



INFORMATION FOR ABOUT RESOURCES TOOLS PRACTICES NEWSROOM SEARCH

PATH Case Study

Better Building Blocks Make Better Homes

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"As with many buildings products, exterior surfaces of AAC must be protected from moisture. We use an impermeable synthetic stucco system that helps avoid moisture issues. The exterior stucco finish depends on what the client wants, but we usually use a sand or steel trowel finish. Regular 3-coat stucco is permeable, which is why we use synthetic stucco. For interior wall finishes, we apply a scratch/brown stucco coat topped with regular drywall mud, and usually a smooth Santa Fe finish. Other wall options include painted or veneered plaster left unpainted. Our interior partition walls are wood-framed and receive a 5/8" gypsum board finish to match adjacent walls."



WORKING WITH THE MANUFACTURER, THE TRADES, AND BUILDING CODE OFFICIALS

"When we built our first home with AAC, TruStone America representatives were out there on the first day of our job showing us how to use it, helping lay the first blocks to get our crew comfortable with the product. Now, TruStone simply provides detailed shop drawings and then our structural engineer provides any custom construction details that may be required."

Technology Highlights

This project included the following PATH-profiled technologies:

- [Autoclaved Aerated Concrete](#)
- [Concrete Floor Finishes](#)
- [High Performance Glazing](#)
- [HVAC Equipment and Ducts in Conditioned Space](#)
- [Low-VOC Paints](#)
- [Solar Water Heating](#)
- [Xeriscaping](#)

"The electrician is the subcontractor most affected by the use of AAC block. It's a whole new way of pulling wire and installing J-boxes, switches, and outlets. They have to use a skill saw to cut out 1½" deep x 1½" wide channels to accommodate romex and j-boxes. A circular skill saw cuts through AAC like butter, but protective eye equipment and respiratory masks are a must because of the dust. Regular screws, clips, and metal shields are used to fasten the romex or conduit in place. We then use channel metal and a special patching material from the AAC manufacturer to cover all the channels made for the electrical chases. We like to keep the plumbing out of the walls, so we fur out the plumbing walls using hat channels to create a cavity for piping and then penetrate the wall rather than the roof to accommodate plumbing vents. Dust is the main reason subs may not like working with AAC, so sometimes we end up doing the cuts ourselves."

"Building code officials were naturally curious about AAC when we first submitted plans to their building department, but once they reviewed the testing results, [code compliance standards](#) and structural engineering calculations, they were willing to approve its use. The city of Scottsdale is actually a pioneer when it comes to advanced and sustainable development technologies and has been extremely supportive."

SCHEDULING AND SUPPLIES

"There is about a 2-3 week lead time from our AAC block supplier, but given that there are only a few suppliers in the U.S., we are just plain lucky that a manufacturing plant is located so close by. Otherwise, transportation costs could be prohibitive until more plants are built."

TruStone America currently has two manufacturing plants, one each in Arizona and New Jersey, and is working to open another in Louisiana or the Midwest. Aercon Florida and Texas Contec are the other two domestic AAC suppliers.



"Since most of the homes we build are in the Senora desert, with a lush and beautiful terrain, we try to minimize the impact of our projects on the land," says Edwards. "We make every attempt to be as environmentally respectful as possible."

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