I began writing this column at the end of a week in which building cycle time came up at least 10 times. I took questions and listened to moans and groans from old clients, new clients, prospective clients, and from many participants during the Housing Innovation Alliance conference in Denver. I heard nothing positive. Mostly there was gnashing of teeth over the time required to build our homes, which has only increased since emerging from the big housing crash a decade ago.

There are myriad contributing factors, including regulation, permitting delays, and the trade shortage. Yet much of the lament sounded like complaining about the weather, which I’m convinced people love to do because no one ever says to them, “Well, do something about it!” When you think about it though, there is a lot you can do about the weather. You can plan for it, prepare for it, make accommodations for it, and, if it really drives you nuts, move somewhere else. There are clues there for home builders.

Some decades ago, I worked for a Minneapolis-based consulting firm. My office was in Chicago and it amazed me how everyone there constantly complained about the weather. TV news folk led into the weather segment with some variation of, “So, Jim, just how bad is it going to be this week? Will winter ever end in Chicago?” Then I’d hop a plane to Minneapolis where it was 20 degrees colder with far more ice and snow. The news teams there had an expressly different take: “Jim, we’re ready for another winter wonderland weekend with sledding, skating, skiing, and building snowmen! Tell us what we can expect.” Chicagoland occasionally experienced a mild winter, thus the residents seemed to feel that was by rights what they should expect each year.

Contrast that with Minnesota, which never saw anything but the deep freeze. But, rather than complain, Minnesotans resolved to just deal with it. Perhaps their Nordic heritage is a contributing factor. At any rate, they prepared their vehicles, dressed for the weather, had the equipment to clear the snow, and laid in plenty of extra provisions. They literally embraced their winter.
One Minneapolis January day during a company meeting where associates had come from across the country, a southern contingent began griping about the snow and cold. The locals put up with it for a few minutes and then, as if by some secret signal, they all got up, taking their trays with them, and moved to another table. It got a good laugh, but the message was clear: They didn’t want to hear from the winter whiners. This was Minnesota. It’s supposed to be cold. Deal with it. That night, the company event was tobogganing in -5º F and light snow. Exhilarating!

I’ve attended hundreds of largely forgettable company receptions centered around bland appetizers, vegetable platters, light beer, well-drinks, and cheap chardonnay, but that winter event in Minnesota is one I’ll always remember. We had a great time.

I was reminded of it while listening to the umpteenth person lament the current state of cycle time and the seemingly insurmountable obstacles to solving our inflated schedules. I’d be the last guy to suggest you learn to love your outsized cycle time. However, I do suggest you should, in effect, embrace the problem as a start toward improving it, and the first order of business is to define it: When does the building cycle start? How do we treat the “soft-cycle” elements versus the construction cycle? The metrics are tricky, to say the least.

DEFINING CYCLE TIME
Let’s begin with the goal of sales contracts for to-be-built production homes. “Spec homes” muddy the calculations, so we’ll deal with those later. Community startup cycle time prior to a project opening is another important issue that we’ll tackle in a future column. So, for now, let’s call a “signed sales contract” the beginning of the cycle and “close of escrow”—sold unit with title transferred—the end. Job one is to break the process down into manageable subcycles that can be tracked and analyzed. We’ll call these “cycle-time phases,” and yours will vary a bit due to local process, customs, and terminology, but here are the five I suggest.

Phase I: Contract to permit
Phase II: Permit to dig
Phase III: Dig to frame start
Phase IV: Frame start to final
Phase V: Final to close

Considering these phases of cycle time, you immediately see why attempts to compare builder to builder are fraught with complications. In fact, it’s sometimes difficult between two operations of the same company, especially if they build different product lines or sell in different markets. As we’ll see, the only phase consistently defined enough to somewhat reliably compare among builders is Phase 4: Frame Start to Final, which may or may not correspond to certificate of occupancy, or CO, and will vary greatly by type of product, number of stories, and local material preferences.

The bottom line: Every builder must measure each phase at the start and stop points that make sense locally. Measured consistently over time the feedback is incredibly helpful as both an evaluation of your systems, processes, and performance, as well as an early indicator of problems. The key is understanding how fails in any one phase affect total cycle time. Each element demands focus, discipline, strong process, continual measurement, feedback, and process improvement.

PHASE I: SALES CONTRACT TO PERMIT
The sales contract as the start of Phase I is straightforward, as is permit issuance for the end. But the process for getting there varies both by your internal process for fully spec’ing out a home with the customer and your local permitting authorities. The world has gone largely to design centers, but this always adds days in either Phase I, Phase II, or both. And the permit process can differ greatly from one municipal authority to another, even varying by which reviewer in the office gets your application for permit.

Permit requirements can also be very different depending on the local authority. Some are flexible; a footprint and basic black-line plans with measurements will suffice. Others want virtually everything specified, closer to full construction drawings with address-specific plans, elevation details, and even colors.

Challenge yourself. First, have you clearly defined the documentation required for each location you build? Second, what can you do to speed up your internal process for getting that information complete and in the format required for each one? Third, is there something—anything—you can do to hasten the permitting authority internally? Finally, ignore the importance of relationships here at your own peril.

I’ll never forget how, years ago, while building an addition on our home, things bogged down at the local permitting office. I’d left my previous builder employer at that point, but one day I walked into the permitting office ready to do battle. Unlike previous trips, that day I wore a hat and jacket with the logo of that home builder, who’d worked tirelessly to build relationships with the city; everyone from field inspectors to the permit office to members of the zoning board. When the clerk saw the logos, the waters parted and the sun broke through the clouds. Based on the relationship, the logjam was broken and the permits sailed through. Lesson learned. (I did call the local division president of that builder to thank him for use of the uniform.)

PHASE II: PERMIT TO DIG
Some builders get this done in a day. For others it takes a month or longer. Delays here, as in Phase I, may not eat up as much money as when construction starts, but the developed lot carry cost is no different and every unit that piles on top of another during the process adds complexity and overhead burden.

What is your detailed process that shows exactly the necessary steps to move from permit to dig? Could you send it to me within 10 minutes if I asked? If you can’t, begin there. How much time is being eaten up here (or in Phase I) by your options and selections process—especially if you operate a design center. There are costs to that. The biggest delay here is often an incomplete start package that fails to lay out for each supplier and trade exactly what is in the house, with absolute final plans and specifications. Anything less is just ripping up money. How long does it take you to get the start package out after
the permit is issued? How long until the lot is staked? Is the lot ready for foundation dig? Track Phase II from the day the permit is approved to the day digging begins for the foundation. Every house. Every time.

**PHASE III: DIG TO FRAME START**
The obvious variables here are soils, drainage, and foundation type. The amount of rock to remove for basement foundations in Pennsylvania requires vastly more time, trouble, and sometimes dynamite, than laying down a monolithic slab in Oklahoma. Then you have crawlspaces, walk-outs, English basements, and a plethora of slab types. Within the triangle bounded by Dallas, Houston, and San Antonio, for example, I’ve counted at least six slab varieties, each requiring different amounts of labor and material. Post-tension is a great system and solves many problems but it takes extra time and trips to work into the schedule. For basements, there are technologies, such as precast concrete foundation walls, which dramatically shorten the required time.

As in Phases I and II, comparing builder-to-builder isn’t helpful unless you’re building the same foundation by the same method in the same market. For any single builder in a local market, however, most of these variables are either constant or predictable, so a clear process can and should be outlined, followed, and tracked continually.

Remember though, the final measuring point here is actual frame start, not merely “ready to start laying down bottom plates.” The number of foundations you see sitting around waiting for framers to appear is a nationwide problem. Ignoring it won’t fix it.

**PHASE IV: FRAME START TO FINAL**
This is what we traditionally think of when cycle time raises its head. Again, there are numerous variables by product design and type of foundation the house is built upon. We can easily identify more than 100 specific steps by 30 to 40 suppliers and trades during this phase of the process.

Most builders find it helpful to break Phase IV down further into elements such as frame start to mechanical inspection—sometimes called “rough”—then mechanical inspection to internal inspection, where the goal is 100% complete. Lastly, you track internal inspection to “final.”

The trickiest part of this phase is defining what constitutes “final.” It’s more than a certificate of occupancy, which comes after all inspections are complete, yet there still may be considerable finish and touch-up work to do. It should mean the home is 100% ready for sale with no further inspections or rework required. In practice, a lot of fudging goes on here. Since the downturn, we’ve seen the time allowed from internal inspection to final increase by one to two weeks, sometimes more, around the country.

Stare this cycle-time killer down hard and ask “Why?” at least five times. That will lead you to the answer, and perhaps then you can begin to correct it. Local terms and breakdowns will differ by builder, but determine what makes sense to your team and track all elements. TrueNorth provides a helpful measurement tool for Phase IV called the “Saved Day Calculator.” This Excel template lets you determine the true total potential of a saved day in your schedule and, rest assured, it’s far more than most builders realize. (Email info@truen.com to get a free copy.)

**PHASE V: FINAL TO CLOSE**
Long ago, I worked with builders that allowed no more than three days between internal inspection and final, and they consistently closed the home within 24 hours after final. That’s a rarity today.

Presuming you have an honest and accurate measure for final, what’s your average number of days to closing? Spec building can make a real mess of both Phase IV and Phase V calculations, as many builders hold homes, allowing customers to make a few cosmetic choices, which sometimes evolve into changing out carpet, cabinets, counters, appliances, tile, etc. Most of these changes bury a lot of profit right along with them. But by measuring well, you’ll get a handle on just how much your sales strategy affects cycle time and what that’s costing you.

**TALK IS (NOT ALWAYS) CHEAP**
If your cycle-time measures are set up well and you track them continually, you’ll quickly accumulate sufficient data so your processes—as Brian Joiner, one of the great Deming disciples described it—“will talk to you.” They’ll tell you what’s working and what’s not. And they’ll show you what’s a temporary “special cause” glitch, or one-off item, versus a systemic “common cause” problem that must be solved. You’ll quickly learn to listen to the voice of your process through cycle time, and what you hear and understand will change your game.

The initial reaction from your people to learning of a new goal for cycle-time reduction will likely be negative—after all, they never have enough time today as it is. But they’ll quickly learn that virtually everything gets easier, especially for field personnel. It’s counterintuitive, for example, but a superintendent’s job is much simpler at a construction cycle of 90 days than at 180 days. We’ll get into that next month, along with the biggest impact from cycle-time reduction of all: increased ROI.

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