REVEALED ENGINEERING

VALUE ENGINEERING

OPPORTUNITY CHECKLIST

25 Simple Ways to Save Money on a Job

FORU.S.CONTRACTORS — PRIVATE&PUBLICWORK

2026 Edition — Structure · Envelope · MEP · Finishes · Sitework · Sequencing · Procurement

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Why this list matters right now

Prices for materials are all over the place this year, and they're not moving together. Concrete is up about 7.7% from last year. Aluminum is up 30-40% because of tariffs. Copper wire and pipe are up 22-36%, mostly because data centers are buying so much of it. HVAC equipment costs 10-18% more because of a new refrigerant rule that started this January. And overall, it costs about 8.4% more to build a commercial building than it did a year ago.

That's the reality every contractor is bidding into. This is exactly why value engineering (VE) matters so much right now — it's how you win jobs and still make money. And to be clear: good VE is not about cutting corners. It's about finding the spots where the owner is paying for something that isn't actually adding value, and offering something that does the same job, or a better job, for less money.

One tip before you dive in: don't hand the owner all 25 ideas at once. Pick the 3-5 that actually make sense for your project, put a rough dollar amount next to each one, and bring them up early — while the design is still being worked out, not after the bid is locked in. Ideas brought up early get approved. Ideas brought up late just look like you're trying to take something back.

01 STRUCTURE & FRAMING

1. Trade the roof or floor structure for precast concrete

What to do: If the plans call for structuralsteel onspans that repeat over and over, offer precast concrete (like double-tees) instead.

Why it saves money: This is one of the few VE moves that can save both money and time at once. A real school project did this and saved $365,000 while also finishing three months early.

Watch out for: This only pays off when the spans actually repeat. Also check with your local precast plant early — some of them are booked out further than they used to be.

2. Use beams with holes in them so ductwork can pass through

What to do: Ask the structural engineer about cellular (or castellated) beams instead of plain steel beams. These beams have openings built into them that let ductwork and conduit pass straight through, instead of hanging below the beam.

Why it saves money: This can shrink the floor-to-floor height of the whole building, even by just a few inches. Less height means less steel and less exterior wall material needed for the entire building — one change that saves money in two other places.

Watch out for: Get the structural engineer and the mechanical contractor talking to each other at the same time, not one after the other. If the mechanical team finds out too late, they'll usually say it doesn't fit their ductwork.

3. Keep ceiling heights and column spacing the same everywhere

What to do: Askfor one ceiling height (9 or 10feet iscommon) andthe same column spacing throughout the building, instead of something different on every floor.

Why it saves money: It sounds minor, but it saves labor hours everywhere — drywall crews, MEP crews, and even the owner's future tenants all benefit. It's a saving that keeps paying off long after your crew has left the job.

Watch out for: Check with the architect first. Sometimes a different ceiling height in a lobby or feature space is there on purpose, for a design reason. Don't suggest flattening it without asking why it's there.

4. Use precast, factory-built pieces for anything that repeats in the structure

What to do: For parking decks, bridges, or any structure with the same shape repeated many times, ask about precast, factory-built sections instead of pouring everything on site.

Why it saves money: This is a well-proven move. One major transportation project used precast, factory-cast girders instead of pouring them on site, and it cut construction time by about 20% and used about 35% less concrete. The idea works just as well on a parking garage or any building with a repeating structural shape.

Watch out for: You need real repetition to make this worth it — a one-off shape won't pencil out. Check the precast plant's lead time and get your design locked early, since factories need more notice than a standard framing crew.

02 BUILDING ENVELOPE & EXTERIOR

5. Pair a slightly better envelope with a smaller, cheaper HVAC system

What to do: Instead of pricing insulation and the mechanical system separately, look at them together. A slightly better envelope (better insulation, better windows, fewer air leaks) means the building needs less heating and cooling power to do the same job — so you can install a smaller HVAC system.

Why it saves money: This is one of the rare cases where spending a little more in one place lets you spend a lot less in another. A tighter building just doesn't need as much equipment to stay comfortable.

Watch out for: Don't guess on this one. Get real ASHRAE load calculations and energy modeling done first, or it'll sound like you're just guessing when you bring it to the owner.

6. Use aluminum-look or composite panels instead of solid wood, stone, or heavy metal

What to do: Where the plans call for solid wood, real stone, or heavy metal on canopies or wall panels, offer a wood-look aluminum or composite panel system that looks almost the same from a normal viewing distance.

Why it saves money: One contractor did this on a wood-look canopy and cut the owner's long-term upkeep costs, while keeping the exact look the owner wanted. It's an easy sell because nobody walking by can tell the difference.

Watch out for: Aluminum prices are up 30-40% this year because of tariffs, so get a current price quote before you promise this as a saving — don't use last year's pricing.

03 MEP SYSTEMS

7. Size the HVAC system using real numbers, not a rule of thumb

What to do: Don't let the mechanical design just default to a rough tonnage guess. Ask for actual ASHRAE 90.1/62.1 load calculations and energy modeling before the equipment size gets locked in.

Why it saves money: An oversized HVAC system is one of the most common hidden costs on a job. Getting the size right saves money on day one, and it saves the owner money every single month afterward — which matters a lot on public jobs, where the running cost over the building's life gets scored.

Watch out for: Get this checked and signed off by the engineer of record. If you resize the system yourself without their approval, it'll get bounced back in review and cost you credibility.

8. Look for the same equipment from a different manufacturer

What to do: Find equipment that performs the same as what's specified, but comes from a different manufacturer at a lower price. For example: a fan-powered box that costs about $2,300 instead of $2,600, with the exact same specs.

Why it saves money: This is the easiest win on this whole list. Same performance, same look, lower price. Since nothing about the design actually changes, it's usually the fastest item to get approved.

Watch out for: Make sure the substitute is already on the approved-equal list, or get it approved before you submit it. Otherwise, it gets stuck in review and you lose the time you were trying to save.

9. Lock in your HVAC equipment price as early as possible

What to do: Order your HVAC equipment earlyand lock in the price before it climbs any further, especially with the new refrigerant rule that started this January.

Why it saves money: HVAC equipment is already running 10-18% higher than last year because of that one rule alone. This isn't a maybe — it's already happening. Locking the price in now protects your profit margin from a cost jump that's already underway.

Watch out for: This means the owner needs to be ready to commit to equipment (and maybe put down a deposit) earlier than usual. Talk to them about cash flow before you promise this.

10. Get all the MEP drawings coordinated before anyone breaks ground

What to do: Before you mobilize on site, get the structural, mechanical,electrical, and plumbing routing coordinated on paper — in more detail than the standard design drawings show.

Why it saves money: This isn't about swapping materials. It's about avoiding the field conflicts and change orders that quietly eat away at your profit once the bid is already locked in. For a general contractor, this might be the single most valuable item on this whole list.

Watch out for: This takes real hours from your preconstruction team. Put it in your fee as its own line item — don't do it for free, or you're just moving the cost from the field to your own pocket.

11. Switch copper pipe for PEX where the code allows it

What to do: For domestic water and hydronic piping runswhere local code permits it, offer cross-linked polyethylene (PEX) piping instead of copper.

Why it saves money: Copper is up 22-36% this year because data centers are buying so much of it. PEX costs less than copper, and it also installs faster since it doesn't need soldering — so you save on both material and labor.

Watch out for: Check your local plumbing code and the owner's spec first — some jurisdictions and some owners still require copper for certain uses. Also confirm the manufacturer's warranty terms before you commit.

12. Upgrade to LED lighting with sensors instead of standard fixtures

What to do: Wherever the plans call for older fixtures (like metal halideor plain fluorescent), especially in parking garages, stairwells, and back-of-house areas, offer LED fixtures paired with occupancy sensors and daylight sensors.

Why it saves money: The U.S. Department of Energy has tracked real projects on this and found energy savings of up to 70% in parking facilities that made this switch. The payback is usually quick, since LED fixtures also last longer and need less maintenance than what they replace.

Watch out for: Make sure the lighting levels still meet code and the owner's safety requirements — don't just cut fixture count without checking the numbers. Also confirm the sensors are compatible with any building automation system the owner already has.

04 INTERIOR FINISHES & ARCHITECTURAL

13. Take a hard look at decorative features

What to do: Walk through the design with the owner and point out decorative elements that cost a lot of money but don't really do much. Then offer a simpler version that keeps the same look.

Why it saves money: This is usually the fastest win in any VE conversation, because there's no real trade-off — you're cutting cost without touching how the building actually functions.

Watch out for: Bring pictures or samples, not just a description. If an owner feels like something was quietly cut without being asked first, they lose trust in the rest of your list — even the good ideas on it.

14. Use modular partitions for spaces that repeat

What to do: For offices, hotels, or healthcare buildings, use modular partition systems or a standard room layout for spaces that repeat, instead of custom-building each one from scratch.

Why it saves money: Less waste, less install labor, and it makes life easier for the owner later when they renovate or re-lease the space. It's a saving that shows up twice — once for you now, once for the owner later.

Watch out for: This only makes sense with real repetition — usually 10 or more similar units. Below that, the extra coordination probably isn't worth the effort.

15. Cut downthenumberof different finishproductsonthe schedule

What to do: Count how many flooring, wall, ceiling, paint, tile, hardware, and plumbing fixture types are actually called for, and see how many of them can be combined into fewer standard products.

Why it saves money: Fewer product types usually means better pricing from suppliers, less risk of hitting a minimum-order problem, easier mockups, less spare stock to carry, and a faster install.

Watch out for: Don't drop a product just because two look similar. Check slip resistance, cleanability, acoustics, fire rating, and moisture exposure before you combine anything.

16. Designfinishesandequipment sothey're easytoservice later

What to do: Look at access panels, removable ceiling areas, equipment clearances, filter access, and service routes, and see where a small design change would make future repairs easier.

Why it saves money: A minor tweak now can cut down on labor, shutdowns, and demolition later when something needs to be replaced. Good VE looks at what a building costs to run and maintain, not just what it costs to build.

Watch out for: Loop in the owner's facility team before you finalize this. A detail that saves you money during construction but makes maintenance harder later isn't actually a good trade for the owner.

05 SITEWORK, CIVIL & LANDSCAPE

17. Balance the cut and fill on site

What to do: Look at grading, building pad elevations, retaining walls, and underground utility depths together as one plan, and see how much of the dirt you're already moving on site can be reused instead of trucked in or hauled away.

Why it saves money: A better earthwork balance means less imported fill, less hauling and disposal, fewer retaining walls, and less schedule risk from trucking.

Watch out for: Get the geotechnical team to confirm the soil is actually usable first. Unsuitable soils, contamination, groundwater, or compaction requirements can wipe out a paper savings fast.

18. Use awater-efficient landscapeand irrigationdesign

What to do: Review plant choices, irrigation zones, controllers, rain sensors, and drip irrigation with the landscape designer, and look for ways to cut down on water use without changing the overall look.

Why it saves money: Less irrigation demand means smaller equipment, lower water bills, and less maintenance for the owner over time.

Watch out for: Protect the owner's design intent, and check local water-use rules, the plant establishment period, and fire-safety requirements before you finalize anything.

06 SEQUENCING & CONSTRUCTABILITY

19. Build repeat rooms in a factory instead of on site

What to do: For anything that repeats a lot — bathroom pods, MEP equipment racks, hotel or hospital rooms — have them built in a factory instead of built by hand on site.

Why it saves money: Prefab cuts down on-site labor hours, reduces schedule risk, and wastes less material. In a year when skilled labor is hard to find, that's real leverage.

Watch out for: You generally need 10-15 identical units to make this worth it, and the factory will need your design finalized earlier than a normal job would. Check their lead time before you commit to this.

20. Release trade packages in phases instead of all at once

What to do: Split the bid into phases, so the early trades (site work, structure) can get priced and locked in while the finishes are still being designed.

Why it saves money: This lets you lock in pricing on your riskiest, longest-lead materials early, instead of leaving your whole bid exposed to price swings while the finishes get finalized.

Watch out for: This has to be set up with the owner and design team from the very start. It's very hard to add this in after a project has already been bid as one single package.

21. Get your subcontractors in the room during design, not after

What to do: Push to have your key subcontractors — especially mechanical and structural — sitting at the table during early design, instead of only pricing finished drawings.

Why it saves money: Getting field-level input this early catches routing conflicts and buildability problems that designers often miss on paper. Across the industry, this is the single biggest factor that separates VE ideas that get approved from ones that get shot down.

Watch out for: How much access you get depends on your contract type. CM-at-Risk and design-build jobs make this easy. On a hard-bid job, you may only get one shot, during a formal VE period — so use it well.

22. Combine your site utility trenching into one pass

What to do: Instead of digging separate trenches for water, sewer, electrical, and communications lines at different times, coordinate with all trades to install them together in shared trenches.

Why it saves money: This is a classic site-logistics saving. One mobilization, one round of excavation, and one round of backfill and compaction instead of several — which cuts equipment time and labor on a part of the job owners rarely think to question.

Watch out for: This needs to be planned before digging starts, since it means every trade has to have its utility design finalized and ready to install at the same time. Loop in the civil engineer early so depths and separations still meet code.

23. Work backward from your milestones to find problems early

What to do: Get the team together and work backward from your major milestones, listing out every approval, piece of information, material delivery, inspection, and predecessor task standing in the way of hitting them.

Why it saves money: Catching these constraints ahead of time means less waiting around, less resequencing, less overtime, and less of your crews tripping over each other in the field.

Watch out for: This only works if someone owns each item with a real due date. A planning session that doesn't turn into tracked commitments is just a meeting.

07 PROCUREMENT & CONTRACT STRATEGY

24. Add price-escalation language and lock in materials early

What to do: Write price escalation language into your contract for your most volatile materials, and lock in supply agreements early instead of waiting to buy at the moment of installation.

Why it saves money: Materials aren't moving together this year — steel, copper, and aluminum are all on their own separate price paths. Locking supply in early is exactly what separates contractors who protect their profit margin in 2026 from the ones who get hit by a mid-project price spike.

Watch out for: Frame this as protecting the owner too, not just yourself. A fixed price with no protection can put your company, and their project, at risk if a material spikes in cost after you've already signed. It's a shared risk, not just your problem.

25. Write down your basis-of-design and how substitutions get approved

What to do: For your major equipment and materials, write down the basis-of-design product, the performance it has to hit, what counts as an acceptable equal, and the approval path, all in one matrix.

Why it saves money: It makes substitutions faster to evaluate and cuts down on the back-and-forth that slows down approvals when someone proposes a swap.

Watch out for: Compare the whole package, not just the sticker price on the equipment — installation, controls, commissioning, training, spare parts, and warranty all factor into whether a substitute actually saves money.

Important Note

This document is a practical starting point, not a substitute for project-specific engineering, code review, contract review, commissioning, or professional cost estimating. Product availability, pricing, tariffs, labor conditions, and regulatory requirements change. Every recommendation should be validated for the specific project before inclusion in bid documents or a contract change.
