

Homeowner's Guide

TOP 10 TIPS

for buying a pole barn



Top ten tips for buying a pole barn:

- #1. **Identifying your needs**
- #2. **Determining your building's style**
- #3. **Choose features and accessories**
- #4. **Building codes and permits**
- #5. **Site selection and preparation**
- #6. **Electrical, HVAC and plumbing**
- #7. **Structural and environmental considerations**
- #8. **Lumber, trusses and post engineering**
- #9. **Metal and paint warranties**
- #10. **Choose the right builder**



Top ten tips for buying a pole barn:

#1. Identifying your needs

As the saying somewhat goes, when you fail to plan... you plan to end up with a pole barn you are tired of looking at, or worse, a building you have quickly outgrown. So let's start the planning process by anticipating what your related needs will be. This way, in five years and ideally ten years, your building will not be too small or too big, but still highly functional — and attractive to boot.

Early considerations:

- How tall is the tallest stored item, whether a vehicle or equipment, for work or play?
- How wide is the widest stored item, so you know the minimum open span width?
- Do you want a concrete floor, floor drains, or floor support for unusually heavy loads?
- If a concrete floor, will you pour the slab first or pour after the building is finished?
- Do you want your vehicles to always back in or can they drive in one way and out another?
- Would you like side doors, side walks, canopies or exterior enclosures?
- Will you need space for opening vehicle doors, attachments to vehicles/equipment?
- Options for work or play such as a ventilated area for a paint booth?
- Think about activities requiring a slop sink, kitchen sink, bathroom, or other areas requiring plumbing or electrical, heating or cooling.



Bonus Tip:

There are web-based software tools for doing this, but here's the idea: First make a list of the larger things that will go into your building. Then outline sketch each item from a top-down perspective on individual pieces of paper using a scale of $\frac{1}{4}$ " = 1ft. Cut around each shape and arrange them on quarter inch graph paper representing the floor of your new building. Next, identify your areas of activity, whether for work or for play, and identify the traffic patterns, entrances and exists around all of the items you have identified. This will guide your required square footage. Add 30% more square footage to allow for contingency growth.



Top ten tips for buying a pole barn:

#2. Determining your building's style

If your new building is on the "back 40" of your property, then you may not care so much about its style of architecture. But if the building is within sight of your home, style will matter. The goal is not just to create additional functional space, but to add space that will enhance the value of your property from the standpoints of both livability and curb appeal.

Style has many interpretations:

- Style is personal and post-frame construction offers you a wide range of architectural freedom
- Options are often based on the building packages offered by different builders.
- Style can relate to the silhouette of the building. Choose from a variety of roof shapes such as gable, gambrel, or raised center. Enhancements such as a cupola can further enhance your building's style.
- Style can involve the use of complementary colors for roofing and siding.
- Style extends to the wide variety of window and door styles on the market.
- Style often follows function, such as for equestrian, agriculture, industrial, or religious.



Bonus Tip:

The style of your new building should either match or complement the style of your existing home and property. Style extends to the use of color and trim, such that your new building and your entire property come together with visually pleasing impact.



Top ten tips for buying a pole barn:

#3. Choosing features and accessories

Even if all you need is a simple box design, the “style” of your building can be established and enhanced by a few functional or aesthetic touches. That said, adding accessories is a little like scratching your nose at an auction – each move may cost more money. Options can add up.

A short list of possible accessories:

- Cross bucks on sliding doors
- Cupola
- Double walk in doors
- Dutch doors
- Eave trim
- Exhaust fan
- Fascia
- Gable vents
- 9-light walk-in door
- Overhangs with soffit and gutter
- Post protectors
- Rat guards
- Ridge vents
- Shutters
- Skylights
- Stalls
- Vented closures
- Wainscoting
- Windows



Bonus Tip:

Form should follow function. Look for simple ways to accent or extend the structural elements of your building using complementary colors, trim, accessories, or unique ornamental touches. You do not have to spend a lot more to get an attractive appearance.



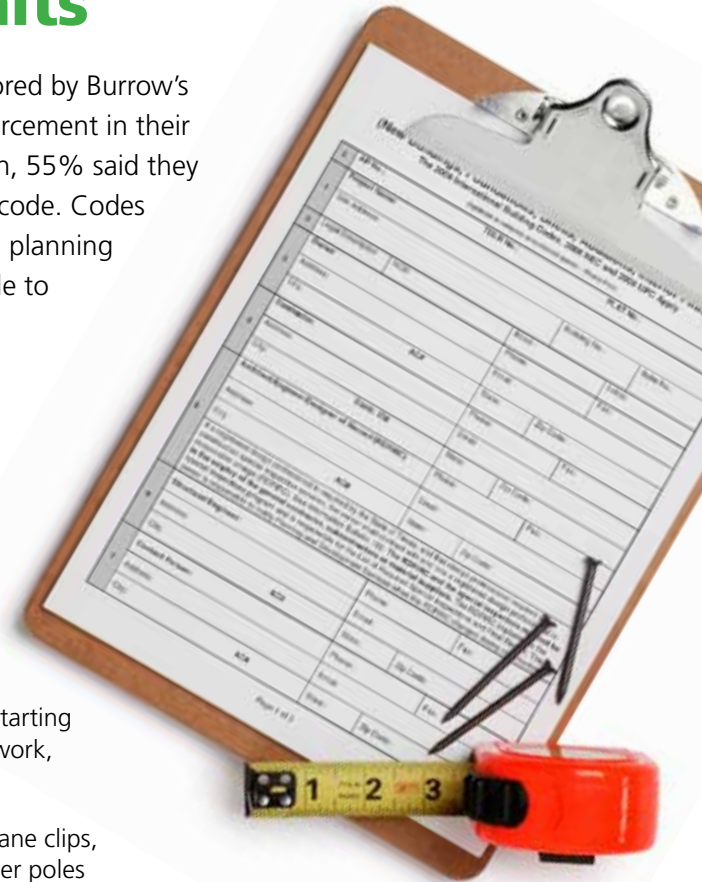
Top ten tips for buying a pole barn:

#4. Building codes and permits

In a recent annual post-frame construction industry survey sponsored by Burrow's Post-Frame Supply, one question to builders was about code enforcement in their areas. Of the 134 post-frame builders who answered this question, 55% said they have needed on occasion to change their construction to meet a code. Codes can be problematic if not clearly understood. Start with your local planning and zoning office or your local building inspector. They will be able to tell you the standards for your community.

Know the rules in your area:

- Some cities will not allow a steel skin building – you must have a brick veneer.
- Almost all residential areas will have a setback requirement, meaning the building must be so many feet from the property line.
- Many neighborhoods have a restriction on how tall you can make the building.
- Many areas want to inspect a building at each stage of construction, starting with the depth of the holes, then they will inspect the wooden framework, then the completed structure.
- Some communities insist on bolting the trusses in place, adding hurricane clips, beefing up the top plate, digging the holes deeper and providing longer poles or adding gravel or a concrete footer in the hole.



Bonus Tip:

Some local code expectations may seem over-engineered when it comes to equating cost with necessity. In our view, codes generally foster a better quality building and we have found it is best to give the inspector what he or she wants. Life, and your project, will go easier that way.



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#5. Site selection and preparation

It's a dirty job, but someone has to do it. We're talking about getting the "dirt work" done correctly, before construction. We have too often witnessed site preparations where to the naked eye everything looked level, but varied by two feet or more.

Basic guidelines for site preparation:

- The construction crew will need a five foot workspace around the perimeter.
- The pad needs to be level, yet taper off outside the building to direct water flow away.
- Have the pad compacted or given time to settle, dozers are surprisingly "soft footed".
- The pad should be well away from power lines and not over underground utilities.
- Know how the heavy delivery truck will get to the site without going over septic lines.



Bonus Tip:

Heavy truck access needs to be planned in advance for several reasons. Consider potential impact on things buried, including gas, electrical, septic and the roots of existing trees. Some trees, such as large oaks, have shallow roots that are highly vulnerable; and the roots of new sapling trees can be damaged without revealing root trauma until years later.



Top ten tips for buying a pole barn:

#6. Electrical, HVAC and plumbing

You began thinking about these requirements in step one, by identifying the kinds of activities you will undertake in your new space. Now let's think in more detail about these requirements.

Things to consider beforehand:

- Know the location of the public utility – the farther the building is from the utility, the greater the cost for trenching or poles and for the wiring, both in length and diameter.
- Think through where you need electric service and any special amperage outlets.
- Consider where you want lights. Do you want lights down the center or over each horse stall? If you put the lights down the middle, will your big RV block the lights?
- You will probably want the outside meter placed out of sight and out of the flow of traffic. But inside the building, your electrical panel should be close to the meter.
- If your space is to be heated or cooled, will the system be in a closet or mounted up in the trusses? Placing equipment overhead will give you more floor space, but the trusses will need to be designed to fit and to carry the weight.
- For plumbing, are you tying into a city sewer or a septic tank?
- If you plan for a bathroom, your rough-in work for the toilet will need to be the right distance from the finished wall. Your plumbing may best be located to come up through interior walls. If a toilet or sink backs up to an outside wall, you may need up to 4" of insulation and a heat source in the bathroom to keep the water in the pipes from freezing.



Bonus Tip:

Your supply decisions may relate to activities in the future or a new piece of equipment you have yet to purchase, such as putting in a laundry room later or buying that big RV in 5 years. Wherever you intend to put such things, whether in back or in front of the building, you may want to provide for it by way of a dedicated, higher amp line and electrical outlet.



Top ten tips for buying a pole barn:

#7. Structural / environmental considerations

It has often been said that when it comes to environmentally sustainable building methods, post-frame construction is about as green as it gets. Inside and out, the materials used in post-frame construction uplift both the architectural vision and the vision for a greener planet. Metal and wood recycling programs can help minimize material waste and help to protect the environment.

Post-frame begins and ends green:

- Lumber is a renewable resource. In fact, there is more forested acreage today than there was 100 years ago, due to highly educated and expanded cultivation.
- Recycled steel is used in the manufacture of the metal siding and roofing that constitute a large percentage of post-frame construction.
- Treated lumber is used for a small percentage of a post frame building. Typically, the only treated products are posts and bottom plates.
- Wood is the building material that is not only recyclable (our supplier's plant pulverizes wood scrap for various uses), but in its cultivated natural state this material source removes carbon dioxide (CO₂) from the atmosphere.
- Post-frame construction, versus stud wall or block construction, lends itself to better insulation due to deeper wall cavities. Even the columns offer an R-value.



Bonus Tip:

Professional post-frame builders contribute importantly to efficient construction methods with minimal material waste and environmental impact. Choosing such a builder assures these pre-cut and sized materials will come together swiftly and with minimal waste on your project site.



Top ten tips for buying a pole barn:

#8. Lumber, truss and post engineering

Mills are usually associated with one of two inspection agencies. They are the Southern Pine Inspection Bureau (SPIB) and Timber Products Inspection (TPI). Grading by these authorities is fairly uniform with respect to such criteria as wane, knot size, checking and skip. SPIB and TPI grade stamps include a mill number to identify where the lumber was produced. What you want to stay away from is mill grade lumber where an individual mill owner determines his own grading system.

Better buildings start with better materials:

- Grading can get confusing due to the different types of wood sources. For example, a number 2 grade of Douglas Fir has the same strength as a number 3 grade of Southern Yellow Pine.
- Wood trusses are engineered based on load factors as well as structural design.
- Wind loads and snow loads vary by location. For Iowa, our trusses are built for a 30 pound snow load and a 90 MPH wind load. In Oklahoma that truss will be built for a 20 pound snow load and a 90 MPH wind load. And for hurricane threatened south Texas, we use trusses built for 20 pound snow load and 120 MPH wind load.
- Be sure your builder knows how you plan to finish the building, as this can impact truss load. For example, you may have it in mind to install a ceiling later, and that can add a significant load to the bottom chord of your trusses.
- Burrow's sponsored a recent survey, asking post-frame builders across the country what types of posts were most common in their areas. Of the 134 builders who answered this question, 44% said solid sawn, followed by 27.6% saying nailed laminated, and 26.9% saying glue laminated.



Bonus Tip:

We may on occasion advise that glue laminated posts are ideal, but for most projects, what is your best value? A 12' tall sidewall with posts on 8' centers in terrain exposure "b" (urban, suburban and wooded areas) is typical. For this application, an independent engineer attested in writing that our 3-ply 2x6 un-spliced nail laminated posts are good for up to 146 mph wind loads; that our 4-ply 2x6 nail laminated posts are good for up to 169 mph wind loads; and that our 3-ply 2x8's are good for up to 208 mph.



Top ten tips for buying a pole barn:

#9. Metal and paint warranties

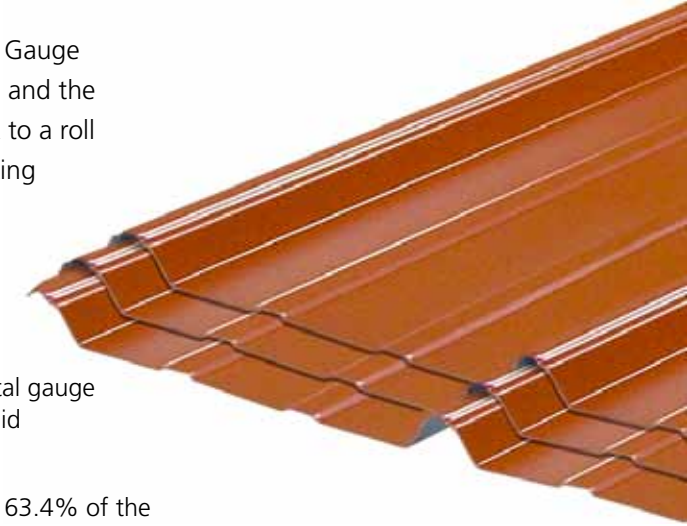
It may sound counter intuitive, but 29 Gauge metal is thinner than 26 Gauge metal. The minimum standard thickness for 29 Gauge metal is .0142" and the minimum standard thickness for 26 Gauge metal is .0187". If you talk to a roll former that buys to a .015 standard, then with 29 Gauge you are getting about 5% more steel, and hence a bit stronger roof or siding.

Some facts and considerations:

- In a recent builder survey sponsored by Burrow's, when asked what metal gauge is most commonly used for roofing in their area, 50% of the builders said 29 Gauge and 44% said 26 Gauge. 6% said they used other materials.
- As for metal siding most commonly used for metal siding in their areas, 63.4% of the builders surveyed said 29 Gauge and 30.6% said 26 Gauge.
- Check to see if your insurance company can give you a lower rate based on the metal passing Underwriters Laboratories 2218 impact resistance test. Your builder's metal supplier should have this UL file number.
- The metal for our panels is 80,000 psi and the substrate is called Galvalume® AZ50. Galvalume sheet steel contains 55% aluminum-zinc alloy. The product has largely replaced galvanized zinc-only metal and most every major steel coil producer offers Galvalume nowadays.
- The least expensive paint system is polyester paint, which typically comes with a 10 to 20 year warranty. A step up is silicone-modified polyester, which allows the paint to stretch as the metal expands or contracts. The warranty for this paint is typically 40 years.
- Some people think Kynar® is the ultimate paint system. The warranty is the same as silicone-modified polyester, but the product costs more. The warranties are typically prorated and do not cover labor.

Bonus Tip:

All paint will fade to some degree, but with a silicone-modified polyester paint, your red barn will not turn pink in five years. The silicone-modified polyester paint system we use for metal roofing and siding is called Valspar WeatherX®. Valspar provides the warranty.



Top ten tips for buying a pole barn:

#10. Choosing the right builder

One sure way to have a post-frame project go wrong is to hire the first handyman you come across who says he can get your building up fast and for a cheap price. Several things are wrong with this scenario, starting with the fact that in this still recovering economy, many handymen are building “pole barns” nowadays, loading their pickup trucks with basic building kits from their local home supply stores and hammering them together in their spare time.

Ways to get the builder you want:

- First and foremost, get references. Chances are very good there are several highly proven and professional post-frame builders in your area. And even then, you should talk to some of their customers. Professional builders will be glad to offer such references, precisely because they are respected professionals.
- If possible, go see a structure built by the builder you are considering. Consider a builder accredited by the National Frame Building Association (NFBA). The NFBA provides builders ongoing continuing education to keep them informed of best practices. Also consider a company with someone on staff that has passed the International Code Council's National Standard General Building Contractor test.
- A legitimate builder should have no trouble providing a certificate of insurance verifying coverage for workers compensation and general liability insurance. A copy of the certificate is issued by the builder's insurance agent at no cost to you or to the builder, and should be available to you within one to three days.
- Call the Better Business Bureau to learn of any complaints lodged about the builders you are considering.
- Get any estimate in writing. Then discuss with the builder anything that strikes you as vague. A hurried quote based on cursory discussion often results in a building that comes up short and leaves you cursing.

Bonus Tip:

To help you close in on your builder selection, ask the leading candidates to clearly explain the process you will undertake together to smoothly and cost-efficiently deliver your new post-frame building. The right builder should cover much of the information contained in this guide, and moreover, you will know what to expect – no surprises.

