

CHALLENGE

Build a four-story residential building using as many innovative building systems and products as possible, to prove to the industry that there are in fact better ways to build that don't compromise quality, budget or schedule.

SOLUTION

Implemented a design-build strategy using new technologies and innovative materials combined with sound design, open communication and collaboration, pre-manufactured panelized building materials and streamlined scheduling.

RESULT

Partnered with Freres and leveraged the use of its mass timber Mass Ply Panels with other pre-manufactured, panelized construction materials to complete Project One in 24 working days, reducing cost and shortening the timeline.



GURNET POINT SELECTS MPP

When Gurnet Point Construction decided to employ a design-build approach on Project One, they partnered with Freres Engineered Wood Products and used MPP to help achieve their goal. Gurnet Point benefited from Freres' ability to deliver precisely cut, pre-manufactured Mass Ply Panels for faster onsite construction, achieving their objective of streamlining and shortening the build process and completing the four-story residential building in record time — 24 work days.

SUMMARY

Looking to maximize budget, work within a very restricted job site, test new technologies and improve efficiencies, Gurnet Point's General Contractor Scott Maclellan put his vision of a "smart" design-build process to work on Project One and selected Freres MPP to help speed construction on the four-story, residential building in Oakland, Calif.

In collaboration with Social Construct, Macy Architecture, DCI Engineers and Clavalo Construction, Maclellan incorporated technology advancements, robotics and innovative building materials to improve efficiencies and jobsite productivity.



Twenty-four working days into the build, the four-story residential building stood completed. Using MPP and other pre-fabricated materials allowed Gurnet Point to build much faster than would have been possible with traditional stick framing materials, especially due to not needing lay-down space onsite.



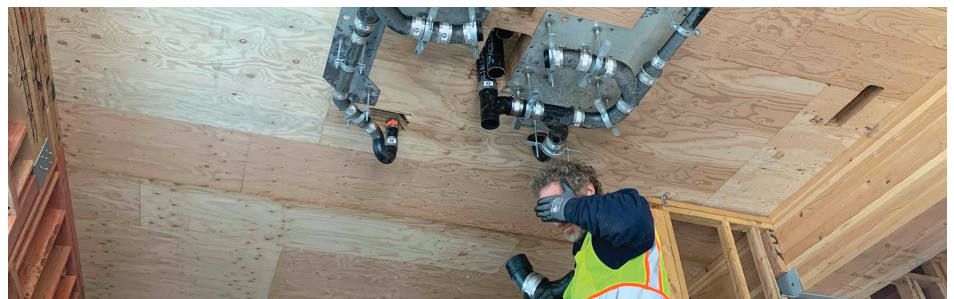
With a goal to decrease construction time on a very tight site with no lay down areas, they turned to pre-manufactured off-site construction methods to maximize efficiencies.

Freres' MPP was selected for the floors and roof in tangent with selectively placed moment frames for lateral forces and light frame panelized wood walls for the stud walls. Fifteen thousand square feet of Freres' MPP was precisely cut to fit the layout with its sophisticated Computer Numerical Control (CNC) machine, allowing for fast onsite construction, with each floor consisting of 19 unique MPP panels. The CNC machine also provided pre-cut openings for mechanical, electrical and plumbing.

"There is no other project in the world using these combinations of innovative building components," said Maclellan. "This 'design-build' prototype project leveraged every innovative product available to us and truly created an entirely new building technique. And, together, those products were able to assist Clavalo Construction, the framer, to erect this four-story building in 24 days."

According to Maclellan, this structure was originally scheduled to take three months to frame, and the overall project 12 months from start to finish. In addition to the added time, on-site storage of traditional stick framing materials takes up significant space and requires a number of more frequent deliveries, which become a nuisance for the neighboring properties.

The design-build prototype was a huge success, saving time, money, resources and allowing for the project to be delivered on a faster schedule and on budget. By managing the supply chain, delivery times, subcontractor's schedules and using prefabricated panelized building materials, Gurnet Point was able to cut the average building time by 25 percent.



503.859.2121
FRERESWOOD.COM