

How to Build a Buttress Addition On Your Barn

When my wife Bonnie and I purchased "Village Farm" in historic Waldoboro, Maine (home of the famous five-masted schooners), we did so because of the classic 1840 red three-story barn sitting on the hilltop pasture. The farmhouse built next to the large 30 x 40 post and beam barn was a secondary consideration in our decision to purchase the property. Prospective alpaca owners should not be surprised when life long priorities begin to get shuffled like a deck of playing cards.

In order to get ready for our first four alpacas, I initially installed several plexiglas windows along the east side of the barn, as well as a six-foot opening with a sliding door and entry ramp. Our thought was to keep the alpacas on one side of the barn with a tack room to the center back, leaving space for a work shop on the west side and storage for our tractor, rototiller and other wheeled farm equipment in the front center. However, this meant that our animals would require thick rubber mats to cover the old wooden floor of the 30 x 12-foot east side. Rubber mats can be expensive, and if the animals start pooping in the barn with the first big rain or snowstorm, cleaning up would be difficult.

It was at this point, while speaking with Rob our carpenter, that we decided to build an addition to the barn.

He suggested a "buttress style" addition to the east side with a corrugated metal roof that would stand 10 feet tall at its highest next to the outside wall of the barn. The maintenance free red metal roof, which comes in 14-foot long sections, would slope away from the barn to a height of 7 feet along the outside wall. This would give us a 30-foot enclosure that was 12 feet wide. Since we knew that we would eventually have to separate males and females, we decided to continue the enclosure around the back side of the barn as well, giving us an "L" shaped buttress wrapped around the south-east corner of the barn. This gave us two 30 x 12 foot legs with a 12x12 corner section adjoining them, which we use as a catch pen/birthing area, totaling 864 sq. ft. We used the remaining 10x12 feet of space on the southwest corner to add a 120 sq. ft. storage shed for farm/landscaping equipment.

Once we had decided on the basic design, we began to prepare the site first by laying crushed stone (same texture as sand) on the ground. The stone dust, as it is also called, is easy on the alpaca's legs, makes for easy clean up, and has the side benefit of retarding slugs and parasites. We dug 4-foot holes below the frost line for the 8-inch diameter sauna tubes that held the concrete footings. We used 6"x 6" posts and wall frames of standard 2"x4"s. We designed the walls in sections that were bolted into the side posts so that they could be removed at a later date if we decided on modifications. The walls were made of pine shiplap with large 32-inch square unbreakable Plexiglas windows framed in which allowed for a lot of light. The windows were made so they could be popped out in the summer. Two x six-inch stringers were used spaced 16" apart to support the metal roof. Hex screws with rubber gaskets are used to screw down the metal roof making it leak proof. I installed a shiplap barn door slider on a pair of trolleys on the south side so that a wide opening would allow the sun in. Two

double-dutch doors were installed on the east side.

Eventually, our herd outgrew the main barn, and we built a second barn for our males. However, the two-legged design of the buttress addition allows us two spaces for our girls, perfect for separating crias that need to be weaned. During most of the year, we keep the space inside the barn on the east side open for feeding our animals. They don't not spend much time in there, except to get away from the black flies in the summer, so we never needed to put down the rubber mats on the wooden floor. We use this space inside for daily feedings, as a catch area for giving shots and trimming nails, and for shearing in the spring. For fall and holiday open house events, when we sometimes have 200-300 visitors, we close off this section to the animals, and it becomes "the alpaca shop" as we set up tables and display racks for fiber, yarn and alpaca apparel. During these events, we set up the central area of the barn to greet visitors, provide refreshments, and lay out tables displaying farm photos and promotional materials.

The idea of creating an additional structure off of an existing barn has provided the benefit of using the building to stage all the activities that go along with owning alpacas. The horseshoe shaped loft in our barn is used for general storage as well as for storing a year's worth of square hay bales. We have room for a work shop, a firewood storage area, fiber processing equipment, as well as a tack room--where we keep grain in plastic barrels, a vet supply closet, and halters and leads hung on wall pegs. Along the back wall, we have proudly hung show ribbons (which a visitor can't miss before being led out to see the animals). The best thing is that our alpacas really like the set up. They like the openness that the wide doorways and large windows afford, and they are more comfortable going into a structure with high clearance above. They like the shade and the coolness of the crushed stone floor in the summer. They are protected from the cold north winds in the winter bedding down on lots of straw. We really like being able to walk only 15 feet from our farmhouse back door into the side door of the barn, especially during birthing season.

I estimate that building a structure off of the existing barn reduced our building costs by a third--and I like that!

Terence Callery

Village Farm Alpacas