget a gate! Situate your gate in a location that can allow tractors and trucks to enter in the future if need be.



## Wrapping It Up

It is an exciting time when the final details of your horse arena are complete. But there are a couple of final details you need to remember. The construction of your horse arena will often result in a lot of dusty areas and large dirt patches. **You want to re-grass these areas as soon as possible.** This will stop any mud washing into your new arena during a heavy rainstorm. You also want to **organise the ongoing maintenance of your dressage arena.** By keeping up a regular maintenance routine, you can ensure that your new horse arena will last. By following these above tips, you can ensure you get it right the first time. Get it done the first time and continuously reap the benefits. If you are interested in building your own horse arena, please contact us.





**Contact us:**  
**Cornerstone Equine Ltd**  
**Phone 0274786488**

email  
[construction@cornerstoneequine.co.nz](mailto:construction@cornerstoneequine.co.nz)  
[www.corners](http://www.corners)



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