

Light steel framed luxury apartments



Metsec Building Products' fast track light gauge steel framing system has been used to create luxury apartments on an exposed, sloping peninsula near Torquay.

The panelised Metframe system was specified by developer Westbury Homes and by contractors Midas Construction primarily because of its high quality performance and its light weight which minimised foundation loadings.

The external wall panels were delivered with rigid insulation board pre-fixed and they and the internal wall panels were built off a steel ringbeam and bolted together on site. The accuracy and repeatability of the precision cold rolled components and the absence of wet trades were major factors in the simple erection.

All the apartments in the four storey, 2100 sq.m building, known as The Atrium, have been designed to give an open, light and airy feel with 270 deg. sea views so the Metframe structure had to accommodate large bay windows and balconies. The large lounge areas required spans of nearly 6m. The peninsula site is exposed to strong sea breezes so the

superstructure was designed to withstand wind loadings of 0.89 kN/sq.m.

The overall performance of the Metframe system was a significant factor in the choice of build method for the luxury apartment block. The 'warm frame' construction techniques mean Metframe buildings are thermally efficient and can easily achieve or exceed the U values laid down in Part L of the 2002 Building Regulations.

In addition, the upper floors are concrete, giving a 'solid feel' to the building and reducing sound transference. At The Atrium internal walls were insulated and dry lined to achieve 61dB on party walls. Again, the Metframe system can easily achieve or exceed the dB rating requirements of Part E of the 2002 Building Regulations.

Peter Watkins, director of Metsec's framing division, said: "We have seen a significant increase in demand for the Metframe system for high quality flatted developments. It appears that speed of construction, which is critical to minimise project costs, combined with the system's performance is the reason."

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Silwood Park, Ascot,
Berkshire. SL5 7QN
United Kingdom

Tel: + 44 (0) 1344 623 345
Fax: + 44 (0) 1344 622 944