BEST PRACTICES FOR

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QUALITY ASSURANCE



BUILDERS AND INDUSTRY CONSULTANTS TALK ABOUT WHAT'S WORKING AND HOW TO BUILD AN EFFECTIVE PROGRAM

By Charlie Wardell

ou can gain insight into how well the home building industry is doing regarding quality assurance (QA) from people who scrutinize a lot of builder businesses. Take Kevin Estes, for example. The owner of Estes Builders, in Sequim, Wash., signed on as an evaluator for the National Housing Quality (NHQ) program after winning a Gold award in 2007, in part because he was impressed with how the evaluation process helped his company, which builds around 25 homes per year, create a great QA program.

Estes has since evaluated more than 20 production builders of various sizes and sees the same issues in nearly all of them. "Although all are quick to correct serious quality issues," he says, "they tend to lack systems for documenting the many small errors that come up during a project and for addressing the underlying causes." The problem is that small errors add up: Annoyances such as binding doors and anemic HVAC airflow generate the most customer complaints, and the cumulative effect of those complaints can devour the warranty budget.

Builders that have formal QA programs tell a happier story. At Estes Builders, warranty claims fell by 70 percent since putting a QA program in place, while other builders have seen higher customer referrals, a reduction in cash reserves required by liability insurers, and more success attracting A-grade trade subcontractors. Given the benefits, then, why is it that so many builders lack such programs? It's because there are real obstacles in the way, from the dearth of great trade contractors and project managers, to incentive structures that don't motivate, and unclear quality expectations.

STRUCTURING A QA PROGRAM

Perhaps the biggest secret to overcoming those obstacles is just to get started. Formal inspections are a good first step, but inspectors need to look beyond just flagging defects: Someone should also be analyzing the inspection reports and searching for underlying issues. "We try to get builders to look at the front end and get the right processes in place," says Glenn Cottrell, managing director of Builder Solutions at IBACOS, a Pittsburgh-based consulting firm that helps production builders nationwide create and implement QA programs. Those front-end processes start with design.

Most blueprints offer little to no guidance on how to complete specific tasks, but for consistently good results you really need a library of standard work specifications. That may mean working with the architect to create prescriptive illustrations on how the builder wants various details, such as window flashing, completed. The builder can then include those illustrations in bid packages for trade contractors.

Of course creating drawings takes time, which is why

IBACOS offers its clients a digital knowledge base of best-practice details with good-better-best advice for various building assemblies in different climate regions. The company complements that knowledge base with training. "If you're hiring a new superintendent, the training will show them the do's and don'ts of how you build homes," Cottrell says. The goal: to have the same

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standard practices at work on every one of the builder's jobsites.

That standardization should include how clean and organized the builder keeps its jobs. "Jobsite cleanliness is a good example of how everything sends a message," says Tom Gillespie, former VP of housing with a Chicago-area production builder and a current NHQ examiner. He insists that a clutter-free jobsite with neatly stacked piles of lumber indicates to homeowners that the builder pays attention to detail, and that makes homeowners less apt to scrutinize the work.

RESPONSIBILITIES AND INCENTIVES

It's easier to implement standardized practices if you have clearly defined responsibilities and incentive structures. These responsibilities include what needs to be inspected at each stage of work and who will do the inspections. For the latter, options include an outside firm, the company QA manager, or site supervisors can generate resistance," Cottrell says. They can feel like the inspector is trying to make things difficult for them, the trades, or both.

The trick is to help site supervisors understand that you want to make their job less difficult, which means working as a

partner. "You need to be less a cop and more a consultant," says Ron Stafford, QA manager with Thrive Home Builders, in Denver, which launched a formal program in November of 2016. "People want to do good work, so positioning myself as a resource and encouraging them to call me if they don't understand something has been very effective."

the site superintendent, but you can also supplement these. For instance, Irvine, Calif.-based MBK Homes has an in-house quality-control director, but according to Rick Fletcher, VP of sales and marketing, the company added an unusual final step during the program's early years: It asked a layperson to walk through the finished home. "She worked in our accounts payable department and fit the profile of our typical homebuyer," Fletcher says. "We gave her training and a checklist, then

asked her how good a job we were doing. We learned that just because something is built to industry standards doesn't mean it's right in the customer's eyes."

Be aware that inspections can meet with some pushback from the field—at least at first. "Implementing standardized practices with



It's easier to get staff onboard if you offer the right incentives. Stafford says that Thrive's company culture aims to help employees understand how quality improvements raise profits, so it can base bonuses on profitability rather than on production. Other companies find it more effective to eliminate bonuses and instead to hire smart and provide good compensation. "We make quality an expectation," says Fletcher, who credits a lot of his company's 42 percent referral rate to its effective model is for the QA manager to report to sales and marketing and to have authority to slow down production if necessary to make sure quality is being implemented," he says.

TRADE PARTNERING

The most cited roadblock to a great QA program is the scarcity of A-level trades. But while you can't control the labor pool, you can work to attract the best available trades and to build



a culture that helps them do great work. "The builders I see who are most successful at quality assurance have a collaborative relationship with their trade contractors and seek their trades' advice on how best to resolve issues," Estes says. He adds that while just asking trades for advice is more than most contractors do, the best way to tap into their knowledge is with some variation of the trade council.

Builders that make use of councils take different approaches to managing them. Jasen Torbett, operations manager at Shea Homes, in San Diego, does regular quality walks with the company's trade contractors. "We discuss the project at the jobsite," he says. "We ask the trades what their problems are and how they can help one another do good work." In one community, the electricians were crimping HVAC flex ducts while pulling wires, but it stopped happening after they got together and discussed it. "Our trades appreciate the opportunity to solve these issues, and

PHOTO COLLAGE: ANTONIO DIAZ / 123RF, PHOTO; FENG YU / 123RF, TYPE

quality program. "We have created best practices that ensure quality, and we only hire people who are committed to that."

The chain of command also matters. Don Neff, president of LJP Construction Services, a risk-management and inspection firm based in Irvine, Calif., advises against making the quality manager part of the construction department. "The more their field managers often request these meetings," Torbett says.

A big issue when it comes to trade councils is who will be in control. There are at least two schools of thought. One approach is represented by Gillespie, who believes in turning councils over to the trades and letting them work things out among themselves. "If the builder sits in the seat of authority,

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that can be intimidating," he says. Instead, Gillespie prefers that the builder only be involved at the beginning of a project. "Whenever we started a new community, we would meet with every trade in the critical path, ask them what they needed from us to do a quality job, then act on the results," he says.

An alternate approach is to have a third-party moderator. "We see these discussions as back-and-forth brainstorming sessions between the builder and its trade partners," says Brandon Hart, a senior consultant with Continuum Advisory Group, in Raleigh, N.C., who often facilitates trade councils for

home builders. "We have an agenda of items that need to be discussed based on current challenges in the field." And though it's good in some cases to just have the trades present, Hart usually wants to include representatives from

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the builder's management, construction, and purchasing teams.

One advantage of Continuum's model is that besides solving jobsite issues, the facilitator is in a good position to

steer discussions to high-level goals, such as how to make sure homes are ready for each trade on schedule—something that encourages quality work. "Our goal is to help the builder become the 'Builder of Choice' for trades, so that the trades show up on time and send their best crews," Hart says.

INSPECTIONS DONE RIGHT

Most builders say that software is critical to standardizing the inspection process, regardless of whether you do the inspections in-house or contract them to a third party. The software should let the inspector clearly identify defects and it should also include a way to flag recurring issues or nascent problems.

Neff's inspectors use an app the company developed inhouse called CaptureQA, which lets them photograph defects, annotate them with descriptions, then send them to the builder's representative with color-coded borders: red for deficiencies, yellow for scheduling issues, and green for jobs done right. MBK uses Procore. Inspectors send notices about issues, including the due date for corrections, to the responsible trade as well as to the general superintendent and the VP of operations. Thrive Home Builders is using FTQ360 construction inspection and punch-list software. Project managers go through preprogrammed checklists on a tablet or smartphone, and Stafford audits them to make sure everyone is doing them the same way. PMs can only see the homes they are working on. "It helps keep them focused," he says.



All of these programs let the builder generate reports showing how specific projects and subs are doing. "We can track trends and see where we're having issues, so if a crew is having trouble installing windows correctly, I can meet them at the site for a training class," Stafford says. "The trades really appreciate this type of support."

The cumulative effect of this attention to detail is less frustration for the builder and its customers. And because so few builders have systematic QA programs, the ones that do can really differentiate themselves. "By taking small steps to create a pain-free experience," Estes says, "you end up with really happy customers." **PB**

Charlie Wardell, a freelance writer based in southern New England, has covered the business of residential construction for more than two decades.