

LSF Panelization Solution for Woodland Setting

Nestled in a 1000-acre forest at Discovery Ridge in southwest Calgary, the Wedgewoods Chateaus is a 4-phase, 70,790 m² (762,000 ft²) condominium project designed by GMH Architects of Edmonton, the heart of which is a light steel framing panel system by Mega Building Systems (MBS) of Vancouver.

The exterior of each building features stone to a height of from 1.2 m to 3.05 m (4 to 10 ft), above which is light-brown stucco with a bellyband of beige, and a 152 mm (6") strip of beige around every window. "Disguising" a flat EPDM roof, the parapet is framed to support steel cladding, providing the appearance of a mansard roof with peaks and turrets.

For owner builder-developer Statesman Corporation of Calgary, this was their first experience with a light steel framing system. Director of Construction Frank Castronuovo says, "This project is five storeys, so wood wasn't an option. We went with the MBS system because after a lot of research it appeared the most time-saving and cost-effective solution."

Phases 2 and 3 are each 26,105 m² (281,000 ft²), comprising 207 residential units. Phase 4 will be 18,580 m² (200,000 ft²) with 158 units plus an amenities area with a health club and social centre. The MBS system was chosen because of its year-round con-



The steel cladding of the mansard roof is attached to 25.4 mm (1") wide by 1.22 mm (.048") deep Z-bar subgirts applied horizontally at .61 m (2 ft) on centre to the roof framing.

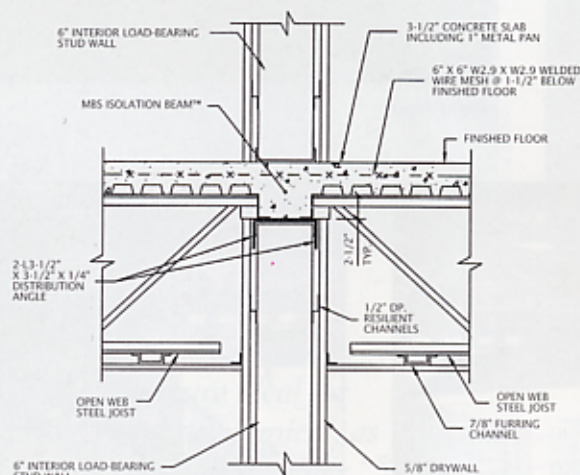
struction capability, lighter footings and foundations, and the absence of many of the related processes of conventional construction.

Inherent in this approach is flexibility that allows designers to create open

spaces with longer spans for custom suite layouts, and also facilitates design changes and interior renovations. Speed of erection offers savings to builders and consumers, who also benefit from the superior fire and seismic ratings.

Frank Castronuovo says, "A major challenge was to complete the project while removing as few trees as possible. We were working with approximately 2 metre (6-1/2 foot) access around the building. MBS trucked in prefabricated wall sections complete with door and window openings, and four self-erect cranes put everything in place with no problem."

The 3,530 m² (38,000 ft²) of roof cladding for the complex



FLOOR SYSTEM DETAIL (1-HR FIRE RATED ASSEMBLY)
ULC-G548

The MBS Isolation Beam™ floor system, together with concrete floors, provides a fire and smoke barrier between units and between units and hallways.



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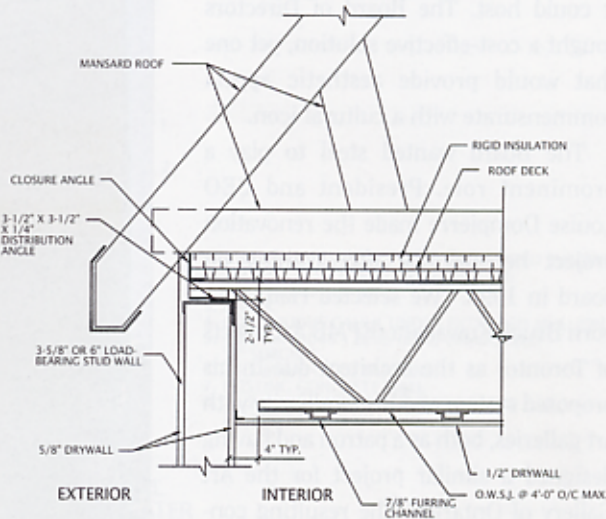
The steel floor decking is .76 mm (.0299") in suites and .91 mm (.036") Z180 (G60) galvanized in the corridors, due to difference in spans.

and interesting roof line with lots of dormers and peaks for the first two phases is .607 mm (.0239") QC8262 Black Galvalume™. The roof mansard framing is by MBS and erected by Thermal Systems KWC Ltd., of Calgary.

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*– Frank Castronuovo,
Director of Construction,
Statesman Corporation*

Phase 1 ground breaking began in November 2002 and was completed in July 2004. Phase 2 ground breaking began in November 2003, scheduled for 18-month completion. For Phase 2, the steel superstructure was framed in 18 weeks during winter conditions. Phase 3 runs from April this year to July 2006. The final phase is scheduled for completion in 2007.



EXTERIOR LOAD-BEARING WALL DETAIL AT ROOF

Design and Construction Team

Owner: Statesman Corporation.

Phone: (403) 256-4151

Architect: GMH Architects.

Phone: (780) 423-3424

Structural engineer: Siefken

Engineering. Phone: (604) 525-4122

Framing contractor: Mega Building

Systems. Phone: (604) 599-4200

Light steel framing supplier: Bailey

Metal Products. Phone: 1-800-668-2154



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The framing system comprises Z275 (G90) galvanized framing varying in this case from 1.52 mm down to .91 mm (.060" to .036") for exterior and interior load-bearing studs, with .46 mm (0.018") Z180 (G60) and AZ150 Galvalume™ infill for interior non-load-bearing walls.