

The Steel Building Planning Guide

Seven decisions that set what your building really costs,
and how well it works for the next thirty years.

Most building regrets are decided before the steel ever ships.

A metal building looks simple on a quote: a width, a length, a price. But the number that matters is the one you'll live with, including the concrete, the site work, the finish and every fix you didn't see coming.

We've helped customers plan more than 1,035 buildings since 2022, from backyard shops to barndominiums to commercial buildings. The same few decisions come up every time, and the people who get them right are almost never the ones who chased the lowest quote. They're the ones who planned the whole project first.

This guide walks you through those decisions in the order we'd walk through them with you. Use it to get clear on your project before you talk to anyone, including us.

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01

DECISION ONE

Start with how you'll use it, now and in ten years.

Every other decision flows from this one. The right building for dry storage is the wrong building for a shop you'll heat, and very wrong for a home.

Write down the honest answers to these questions before you look at a single price:

- ☐ **What goes inside?** Equipment, vehicles, livestock, people? Measure the biggest thing you'll ever pull through the door.
- ☐ **Will it be finished or occupied?** Insulated, heated, cooled, lived in or worked in every day?
- ☐ **How often will you use it?** Seasonal storage and a daily workshop have very different needs.
- ☐ **What might change?** A shop that could become a business, or storage that could become living space.
- ☐ **Does it need to look finished from the road?** Neighbors, HOA rules, customers or resale.
- ☐ **Where will you want to expand?** Lean-tos and future bays are easier to plan now than to add later.

ADVISOR TIP

If there's any chance the building will be finished inside someday, say so on day one. It changes which frame makes sense, and it's far cheaper to plan for than to retrofit.

02

DECISION TWO

Choose the right structural system.

There is no single best steel building. There's the right one for your span, your use and how finished it needs to be.

System	Best for	What to know
Tubular steel	Shops, garages, barns and equipment storage under 60 feet wide	Galvanized square-tube framing with a boxed eave. Hard to beat on price in its range, and often the right answer. Insulating it doesn't change that.
Cold-formed steel	Permitted commercial work and buildings that need to look finished from the road	Gutters, downspouts, a real fascia and a properly closed eave come in the package, not as upgrades.
Steel truss	Barndominiums and anything you'll finish inside	Drywall attaches straight to the steel instead of to a second wall built inside it.
Red iron	Warehouses, hangars, churches and large agricultural	For buildings that have to be wide, tall and open inside. Past 80 feet it's the only sensible answer.

Let the width narrow it down

Under 60 feet: most systems are in play, and use and cost usually decide.

Past 60 feet: the options thin out. **Past 80 feet,** there's really one answer.

The mistake we see most is buying a system because it was the cheapest quote, then finding out it can't do what the building needed to do. When you work with an advisor who carries all four, the recommendation follows the project, not the inventory.

03

DECISION THREE

Get the size right: width, length and eave height.

Size drives cost, but not in a straight line. Knowing where the steps are helps you land on a building that fits without paying for air.

Width is the biggest lever

Clear span is the single biggest driver of structure, and going wider doesn't add cost evenly. There are points where it steps up. A few feet one way or the other can move you across one of those points, so it's worth asking where your width sits.

Length is the most forgiving

Length usually scales more predictably than width. If you need more room and you're near a width step, adding length is often the more efficient move.

Eave height follows your doors

Eave height moves the number too, so set it by what has to fit: your tallest door opening, overhead clearance for lifts or equipment, and any loft or mezzanine. Don't guess high "just in case," and don't guess low and regret it.

- ☐ Tallest door you'll need, plus header and track clearance
- ☐ Largest vehicle or equipment, with the door open
- ☐ Future loft, mezzanine or lift
- ☐ Room to walk around everything inside

ADVISOR TIP

Bring your measurements to your consultation: the biggest door, the tallest piece of equipment and the space you need around it. We'll size the building to the work, not the other way around.

04

DECISION FOUR

Plan the site and the paperwork.

The best building in the world still needs a good pad, a way for the truck to get in, and a county that signs off.

Walk the site first

- ☐ **Access:** can a delivery truck and crew reach the pad?
- ☐ **Grade:** how much dirt work does it take to get level?
- ☐ **Drainage:** where does water go when it rains hard?
- ☐ **Setbacks and utilities:** property lines, easements, power and water.

Know what your county requires

Some counties require site-specific engineered drawings. That requirement can change which system is the better value, and it's invisible on a quote until someone asks.

A real example: a tubular building in a county that requires site-specific drawings carries about **\$2.00 per square foot** for them. Cold-formed carries about **\$0.75** for the same thing. On a 40×60, that gap is roughly **\$3,000**, and it rarely shows up on a first quote.

ADVISOR TIP

Tell us your project address early. We'll check what your jurisdiction requires before we recommend a system, not after you've ordered one.

05

DECISION FIVE

Treat concrete as part of the building.

Concrete is usually the second-largest number in the whole project, and it's the one most often left out of the conversation.

Your slab needs to be planned for what sits on it: vehicles, equipment, racking or a finished floor. Thickness and footing depth both change the price, so it pays to decide them with the building, not after it.

Slab thickness	Typical use	Planning cost vs. 4" standard
4"	Storage, garages, light use	Standard
5"	Shops, heavier vehicles	about +\$1.00–1.50 / sq ft
6"	Equipment, commercial use	about +\$1.50–2.00 / sq ft
8"	Heavy equipment, specialty loads	about +\$2.00–2.50 / sq ft

Footing depth	Planning cost
Standard	Included
24"	about +\$1.00 / sq ft
36"	about +\$2.00 / sq ft

Planning numbers only. Your concrete is priced on your own pad size, loads, frost depth and location. The pad also runs a little past the building footprint.

HOW WE DO IT

We line up local concrete crews wherever we build and carry their pricing by slab thickness and pad size, so you see a real concrete number while the building is still being designed.

06

DECISION SIX

Plan the finish before you order.

If the building will ever be insulated, heated or lived in, a few decisions at order time save real money later. Here are two we bring up often.

Ladder legs on a barndominium shell, even at short spans

Ladder legs are twelve inches deep. That depth lets wood framing sit in line with the steel instead of inside it. Without them, you frame inside the steel wall and give up that space along every exterior wall of the building.

The extra steel costs less than the floor area it gives back. On a shorter span the structure doesn't need ladder legs, which is exactly why nobody suggests them.

House wrap at install, especially before spray foam

House wrap puts a moisture barrier between the foam and the panels, so a panel damaged by wind or hail can be replaced without tearing into the insulation. It also gives windows a proper surface to flash against, which is the difference between a window that seals and one that gets revisited.

About a dollar per square foot across roof and walls, decided before the crew arrives.

Also decide now

- ☐ Door and window locations, sizes and framed openings
- ☐ Insulation type and where condensation control is needed
- ☐ Interior liner, drywall or open steel
- ☐ Gutters, trim and how the building should look from the road

07

DECISION SEVEN

Compare total project cost, not quotes.

The cheapest quote is rarely the cheapest building. Neither of the upgrades on the last page is the cheapest way to order a building. Both are the cheaper way to own one.

A building is three numbers, not one: **the building, the installation and the concrete.** Most quotes show you one of those and leave you to discover the others. When you compare, line up all three, plus site work, engineering and anything that has to be corrected later.

	Planned with an advisor	Priced as a quote
What you get	A finished building that works the way you need it to	A building package and a delivery date
Structural system	Matched to your span, use and finish	Whatever the seller carries
Site & concrete	Planned and priced with the building	Left for you to figure out
Engineering & permits	Checked against your county first	Discovered after you order
Details	Reviewed before anything is scheduled	Found after the steel arrives

THE VANTAGE APPROACH

We don't just sell buildings. We sell outcomes. That means sometimes recommending you spend more in one place so you spend less overall, and telling you why.

Questions to ask before you sign with anyone.

- ☐ Why is this structural system the right one for my width and use?
- ☐ Does this price include installation? What exactly is included?
- ☐ Who is pricing my concrete, and to what thickness and footing depth?
- ☐ What does my county require, and are engineered drawings included?
- ☐ Where does my width sit on the cost steps, and would a small change save money?
- ☐ Is my eave height set by my doors and equipment?
- ☐ If I'll ever finish this building, what should I add now?
- ☐ Who is my one point of contact from start to finish?
- ☐ When are the details reviewed, before or after the order is scheduled?
- ☐ Who installs the building, and who coordinates the crews?

What to expect with Vantage

WEEK 1 Consultation How you'll use it, where it's going and what matters most.	WEEKS 1-2 Design & recommendation One system, one plan, and the reasoning behind it.	WEEKS 2-3 Engineering & permits Drawings, approvals and details checked before scheduling.	WEEKS 3-6 Site & concrete Pad prepared and slab poured by crews we coordinate.	WEEKS 6-10 Delivery & install Your building is delivered and installed by crews we coordinate.
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Typical timeline. Your schedule depends on your site, your county and the season.

Start with a conversation.

Bring what you've worked out in this guide. A building advisor will help you turn it into one clear plan, one recommended system and a real number.

Book a consultation · vantagebuildings.com

BOLIVAR, MISSOURI

1014 E Broadway St
Bolivar, MO 65613
Call or text 417-218-8348
quotes@vantagebuildings.com

ST. LOUIS, MISSOURI

5000 Cedar Plaza Parkway, Suite 220
St. Louis, MO 63128
314-536-8688
STL@vantagebuildings.com

Delivered and installed in all 50 states. One advisor from your first call to your finished building, wherever you build.