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## CASE STUDY: CORNERSTONE HOMES AND WADE HOMES

# Cornerstone Homes and Wade Homes Produce Dramatic ROI with CG Visions, a Leading CAD, BIM, and 3D Visualization Systems-Integrator

Turn-Key, Third-Party Drafting Service & 3D Models Reduce Design Times by Nine Weeks and Cut 28 Days Off the Home Building Schedule

Since founding Cornerstone Homes and Wade Homes in 1997, Tony Hardebeck has developed a reputation for building quality, one-of-a-kind custom homes. With a degree in Building Construction Technology from Purdue University, and years of on-the-job training (he framed houses for nearly a decade), Tony has the knowledge and experience of a production-focused builder, yet he brings that mind-set to custom projects. Tony and his in-house staff of seven people (not counting subs) have built up these two “sister” companies for two distinct buyers. Cornerstone Homes offers high-end homes that run between \$400,000 and \$1 million plus. They range in size from 3,000 to 7,000+ square feet. For mid-market buyers, Wade Homes offers homes that are 1,800 to 2,900 square feet; they sell for less than \$400,000.

Whereas many homebuilders are happy just to be in business, Cornerstone Homes and Wade Homes are actually doing remarkably well. In 2011, Tony Hardebeck and his team will start six homes in each company (Cornerstone and Wade) for a total of 12 starts. To protect his margins, Tony has automated many of his processes, often with customized software and systems he has honed over years of operations. He doesn't use a CRM sales-automation system, because all of his sales are through personal contact with the customers. For accounting, he uses Quickbooks, and for estimating, Tony has created an elaborate spreadsheet with a 350-line estimating template, and a 950-line work order system. He also uses those 950 items to walk his clients through the options selection process.

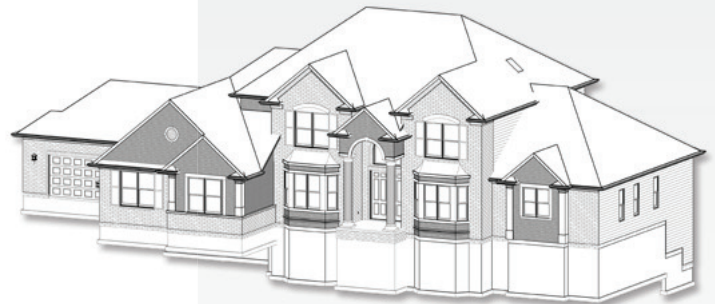
### **Turn-Key 3rd-Party Sourced Architectural Services**

During the home-design process, Tony Hardebeck works with the client to get the concept of the home roughly sketched out.

“We never build the same house twice,” Tony said, “but we do take parts and pieces from other completed projects to create the perfect custom home plan for the client. With my framing background, I can easily draw up sketches for a cost-effective and structurally sound home.”

***“...the team at CG Visions has brought a level of efficiency and ease to processes that used to be major, costly headaches. They have been great partners, and we would never go back to the other 3rd party design model operations we were running before discovering CG Visions.”***

***Tony Hardebeck,  
Founder, Cornersone Homes  
& Wade Homes***



Still, rough sketches and renderings are no substitute for working drawings, during construction or for engineering review and code approval. Here's where Cornerstone Homes and Wade Homes have really innovated, by using turn-key, third-party drafting and architectural services. Instead of carrying in-house staff in a drafting department, Tony Hardebeck works with CG Visions.

CG Visions is widely acknowledged as the homebuilding industry's leading systems-integrator for CAD, BIM, and 3D visualization solutions. Today, Cornerstone Homes and Wade Homes take profitable advantage of the full range of CG Visions' services. Working in Vertex BD, CG Visions utilizes Tony's sketches to efficiently create lot-specific home designs that are fully custom. With rapid turn-around times (a matter of days) performed by CG Visions' staff, this drafting process results in a data-rich 3D model. The 3D model is used by the teams at Cornerstone Homes and Wade Homes to view (as a 3D PDF) and actually manipulate, so that anyone can see exactly what the structure will look like, including intersecting roof planes, interior design elements, and placement of windows and openings.

After a initial client review with just Tony, both the client and Tony visit the CG Visions' main office, and all three groups collaborate and interactively work on the home design, e.g. modifying openings, changing around windows on the fly. That meeting usually takes around two hours, as they work to perfect the placement and proportion of everything in the new home. Homebuyers truly relish this experience, because it's so different than the typical review experience where everyone just stares at 2D "black lines on paper." With a 3D view, the buyers unmistakably understand sightlines and spatial relationships. As a result, the buyer takes a greater level of "ownership" of the design. This type of collaboration can also be performed virtually over web meetings with equal ease. (Working with buyers who are relocating in any home-building process is always a challenge, but this approach can engage those clients as never before.)

At this point, the home plans are finalized, but the resulting 3D model is much more than just a pretty picture. It's actually a detailed, rich architectural plan that Tony can use for estimates and to "pull" his highly accurate bill of materials (BOM).

"With a precise 3D 'as built' model and accurate working drawing, I give the plans over to my subs and suppliers with the click of a mouse. My lumber vendors create working drawings for the floor system and roof trusses utilizing structural software, as well as perform the engineering," said Tony. "And here's the great part. My subs bid off very accurate BOMs. Before we went with CG Visions, I suspect that some of my subs were padding their costs with excess materials that they didn't end up buying. Now I know – to the last sheet of drywall and the last stick of 2x – what goes into the project. For the first time in my building career, I really know that I'm getting just what I pay for."

## About Cornerstone Homes

For more than 14 years, Cornerstone Homes and Wade Homes have been providing quality, one-of-a-kind custom homes in the Lafayette, IN area. Today, their ability to create distinct quality homes, backed by superior customer service, has earned them a reputation as one of Tippecanoe County's most-respected homebuilders.

**Company affiliations.** Cornerstone Homes is an active member of the Builders Association of Greater Lafayette (BAGL), National Association of Home Builders (NAHB), the Better Business Bureau, and the Greater Lafayette Chamber of Commerce.

**Recognition.** Our commitment to superior craftsmanship earned Cornerstone the coveted title of "Best in Show" for the 2006 Parade of Homes, along with the following:

- 2007 Parade of Homes - Best Exterior, Interior, Kitchen, and Master Bath
- 2007 Small Business of the Month-September.
- 2008 Constructech Gold Vision Award for implementation of new technology
- 2009 Parade of Homes - Best Bath, Best Interior, and best Exterior

Learn more: [www.BuildWithCornerstone.com](http://www.BuildWithCornerstone.com).



## **Dramatic ROI as CG Visions Steps In**

“We use CG Visions for all our drafting and architectural plan services. We don’t carry any drafting or architectural staff,” Tony Hardebeck added, “and it’s proved much more cost-effective to move to this turn-key service model. We had a relationship with a third party Softplan vendor, but the cycle-time from concept to lot-specific plan-document sets was 12 weeks, and it was very cost-intensive. Now we are turning all design around for new projects in two to three weeks. This condensed timeline not only allows me to pull permits and get in the ground quicker, but it conveys a sense of pace to the homebuyer. Plus, by moving this quickly and efficiently, it underscores the feeling with buyers that they are working with a homebuilder who is going to adhere to an established schedule and keep their project moving forward.”

While reducing cycle-times, Tony Hardebeck also discovered savings in two other categories: field change order and building cycle time reduction.

“At both Cornerstone Homes and Wade Homes, we have all but completely eliminated field changes,” said Tony, “saving us a bundle. You see, in a 2D plan set, the building professional may know exactly what he’s looking at. He can imagine the finished space. But the homeowner can’t envision the finished structure from 2D. Today, I can’t tell you how many times I’ve had a client step into their new home and say, ‘Oh, it’s exactly like what we saw in the 3D model.’ The use of client visualization and design saves us weeks in the design cycle time, and the avoidance of change orders saves us four weeks – yes, that’s 28 days – in the building cycle time.”

Now, with CG Visions’ enhanced plan services, which include a customer design experience, the homeowner doesn’t simply see the structure in full 3D, but they truly comprehend their future home. This ensures everyone; including the homebuyer, Cornerstone Homes’ and Wade Homes’ staff, and the entire trade base has the knowledge of the final design intent.

“In all of our drafting operations – and the many downstream activities that drafting could either positively or negatively affect, like estimating and scheduling – the team at CG Visions has brought a level of efficiency and ease to processes that used to be major, costly headaches. They have been great partners, and we would never go back to the other 3rd party design model operations we were running before discovering CG Visions.”

## **About CG Visions**

For the home building industry in North America, CG Visions is the leading provider of turn-key outsource CAD and Building Information Modeling (BIM) solution implementation and consulting. As a “technology agnostic” systems-integrator, CG Visions offers BIM software consulting, back-office software integration, panelization, home plan input, training, media services, option management, digital marketing services, and its flex floor plan configurator, e-HomeInVision.

Learn more: [www.CGVisions.com](http://www.CGVisions.com).



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