NORTH STAR GROUP, INC.

Disintermediation as a Development Method

Pricing buildings from components and shortening the construction margin chain

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Overview

Most construction is priced from comparison. A planner takes a recent project of similar type, divides cost by square foot, and applies the figure to the next building. The number that results carries everything the comparable project carried, including every margin paid along its delivery chain.

North Star Group prices from composition. A building is defined as a set of purchasable components, each with a part number, a cost band, and a quantity. The cost of the building is the sum of its parts, computed rather than estimated. The cost of the development is those building costs carried up into a total development cost.

Composition pricing exposes something comparison pricing hides. Between the manufacturer of a component and the same component installed in a finished building, the conventional delivery chain adds several margins in sequence. Most of those margins pay for a handoff, not for physical work on the component. The component does not change as it moves through the chain. On a realistic supply-channel path, its delivered-and-marked-up cost can reach well over one and a half times its direct cost. The worked example below puts that figure on a real component package.

The method buys components owner-direct against a defined bill of materials, contracts installation as a separate scope, and substitutes a disclosed procurement fee for the embedded markups it removes. On an illustrative quadruplex completion package of about $60,000 in furnished components, owner-direct delivery lands near $66,600 against roughly $99,000 through the conventional chain. The worked example below sets out that comparison line by line.

The savings are conditional. Each margin removed transfers a function to the owner. The method depends on a component-level data system that makes owner-direct procurement an ordinary purchasing list rather than a coordination burden. The data system is the condition of the method, not an accessory to it.

This paper addresses the procurement side of cost: how a building's parts are bought. A companion paper addresses the design side: choosing lower-cost building systems before the design is fixed. The two are independent levers, tracked by the same component database, and they are strongest used together.

The ranges in this paper are illustrative. They are drawn from the live component database and from prior North Star cost work. Project-specific figures come from current vendor quotes and the model in question.

Pricing from comparison versus pricing from composition

Comparison pricing reasons by analogy. It assumes the next building will cost what the last building cost, adjusted for size and inflation. The assumption is usually close, because the delivery chain that produced the last building is the same chain that produces the next one. Comparison pricing reproduces the chain along with the number.

Composition pricing rebuilds the number from its inputs: materials, the labor-hours to assemble them, land and sitework, design and permitting, and the financing carry that accrues during the work. Two parts of that number behave differently. One is a physical floor, set by the materials and hours the building itself takes. The other is a structural component, set by how the work is delivered. The floor is fixed. The structural component is the part the method addresses.

The margin stack

A furnished-and-installed component commonly passes through several margins in sequence. The number of layers depends on the channel.

1. **Manufacturer.** The maker of the component. This margin usually remains, since the component is still bought from its maker. At volume it is negotiable.
2. **Distributor or wholesaler.** Breaks bulk and holds inventory. Adds a margin for that service.
3. **Sales channel.** The point of sale to the builder. For a small builder this can be big-box retail, where building-materials gross margin commonly runs around a third of the selling price. Larger and commercial builders rarely buy at big-box retail. They use supply houses, manufacturer representatives, negotiated vendor accounts, and

subcontractor relationships. Those channels carry lower margins than retail, but they still carry a margin. The layer does not disappear when retail is skipped. It shrinks.

4. **Subcontractor material markup.** A subcontractor who both furnishes and installs marks up the material it buys, commonly in the range of ten to twenty-five percent.
5. **General contractor markup, general conditions, and overhead and profit.** The general contractor (GC) marks up the subcontractor's bundled figure and adds overhead and profit (O&P) on the whole hard-cost number, commonly in the range of ten to twenty percent.

These margins compound. Each one is applied to a base that already contains the margins below it. A component bought direct can pass through a supply channel, a subcontractor markup, and a GC markup, and reach the installed bid at well over one and a half times its direct cost. The component is identical at every step. This holds whether the channel is big-box retail or a commercial supply house. Retail makes the gap wider. It does not create the gap.

Two kinds of margin sit inside that stack. One is intermediation margin, paid for a handoff that performs no physical transformation: a distributor reselling, a channel reselling, a contractor marking up another contractor's number. The other is function margin, paid for real work: fabrication, installation labor, genuine coordination, and the bearing of real risk. Intermediation margin is recoverable. Function margin is not deletable. It can be moved to a different party, and it can be priced differently, but the work it pays for still has to be done.

Established practice, uncommon at this scale

None of this is new at institutional scale. Large owners, institutional developers, and public agencies already buy materials owner-direct, already use cooperative and group purchasing, and already run direct-purchase tax programs where they qualify. A large contractor on a major project treats this as ordinary procurement. The margin chain and the ways to shorten it are well understood by the parties that operate at size.

What is uncommon is the same practice on a small or mid-sized project. A quadruplex, a church, or a regular development rarely runs owner-direct procurement, because the coordination overhead has historically cost more than the margin it would capture. Below institutional size, the bill of materials was never assembled at the part level, the staging and purchase-order work had no system to carry it, and the project defaulted to a general contractor and the bundled chain. The mechanism existed. The small project could not reach it economically.

The contribution here is the scale, not the mechanism. The component database lowers the coordination cost enough that owner-direct procurement pays on a four-unit building, not only on a fifty-million-dollar one. The part-numbered bill of materials, the computed proforma, and the standing component catalog turn what was an institutional capability into a repeatable small-project procedure. The data system, described below, is what closes the gap between the two scales.

The method: a building costed from its parts

The component is the unit of the system. Each component carries a part number, a division and work-breakdown code, a supplier reference, and a material cost recorded as a low and a high band. A component is a thing that can be purchased, not a line-item estimate. The database holds real entries: window 25C201, cabinet 25C134, the steel and SIP assemblies, each with a cost range and a supplier link.

The model is a building or unit type, defined as a set of components with a quantity for each. The model's cost is the sum of its component costs at the recorded quantities. Because the model is built from real components, its cost is computed from the catalog, not drawn from a comparable project.

The proforma carries model costs into a total development cost (TDC): hard costs, soft costs, contingency, and developer fee. A change to a component moves the model cost, which moves the proforma. The chain from a single part to the development total is continuous.

The low and high cost bands record risk where it lives. Conventional estimating buries uncertainty in a single blanket contingency and in the padding inside each subcontractor's bid. A per-component band shows which components carry the uncertainty, which allows the uncertainty to be addressed component by component: lock a price, pre-purchase, or substitute.

The delivery structure that matches this system is Owner-Furnished, Contractor-Installed (OFCI). The owner purchases the materials against the bill of materials. The owner then contracts the installer for labor against a defined scope.

Disintermediation of fees

The method replaces embedded margins with disclosed, unbundled fees for the functions those margins were performing. A margin scales with the value of the goods. A fee is set by the work.

The procurement function can be bought as a fee, but the fee is the price of the work, not a discount that appears from nowhere. Procurement is real labor: sourcing, purchase orders, expediting, freight coordination, and returns and defect handling. Procurement firms and group purchasing organizations (GPOs, which aggregate demand across many buyers to reach manufacturer-direct pricing) commonly perform that work for a fee in the low single digits of percent. A GPO can look cheaper still, because the supplier funds the fee, which lowers the buyer's cost without making the work free. The point is the comparison: a procurement fee in the low single digits replaces a stacked channel-and-contractor margin many times its size. The function is the same. Its price is a fraction of the margin it displaces.

Because procurement is function rather than intermediation, it cannot be deleted, only relocated. An owner who cannot reach an outside firm or group performs the work in-house, and pays for it there instead. The cost does not vanish; it moves from an external fee to internal overhead at a similar order of magnitude. The procurement-access section below sets out when each path is available, and what the in-house path costs.

The general contractor bundles two distinct functions: procurement and field coordination. Each can be unbundled and bought as a fee. Procurement goes to a procurement firm or GPO, or to direct purchasing against the bill of materials. Field coordination goes to an agency construction manager or owner's representative (a construction manager, or CM, paid a fee rather than a markup on the trades). The general contractor's value is the bundling itself: one party responsible for the whole. The cost of that bundling is opacity and a margin applied to everything inside it.

A disclosed procurement fee holds only under three conditions. The fee is transparent, with supplier rebates passed through rather than retained. The purchasing volume is large enough that direct pricing beats the contractor-desk pricing the owner could obtain alone. And the delivery timing synchronizes with the installation scope, so that materials arrive when the installer is ready for them.

The cascade

The method begins with one decision: own the bill of materials, buy the components direct, and furnish them to an install-only scope. Several effects follow from that single decision.

The first effect is the removal of the intermediation margins between the manufacturer and the jobsite. This is the margin-stack capture described above.

The second effect is a lower installation bid, where it is earned. A furnish-and-install bid is padded for material price movement between bid and purchase, for lead-time and availability risk, and for the shorts, waste, and defects the installer would otherwise absorb. An install-only scope against a complete, staged, and warranted package removes the basis for most of that padding. The installation rate can fall where the owner-furnished package is complete, staged, warranted, and reliable. The reduction is not automatic. It is earned through procurement discipline. The reverse is also possible. Some subcontractors raise labor pricing when they lose material markup. Others add exclusions, mobilization charges, or delay claims if owner-furnished materials arrive late, damaged, incomplete, or nonstandard. A disorganized owner-furnish raises bids rather than lowering them.

The third effect is a shorter schedule, when the work is not waiting on materials. Material-driven idle time is a common and large source of construction delay. Pre-staged materials allow continuous installation.

The fourth effect is lower carry. Construction financing commonly costs more than stabilized debt, and every month of schedule is interest on the full deployed stack plus overhead. A shorter schedule reduces the interest paid and reaches stabilization sooner.

These effects are not separate line items to be summed independently. They follow in sequence from one procurement decision, and each one depends on the discipline of the one before it.

Where the method applies

The method works most cleanly on component-heavy, repeatable, standardized scopes. These are the parts of a building that arrive as defined products: windows, doors, cabinets, flooring, fixtures, appliances, HVAC units, water heaters, electrical panels, and panelized assemblies such as SIP and steel kits. Repeat housing models, modular units, and kitchen and bath packages fall squarely in this category. The same component is bought many times, the bill of materials is stable, and volume pricing and staging are straightforward.

Field-built, site-specific, and custom scopes are a different case. Sitework, foundations, structural conditions discovered in the ground, mechanical and electrical coordination across trades, and one-off architectural detail are harder to define

as a fixed bill of materials in advance. On those scopes the method runs in hybrid form or stays conventional. The component approach carries the repeatable product content of a building. Conventional delivery carries the field-built remainder. A realistic project uses both.

A worked example

The exhibit below applies the method to one quadruplex completion package: the furnished components that finish four units to occupancy. It excludes sitework, foundation, and structural steel, which fall in the field-built category above. The line items use the component database part numbers. The unit prices are a current market survey, refreshed in June 2026, since the database ranges were entered roughly two years earlier and several have moved. The component-by-component pricing is set out in Appendix A.

The furnished package for one quadruplex includes cabinets for four units, appliance sets for four units, laundry, mini-split HVAC, water heaters, electrical panels, windows, exterior doors, flooring, plumbing fixtures, and roof membrane. At current direct pricing the package totals about sixty thousand dollars. The refresh moved the composition more than the total: appliances, windows, mini-splits, water heaters, and laundry came in higher than the old database entries, while cabinets and roof membrane came in lower, since the old entries for those two read closer to retail or installed cost than to direct material.

Line	Conventional delivery	Owner-direct / OFCI	Difference
Component material, current direct survey	$60,000	$60,000	—
Distributor / supply-channel margin	$15,000	$1,800 procurement fee (~3%)	$13,200
Subcontractor material markup (~15%)	$11,250	$0 (owner-furnished)	$11,250
GC markup and O&P on bundled material (~15%)	$12,938	agency CM fee (~4% on material) ≈ $2,400	$10,538
Furnished-material delivered cost	**$99,188**	**$66,600**	**~$32,600**

The per-line current pricing behind the $60,000 direct figure, with database part numbers and the conventional-channel assumption for each line, is in Appendix A. The decisive version of this exhibit replaces the survey prices with current vendor quotes against a specific North Star model.

On this package, the same sixty thousand dollars of components reaches the installed bid at roughly ninety-nine thousand through the conventional chain, and at roughly sixty-seven thousand owner-direct. In this example, the conventional chain carries the same component package to about 1.65 times its direct cost. Installation labor is contracted separately in both cases. It is roughly comparable, with the conditional reduction described in the cascade.

Carry compounds the material saving. A fully deployed $2 million construction loan at 7% costs about $140,000 annually before considering draw timing. A six-month schedule cuts the financing period roughly in half. The schedule compression that owner-furnished staging supports moves real dollars on the financing line, separate from the material saving in the table.

The direct figures above are unit prices, not landed cost. Freight and, for imported categories, tariffs are real additions on the direct side, and the survey does not yet carry them. A general contractor's supply-house price often has regional delivery already built in, so the honest comparison adds freight, and where applicable duty, to the direct column before it is set against the marked-up column. In 2026 the tariff exposure is material on the imported content of this package: steel, window aluminum, appliances, and the electronics in mini-splits and panels. Landed cost narrows the gap. It does not close it, because a stacked margin many times the size of a procurement fee leaves a wide lane even after freight and duty. Owner-direct also returns a lever a bundled contract does not: the owner chooses domestic or imported sourcing rather than inheriting whatever the contractor bought, which puts the tariff exposure under the owner's control. The freight and tax columns of the quote log in Appendix D are where these are pinned per line, against current rates.

The claim the example supports is narrow. The reduction applies to building content that can be standardized, componentized, quoted, procured owner-direct, and installed through a disciplined OFCI scope. It does not apply to the field-built remainder of a project, and it is not a claim that total construction cost falls by a third.

Procurement access and the exempt-owner advantage

The thin procurement fee described above is reached through a buying group, and the groups divide into two ecosystems that do not overlap. Public, education, and nonprofit owners buy through cooperative purchasing organizations: competitively solicited contracts that a member uses without running its own solicitation. Membership is commonly free,

and the cooperative is funded by a small supplier-paid administrative fee, so the buyer's cost approaches zero. For-profit buyers are not eligible for these. Private owners buy through commercial group purchasing organizations, which aggregate corporate demand for a similar supplier-funded fee. A few organizations run both a public cooperative and a private group purchasing arm under one roof. Appendix C lists representative groups on each side.

The split follows the ownership of the project. A project owned by a government, a school, or a 501(c)(3), which includes a church, reaches the public cooperatives. A project owned by a private entity reaches the commercial groups. The component database and the owner-direct structure operate the same way on either side. The procurement channel is what differs.

Neither channel is open to a small owner by default. A for-profit developer cannot join the public cooperatives at all, so on a private project that door is closed regardless of size. The commercial groups and the independent procurement firms want enough volume that a small developer may not qualify, or may not be offered pricing the supplier cares to sharpen. Coverage is also uneven: many commercial groups are strong in indirect categories such as maintenance, repair, and operations and weaker on project construction materials, so a group that exists is not the same as a group that holds a contract for the windows and cabinets in question.

The fallback is to perform the procurement in-house, which is to say to become the procurement organization rather than hire one. The cost does not disappear in that case. Procurement is expensive work, and in-house it runs at a similar order of magnitude to the outside fee, near the low single digits of percent. At low volume it can run higher, because a buyer and a system cannot be amortized across enough projects; at high volume it can run lower than an outside fee. The component database is what holds the in-house cost near that floor instead of above it, by removing the takeoff, the list-building, and the quoting labor that make procurement expensive. The result either way is the same order of magnitude. The procurement function costs roughly a few percent of materials, by whichever path is open, against the much larger margin it replaces. The access path changes. The order of magnitude does not.

An exempt owner reaches a second saving that a private owner cannot: the sales and use tax on the materials. The default rule in many states is that the contractor is the ultimate consumer of construction materials and owes the tax, even when the project is for a church, a school, or a nonprofit. The customer's exemption does not flow through the contractor's purchase. Florida is the clearest example. Under Section 212.08(6) of the Florida Statutes and Rule 12A-1.094 of the Florida Administrative Code, a government entity or a qualifying 501(c)(3) purchases the materials directly and escapes the tax, through what Florida calls an Owner Direct Purchase program. The program requires strict compliance: the exempt owner issues the purchase order with its exemption certificate, the vendor invoices the owner, the owner pays the vendor directly, and the owner takes title and bears the risk of loss on delivery.

Those last two conditions are conditions the owner-furnished structure already carries. The title and the risk of loss that an OFCI scope transfers to the owner are the same conditions the tax exemption requires. The responsibility the method assumes is the responsibility that unlocks the exemption. For an exempt owner, one structure captures the margin chain and the sales tax together. Florida tax on materials runs about six percent plus a local surtax, so on a sixty-thousand-dollar completion package the exemption is on the order of four thousand dollars per building. The figure is illustrative and the rate varies by county.

The exemption is specific to the jurisdiction and to the conditions. Other states treat contractor purchases and exempt-entity direct purchases differently, and the documented compliance has to be exact, since an improper exemption shifts the tax liability to the owner. The structure should be confirmed with a tax professional for the specific state and entity. North Star Group is not a tax advisor.

Increased responsibilities

The method captures the intermediation margins, and it takes on the functions those margins were paying for. Every margin removed is a function absorbed. The accounting is honest only when both sides are stated.

Material-defect and warranty responsibility moves to the owner. A furnish-and-install subcontractor carried single-point responsibility for both the material and the workmanship. An install-only scope splits the two. The installer warrants the workmanship, and the owner holds the material specification, the receiving inspection, and the material warranty. A defined and repeated catalog reduces the absolute defect risk taken back, because the same vetted components are purchased on each project rather than whatever a subcontractor sourced for a single job.

Procurement coordination moves to the owner. Sourcing, purchase orders, expediting, and delivery logistics are real work. The procurement fee buys this function back, but the owner owns the interface and the accountability for it.

Inventory carry moves to the owner. Staging materials means storage, weather protection, security, and capital deployed before installation begins. Staging just ahead of the crew rather than far in advance limits this cost.

Schedule-interface risk moves to the owner. The materials and the install crew have to meet on the calendar. An owner-furnish arrangement that delivers late makes the schedule worse and raises installation bids, because the installer is now exposed to the owner's delivery reliability. The lower installation rate is available only to an owner the installer can rely on.

The principle that governs the method is that captured margin is matched by function performed. The method does not extract a discount from the chain. It relocates work to the owner and prices that work transparently.

Commercial and legal interfaces

Owner-furnished procurement touches several commercial and legal points that a lender, lawyer, or public partner will raise. They do not defeat the method. Each one is a standard part of construction practice, and each one is addressed in the delivery structure.

Lien position changes when the owner buys material directly. Lien waivers run from suppliers to the owner rather than only through the GC, and the tracking of waivers moves in-house. Builder's risk and stored-material insurance have to cover material the owner owns before it is installed, including material held in a staging yard off site. Defective-material claims run between the owner and the supplier or manufacturer, since the installer warrants only workmanship. Sales and use tax treatment on owner-purchased materials differs by jurisdiction, and for an exempt owner it can become an exemption rather than a complication, as set out in the procurement-access section above. Lenders commonly require approval before advancing against stored materials, and some limit advances on material not yet installed. Bonding can be affected, since a surety underwrites a defined contract scope and an unbundled delivery changes what is bonded. On work with public money, public procurement rules may govern how materials are purchased. Where prevailing-wage or Davis-Bacon requirements apply, they attach to the installation labor scope and have to be coordinated there.

The data system as the condition of the method

Owner-direct procurement is a coordination burden without a component-level data system and an ordinary purchasing list with one. The system is what makes the cascade run in the intended direction.

The system produces a part-numbered bill of materials for each model, a low and high cost band for each component, and a total development cost that moves when a component or quantity changes. It hands a procurement firm a defined purchasing list, which lets that firm operate as pure execution: no quantity takeoff, lower fee, and fewer errors. Without the list, the procurement firm would repeat the takeoff and charge for it.

The system's response is immediate. A change to a component or a quantity updates the model cost, the proforma, and the procurement list together. Scenario comparison is a matter of changing inputs and reading the new total. This response capacity is what makes North Star Group a credible owner-furnisher. A credible owner-furnisher is the condition under which installers lower their bids and procurement firms charge a thin fee.

Without the data system, the same procurement decision reverses the cascade. Bids rise, the schedule slips on late deliveries, and the absorbed functions become a cost rather than a capability. The data system is the condition that separates the two outcomes.

Substantiation

The figures in this paper are illustrative, drawn from the live component database and prior North Star cost work. The decisive version of the cost argument runs a specific North Star development model through the component database, prices its bill of materials against current vendor quotes, and compares the owner-direct total development cost against a conventionally delivered estimate for the same specification. That comparison is available on the live system, model by model, with part numbers attached to every line.

Appendix A: Component backup schedule

The schedule below lists representative components for the quadruplex completion package. Database ID is the part number in the component system. Database Low and High are the ranges entered roughly two years ago. Current direct is a market survey refreshed in June 2026 for the owner-purchased price. Conventional delivered is the same component carried through a supply channel, a subcontractor material markup, and a general-contractor markup, at the rates used in the worked example. Quantities are per quadruplex (four units). Prices are rounded. The named supplier and price evidence behind each current-direct figure are listed in Appendix B.

Component	Qty	Database ID	Source channel	DB Low	DB High	Current direct	Conventional delivered
Kitchen cabinet set (per unit)	4	25C134	RTA / contractor desk	$4,200	$6,500	$2,400	$4,000
Kitchen appliance set (fridge, range, dishwasher)	4	25C290/291/292	mfr-direct / GPO	$500	$1,100	$2,200	$3,200
Stacked washer/dryer	4	25C289	mfr-direct / GPO	$180	$250	$1,200	$1,900
Mini-split heat pump, 12k BTU	6	25C316	distributor-direct	$600	$1,100	$1,000	$1,700
Tankless water heater, electric	4	25C295	mfr-direct	$70	$200	$220	$360
Slider window, 48x36	16	25C201	wholesale / mfr	$75	$200	$300	$500
Casement window, 24x36	4	25C202	wholesale / mfr	$100	$175	$280	$470
Exterior entry door	8	25C337/338	wholesale / mfr	$300	$600	$300	$500
Electrical load center / panel	4	25C250	distributor	$90	$300	$250	$420
LVP flooring, per sq ft	3,000 sf	25C077	mfr-direct / GPO	$2.00	$6.00	$3.50	$5.50
Plumbing fixtures and rough material, per sq ft	3,000 sf	25C342	supply house	$4.00	$6.00	$1.50	$2.50
EPDM roof membrane (material), per sq ft	1,500 sf	25C345	mfr-direct	$7.00	$9.00	$2.50	$4.00

Two shell components are shown for reference. They sit in the field-built or panelized scope rather than the completion package, and are priced per unit of their own measure.

Component	Database ID	Source channel	DB range	Current direct	Conventional delivered
SIP wall and roof panel, per sq ft	25C325/326	Premier / Insulspan	$5.00–$9.00	$8.00	$12.00
Steel wide-flange (W-shape), per lb	25C344	service center (e.g. O'Neal)	$10–$12/ft	$0.65/lb	$1.10/lb

Two patterns in the refresh carry into the underwriting basis. First, the line that moved most is appliances, where current direct pricing runs above the old database entry, because the original figures were entered low or against overseas-bulk assumptions. Second, the cabinet and roof-membrane lines came down, because the old entries for those two were closer to retail or installed cost than to direct material. The completion package total holds near sixty thousand dollars after both adjustments. The conventional-delivered column on each line is the figure the same component would reach through a supply channel and two markups, which is the gap the method captures.

The current-direct column is a market survey, not a vendor quotation. Appendix B lists the suppliers and price points behind it. A vendor quotation against the specific model, with the supplier named and the price dated, is the step that moves this schedule from current pricing to committed pricing.

Appendix B: Pricing sources

The current-direct figures in Appendix A are a published-price market survey conducted in June 2026. The sources are a mix of online wholesale and manufacturer-direct sellers and published trade cost guides. They are surveyed market prices, not negotiated quotations against a North Star account. Two lines, noted below, were inferred or carried from the database rather than independently surveyed. Each entry lists the component, the price point found, and the sources consulted.

Kitchen cabinet set (25C134) — ~$2,400 direct. RTA and builder-line cabinet sellers. NextDay Cabinets (10x10 RTA wholesale $1,200–$4,400); Cabinet Sales Center (builder line from $2,350, traditional RTA from $3,199); RTA Cabinet Store builder series. Retail comparison $4,320–$6,990.

Kitchen appliance set, fridge/range/dishwasher (25C290/291/292) — ~$2,200 direct. Appliance package sellers. Abt.com (four-piece packages $2,373–$3,446); Home Depot Frigidaire suite (four-piece $2,385 promotional, $3,346 list);

LG.com, Whirlpool.com, Best Buy, ABC Warehouse package listings.

Stacked washer/dryer (25C289) — ~$1,200 direct. Laundry-center listings. Whirlpool WET4024HW ($1,446); Whirlpool 3.5 cu ft stacked electric ($1,504–$1,621); Lowe's stacked laundry centers; GE GUD24ESSMWW; This Old House 2026 guide (sets from ~$1,000).

Mini-split heat pump, 12k BTU (25C316) — ~$1,000 direct. Direct HVAC sellers and price guides. MiniSplitWarehouse (12k single-zone $790–$1,133); DELLA ($800–$2,500 single-zone); HVACDirect.com; MiniSplitsforLess.com; HVAC Review Hub 2026 guide (9–12k heads $600–$1,200 equipment); NuWatt Energy 2026 (equipment $1,200–$2,500).

Tankless water heater, electric (25C295) — ~$220 direct. Direct sellers and cost guides. Thermomate ($139.99–$289.99 for 6–14 kW units); Angi 2026 (small electric $90–$250); HomeGuide (point-of-use $150–$250).

Slider window, 48x36 vinyl (25C201) — ~$300 direct. Wholesale and builder window sellers. WholesaleVinylWindows.com (custom from $299); Contractors' Warehouse (48x36 vinyl Low-E ~$299); Menards JELD-WEN Good Series; Sutherlands Alside Fairfield 80. Retail reference: Home Depot Simonton Premium WX 48x36 ($533).

Casement window, 24x36 (25C202) — ~$280 estimate. Not independently surveyed. Inferred from the vinyl-window pricing above for a comparable small unit.

Exterior entry door, steel prehung (25C337/338) — ~$300 direct. Builder and surplus door sellers. Builders Surplus (primed steel prehung $269.99–$299.99); One-and-done install guide (basic steel prehung door $250); Angi 2026 (steel/fiberglass entry from $150).

Electrical load center / panel, 200A (25C250) — ~$250 direct. Panel hardware listings, separated from installation. Home Depot main-breaker load centers ($100–$3,000 range; 200A panel hardware ~$150–$400); 2026 panel cost guides distinguishing panel material (~$150–$400) from installed upgrade cost.

LVP flooring (25C077) — ~$3.50/sq ft direct. Flooring material cost guides. This Old House (LVP material $3–$10/sq ft, standard vinyl $2–$7); HomeGuide ($2–$10/sq ft material); McMillan Floors and other 2026 guides (mid-grade average $3–$6, budget $2.50–$3).

Plumbing fixtures and rough material (25C342) — ~$1.50/sq ft estimate. Material-only reclassification. The database figure of $4–$6/sq ft reflected supply plus rough labor. The $1.50/sq ft figure is a material-only estimate, not independently surveyed. This line should be treated as provisional until it is separated into fixture count, rough plumbing material, valves, drains, pipe, fittings, and bath and kitchen trim, since a single per-square-foot figure hides those parts and is the most attackable number in the schedule.

EPDM roof membrane, material (25C345) — ~$2.50/sq ft direct. Roofing material cost guides and factory-direct sellers. HomeGuide (EPDM material $0.50–$3.50/sq ft); Indy Roof ($1.50–$5/sq ft material); Shuangshi New Material (60-mil factory-direct $0.46–$0.51/sq ft); RoofObservations and FoxHaven 2026 guides.

SIP wall and roof panel (25C325/326) — ~$8.00/sq ft direct. SIP manufacturers and price guides. EZ SIPS comparison (conventional factory SIPS $7–$9/sq ft wall); Lawnstarter 2026 ($7–$12/sq ft); ACME Panel; Premier SIPs; Insulspan; bhumi 2026 material-only data.

Steel wide-flange, W-shape (25C344) — ~$0.65/lb direct. Steel service-center references and beam cost guides. Alro Steel and Benjamin Steel service-center references (~$0.50/lb); HomeGuide (I-beams $6–$18/ft; W10x22–30 about $242–$330 per 22 ft). Project pricing through a service center such as O'Neal Steel.

The two estimate lines, the casement window and the plumbing material, are the next two to confirm against a supplier. Converting any line from survey to committed pricing follows the same step: a named supplier, a written quote, and a date.

Appendix C: Procurement groups

The groups below are representative access pathways, not an assurance of pricing on any given component. The caution to keep front of mind is coverage: a group that exists is not the same as a group that holds a contract for the windows, cabinets, and structural in a given model. Several of the commercial groups are strong in indirect spend, maintenance, repair, and operations, and facilities, and thinner on project construction materials. Fees, eligibility, and current contracts should be confirmed before use. Eligibility is the dividing line: the public cooperatives serve government, education, and nonprofit entities and do not admit for-profit buyers, while the commercial groups serve private buyers.

Public, education, and nonprofit cooperatives. A member uses a competitively solicited contract without running its own solicitation. Membership is typically free, and a supplier-paid administrative fee funds the cooperative.

- **Sourcewell.** A Minnesota government agency serving more than 50,000 government, education, and nonprofit members, with construction and facilities contracts. Free membership; vendor-paid fee in the range of half a percent to one percent. For-profit organizations are not eligible.
- **OMNIA Partners, Public Sector.** The largest cooperative by eligible-agency count, which absorbed the National Cooperative Purchasing Alliance in 2022. Its OPUS platform gives public and nonprofit agencies no-cost access to cooperative contracts.
- **The Interlocal Purchasing System (TIPS).** A national cooperative with one of the largest active contract counts, covering construction and facilities categories.
- **NASPO ValuePoint.** The cooperative arm of the National Association of State Procurement Officials, with contracts spanning all fifty states, the District of Columbia, and the territories.
- **BuyBoard.** A national cooperative widely used by local government and education.
- **HGACBuy.** The Houston-Galveston Area Council national cooperative, with strong public-works and facilities coverage.
- **E&I Cooperative Services.** A purchasing cooperative focused on education.
- Others in the same category include Equalis Group, Choice Partners, and the federal GSA schedules.

Commercial group purchasing organizations. These serve private, for-profit buyers, aggregate corporate demand, and are usually funded by a supplier-paid fee.

- **OMNIA Partners, Corporate.** The corporate and private-equity arm of OMNIA, with a dedicated real-estate vertical for multifamily housing, commercial real estate, and developers, positioned around net-operating-income improvement.
- **CoreTrust.** A private-sector group purchasing organization with roughly seven billion dollars of collective spend and reported average savings near twenty percent on indirect categories. CoreTrust also runs a public cooperative.
- **Procure Analytics.** A specialist in indirect categories, particularly maintenance, repair, and operations, with managed spend above two billion dollars.
- **CoVest Sourcing Network.** A commercial group purchasing organization covering indirect spend categories.

Two organizations, OMNIA Partners and CoreTrust, run both a public cooperative and a private group purchasing arm, so the same name can serve either side of a project through a different door. The choice of group follows the ownership of the project, as described in the procurement-access section.

Appendix D: Vendor quote log

This log converts the survey pricing in Appendix A into committed pricing. Each line is filled from a written, dated quotation against a named supplier, including freight and tax, so the figure reflects landed cost rather than a unit price. A populated log is what moves the paper from a method with market pricing to a method with market-confirmed pricing, and it is the attachment a lender or investor will ask for.

The lines are ordered by priority, weighted by dollar value and by how exposed the survey figure is. The largest dollars in the completion package are flooring, cabinets, and appliances. The most exposed survey figures are the plumbing material and the casement window, which are estimates rather than surveyed prices, followed by the roof membrane, which was cut sharply from its database value. Those are the lines to quote first.

Component	Database ID	Qty	Supplier	Quote date	Unit price	Freight	Tax	Landed total	Expiration	Notes
LVP flooring	25C077	3,000 sf								
Kitchen cabinet set	25C134	4								
Kitchen appliance set	25C290/291/292	4								
Plumbing fixtures and rough	25C342	3,000 sf								estimate line, confirm first
Casement window, 24x36	25C202	4								estimate line, confirm first
EPDM roof membrane	25C345	1,500 sf								cut sharply from

										database, confirm
Stacked washer/dryer	25C289	4								
Mini-split heat pump, 12k BTU	25C316	6								
Slider window, 48x36	25C201	16								
Exterior entry door	25C337/338	8								
Tankless water heater, electric	25C295	4								
Electrical load center / panel	25C250	4								
SIP wall and roof panel	25C325/326	per model								shell scope
Steel wide-flange (W-shape)	25C344	per model								shell scope

Freight and tax are columns, not afterthoughts. They are where the landed-cost and tariff exposure described in the worked example is recorded per line. A quote with an expiration date is what a lender treats as real, since a price without a date is not a commitment. When a majority of the dollar-weighted lines are filled, the worked example can be restated on committed pricing, and the gap in the table will move from illustrative to underwritten.