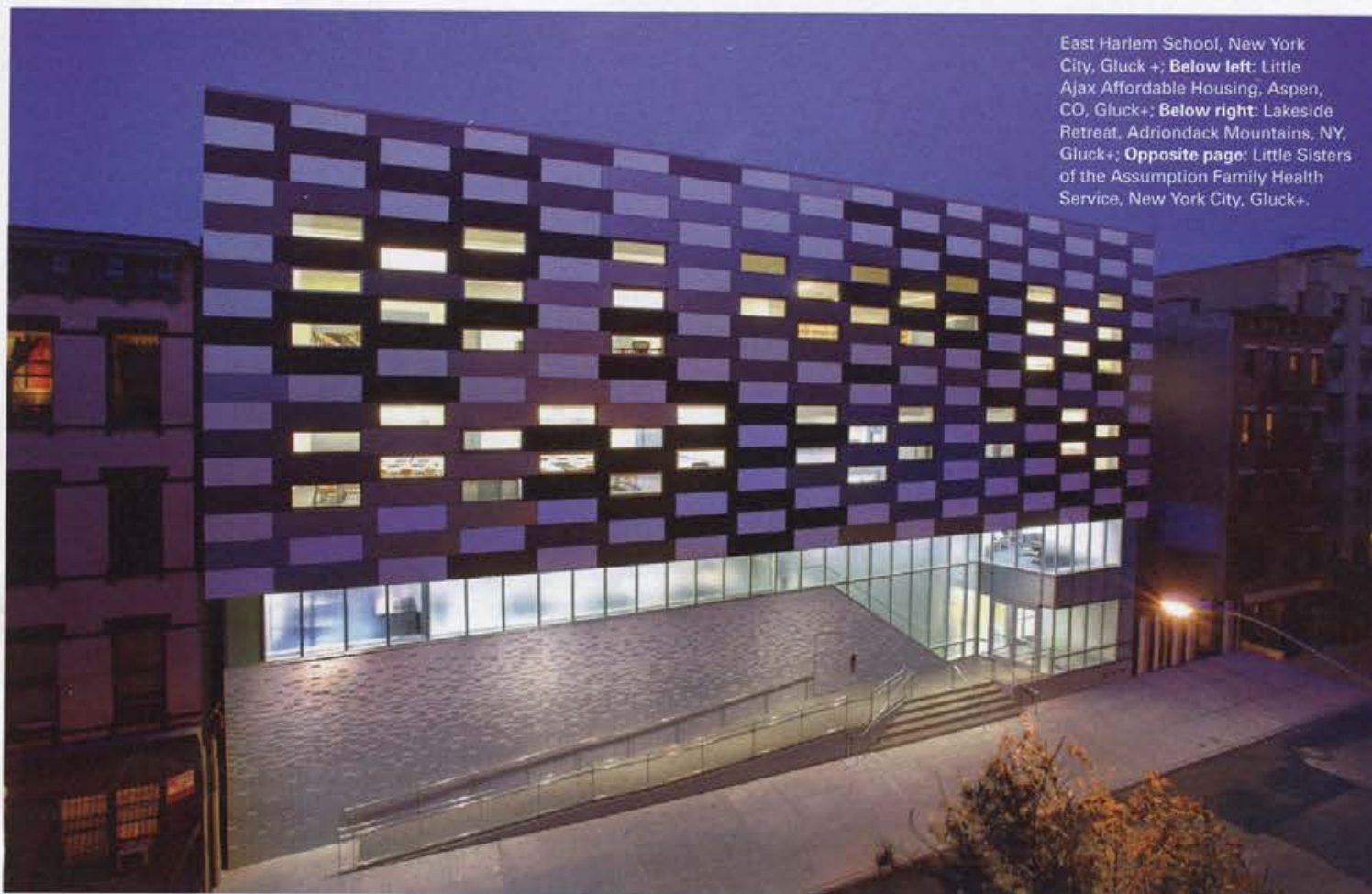


Anna Bergren Miller looks into how architect-led design-build can deliver more for less

INSIDE ARCHITECTURE'S ONE-STOP SHOP

LITTLE SISTERS OF THE ASSUMPTION FAMILY HEALTH SERVICE

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East Harlem School, New York City, Gluck+; **Below left:** Little Ajax Affordable Housing, Aspen, CO, Gluck+; **Below right:** Lakeside Retreat, Adirondack Mountains, NY, Gluck+; **Opposite page:** Little Sisters of the Assumption Family Health Service, New York City, Gluck+.



CLOCKWISE FROM TOP: ERIK FREELAND; COURTESY GLUCK+; STEVE MUNDINGER

"The typical process of architecture is broken." So begins a slideshow on the website of GLUCK+, the New York firm known for its practice—and advocacy—of architect-led design build. Design-build differs from conventional project delivery in that a single firm is responsible for both design and construction. Proponents of the method argue that by repairing the breach between architecture and building design-build benefits both clients and architects, and produces better designs.

"I did this for years without really talking about it," said GLUCK+ principal Peter Gluck. "For some reason in the academy, as soon as you talk about building something, it's dirty in a way. That's a schism that exists in the profession that's detrimental to the making of architecture. We're fighting against it, we're really trying to change the profession."

While some are more tempered than Gluck in their defense of the

method, design-build practitioners are unanimous on one point: working as both architect and contractor changes the way a firm does design. Design-build negates the idea of design for design's sake, and instead prioritizes the finished product. "Everything we design and draw is thought about in terms of constructability and cost," wrote Kevin Eckert and Andrew van Leeuwen, partners at Seattle's BUILD, on their firm's blog. "We don't do theoretical work, design for competitions, or go after awards."

Design-build offers potential benefits to clients, architects, and the buildings themselves. By establishing a single point of responsibility, the practice eliminates a major source of client frustration: conflicts between the architect and contractor. "It's amazing how much time gets wasted, and money, trying to figure out how to blame someone else," said GLUCK+ principal Stacie Wong. "We can only point the fingers at ourselves,

and that takes about one second."

Clients save money under design-build, though how much is up for debate. BUILD suggests that the process reduces project costs by about 10 percent. The most widely cited figures, touted by the Design-Build Institute of America and other proponents of the method, come from a 16-year-old study by the Construction Industry Institute (CII) and Penn State, which found that design-build lowered unit costs 6.1 percent over design-bid-build. For Katherine Hogan, co-owner of tonic design | tonic construction in Raleigh, North Carolina, the financial advantage of design-build is harder to pin down, yet nonetheless real. "There are efficiencies in the process," she said. "It's not percentage-wise that there's a savings, but there's a cost savings in time, management, and responsibility."

Design-build also saves time. The CII/Penn State report found that design-build projects had a

12 percent faster construction speed and 33.5 percent faster delivery speed compared to design-bid-build. Tonic co-owner Vincent Petrarca argued that the benefit stems from streamlined communication. On a conventional project, a fear of recrimination can slow even email correspondence to a crawl. "If time is money and communication is the problem, then there is this savings for the client," he said. "Now we can do a house in six to eight months to build, [plus] a couple months to design."

The savings inherent to design-build make it possible to offer design services to clients who would not otherwise be able to afford them. Much of GLUCK+'s recent work has been for non-profits, like the East Harlem School. "Not-for-profits, one thing they don't have is money," said Gluck. "They can't afford cost overruns. So we're able to pin the tail on the donkey, we guarantee our prices. The normal process simply cannot

do that."

Design-build can also serve a wider range of private clients. Under design-bid-build, a property owner must pay for architectural drawings up front, before applying for a construction loan. "That's why a lot of people don't have architects," said Petrarca. "It's an economic model that limits creativity." Taking their cue from speculative builders, tonic rolls their design fee into the mortgage. "This model makes modern architecture available to more people," explained Hogan.

Architects as well as clients benefit from the method. On a design-build project, the architect controls the design throughout the process. "Working this way just gives us so much more freedom, freedom from the tyranny of the contractor," said Gluck. "We don't have people telling us we can't do things, or that that detail is too complicated or won't work."

Architects in a design-build practice participate in construction profits and collect any savings generated through efficiencies. "You get to define what reward means to you: put it back into architecture, put it in your pocket, or do less work," observed Petrarca. In addition, having both design and construction projects on the table can keep a design-build firm going during a downturn. A single project provides tonic with steady work for about eighteen months, said Petrarca, while a conventional architecture practice would have to take on three or four jobs to cover the same period.

Design-build can improve the quality of design, as architects and subcontractors work together to solve problems. While designing the Rank Residence, for example, tonic experimented with a mockup of the house's vertical siding built by their roofing subcontractor. "We were enrolling them in the process to make sure we had the correct details," said Hogan. "That way we didn't have to draw it, then have them reinterpret it later on: we were figuring it out as a team."

The nuts and bolts of design-build are more complicated than conventional architecture practice. The designers must maintain two licenses as well as two types of insurance, which sometime forces an artificial separation between the design and construction elements of the firm. Tonic began as two companies, explained Petrarca "because our state AIA laws were against the architect being in two different [roles]. It's a pro and con depending on the situation. I think if we had to do it again, it would've been more like GLUCK+," which operates as a single commercial entity.

But even at GLUCK+ the streamlining only goes so far. Most projects there operate on separate design and build contracts. "It really is superficial simply because there is no existing standard contract that

Art as Shelter, Raleigh, NC, Tonic Design; **Below left:** Chiles Residence, Raleigh, NC, Tonic Design; **Below right:** Crabill Modern, Hillsborough, NC, Tonic Design.



CLOCKWISE FROM TOP: JIM WEST; RAYMOND GOODMAN; JIM WEST

represents what we do," said Gluck. "We often just use the standard contracts because it's less confusing to clients and their lawyers." Separate contracts require extra attention to billing. "We often talk about it as you're wearing two hats, throughout the day you're switching," said Wong. "Everybody is very conscious of how they spend their time."

Interaction with subcontractors encourages innovations in documentation. "We can draw anything we want, but we have to have our [subcontractors] be able to understand an interface with the technology," said Petrarca. "They typically haven't gone to architecture school, so we've always

kind of catered to them in terms of what we need to produce." GLUCK+ has developed a system of sequential drawings targeting each trade. Besides making life easier during construction, said Wong, the drawings save money by removing some of the guesswork from the bidding process.

Design-build's detractors say the method puts architects at greater risk of litigation. Gluck disagrees. "The fear is that there's much more liability," he said. "Our position is there's much less liability because you control the quality of the work. Why would you design as an architect and have all the personal liability and then give it to somebody else to execute?"

Design-build does produce more paperwork—and more stress. "It's another business, it's another operation," said Gluck. "It's a lot easier just to make a sketch on a napkin and call that design." Firms transitioning from conventional to design-build practice can find it hard to navigate the regulatory structures involved. BUILD was audited several times during its first five years. "It was a trying time and we have more gray hair (and unfortunately less hair in general) as a result, but we can now operate with confidence that we are checking all the appropriate legal boxes," wrote Eckert and Van Leeuwen.

Practitioners of design-build say they see two opposite responses to

their work from fellow architects: dismissal and interest. "I talk to a lot of people and they say they really don't like it," said Hogan. "They see design-build takes the architecture out of it. But when you look at it, [design-build] firms are doing really critical work."

Other designers are genuinely interested in understanding the design-build model. Curious architects interrupted Hogan and Petrarca during a recent lecture on their work. "Every one of them wanted to know how we figured out our fee, how does it relate to insurance," said Petrarca. "We never got to the rest of our slides because we were all talking about money."

Design-build is not for everyone,

said Hogan. "There are really great firms that do just architecture. This is the path we've chosen in our context, in our history. It appeals to some firms and not to others." That said, many who have practiced this way are thoroughly convinced. GLUCK+ offers conventional architecture services to some clients, said Wong, but "situations like that reinforce in our mind how much more program, building, architecture a client gets when we do design-build. For us the proof is in the pudding; we really know because we experience it both ways. It's hard to fully convey how much better it is."

ANNA BERGREN MILLER IS A FREQUENT CONTRIBUTOR TO AN.

