

APA CASE STUDY

Luxury Townhomes Tap Into Load-Carrying Capacities of Glulam Beams



Winfield Gate's English architecture offers a stately, high-end curb appeal that's telling of the custom luxury inside the houses.

Located in Houston's River Oaks area, one of the most affluent neighborhoods in the country, the townhomes in Röhe & Wright's Winfield Gate development are a world away from what buyers traditionally envision attached housing to be. The four-story, 4,000- to 6,000-square-foot custom homes are soaring in size and replete with high-end features and thoughtful details, from the fully outfitted roof decks to the chef's kitchens to the rock-solid structural frames.

The gated community of 22 townhouses targets active empty nesters who are downsizing from larger single-family houses and seeking a lock-and-go lifestyle and a walkable, semi-urban environment, without sacrificing their discerning tastes.

Glulam beams from APA member-manufacturer Anthony Forest Products Company play an integral role throughout the homes' all-wood structural frames. Most notably, the glulam beams span the full width of the floor systems, from 22 to 25 feet. By carrying the load from exterior wall to exterior wall, the glulam eliminates any need for interior load-bearing walls that would interrupt the homes' open layouts and sightlines. "There's no question that the glulam helped us achieve our design goals," says Andy Suman, partner at Röhe & Wright, who notes that the lack of interior load-bearing walls also will preserve the flexible nature of the layouts, allowing homeowners to make changes as their lifestyles shift.

Project Summary

PROJECT NAME:
Winfield Gate

DEVELOPER, BUILDER:
Röhe & Wright

LOCATION:
Houston

COMPLETED:
Fall 2014

ARCHITECT:
Preston Wood & Associates,
Houston

ENGINEER:
Hendricks Engineering



The glulam, combined with hurricane strapping and tie-downs, also helped meet the area's high-wind load requirements. For the remainder of the floor system, the team specified engineered open-web wood trusses, topped with 1-1/8-inch tongue-and-groove OSB subflooring.

Röhe & Wright turned again to glulam beams for the window headers and some of the garage door headers; the glulam provides greater stability versus dimension lumber, helping the frames stay straight and avoid movement.

The glulam beams come in 3-1/2- and 5-1/2-inch widths to match 2x4 and 2x6 framing, and in depths to match all joist, truss, and engineered wood floor and roof framing. As laminated composite products, the beams offer higher reliability and strength, while lessening the likelihood of warping, twisting, cupping, or shrinking. The use of glulam was comparable in cost to, and in some cases less expensive than, other options offering similar span capabilities.

Each home is fully sheathed in 1/2-inch plywood, a requirement for all of the company's projects.

The attention to detail throughout the robust wood frame is representative of the care and commitment to quality visible elsewhere. Each one-of-a-kind unit includes distinctive features such as custom millwork, wine storage rooms, a chef's kitchen on the second floor, his-and-her master bathrooms and closets on the third floor, private elevators, a stained-wood-paneled library and home theater on the fourth floor, and two- and three-car garages. The development's English architecture, which the designers flew overseas to study in person, is reminiscent of the hand-carved limestone exteriors typical of London.

With its thoughtful targeting of a niche demographic, customization and luxury that's resplendent to the eye, and superior performance behind the walls, it's little wonder the unique homes at Winfield Gate sold out prior to their late-2014 completion date.



Glulam beams span the full width of the rowhouses' floor systems, helping to eliminate interior load-bearing walls, and were also used for window headers and some garage door headers.



The four-story, 4,000- to 6,000-square-foot townhomes of Winfield Gate feature all-wood structural frames, including glulam beams, OSB subflooring, and plywood sheathing.

We have field representatives in many major U.S. cities and in Canada who can help answer questions involving APA and APA EWS trademarked products. For additional assistance in specifying engineered wood products, contact us:

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Form No. Q120
Issued September 2014

