

# Enniscorthy Fire – Viking Wharf Apartments

*Fire-stop details need to be more robust at top of party wall*

by Brian Ó Murchú



On 17th of May 2005 at approximately 9.00pm, a fire broke out within the roof/attic space of a block of 14 concrete built apartments in Enniscorthy, Co. Wexford. Despite the extensive nature of the fire, the building retained its structural stability and the concrete elements acted as an effective fire compartment. However, the fire stopping (if in place?) at the top of the party wall/roof abutment, failed to contain the fire, the result being the destruction of the adjoining properties and the obvious threat to the lives of about 70 people (mostly immigrants) housed within the building. Fortunately, damage was limited to property and there was no loss of life. Had the fire broken out at night time, rather than the evening time, the result may have been more serious. Indeed, the incident is reminiscent of recent fire tragedies in Paris in which many immigrants lost their lives.

The fire caused the trussed timber roof structure to collapse. This is a typical scenario with a positive aspect – in that the collapse of the roof can vent the fire vertically, reducing the internal temperature and curtailing the horizontal spread of fire. This was shown

to be the case in Irish fire tests overseen by Dr. William Crowe (formerly of Enterprise Ireland) and Noel C. Manning (fire consultant) in 1981, 1982

and 1984, on both masonry and timber frame construction.

However, the fire regulations require that the fire be compartmentalised and



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prevented from spreading to adjoining properties and to fire escape areas – i.e. protected stair wells. In the case of the Enniscorthy fire, it is clear that the fire stopping at the top of the party wall was ineffective (if at all present) and did not prevent the spread of flame to the adjoining properties. Of greater concern is the fact that the fire was able to bypass the party walls at protected stairwells – effectively compromising the area which is specifically designed for occupants to escape and for access for fire and rescue personnel.

Since only limited inspection was possible, it is inappropriate to comment

as to whether the spread of flame across the party wall was due to the absence of fire stopping or to poor workmanship. Whichever is the case, it is highly questionable as to whether such buildings could have a legally held fire safety certificate. This raises the question as to the legal position of surveyors acting on behalf of mortgage lenders and purchasers inferring compliance where it is quite obvious that no compliance exists. Such persons are potentially exposed to litigation.

Based on our own observations and discussions with fire specialists, it would appear that a more fail-safe method of

detailing is required at the top of party walls. The failure of such party wall abutments are a known risk and this needs to be addressed. Fortunately, effective and economical engineered design solutions already exist and these are well known to many builders, but there is a need for this more technological approach to be supported at official level. The Irish Concrete Federation would certainly welcome and support such an approach.

In the case of the Enniscorthy fire, the spread of flame across the top of the party wall compromised the fire compartmentation. The effect of this was that firemen were required to hose the entire roof area, flooding all apartments right down to ground level. The result was that all the apartments had to be evacuated and refurbished at significant cost to the insurers. Had the details at the top of the party wall been effective, the fire would have been contained in a small area of the building and damage to property and inconvenience to occupants may have been far less. Because it was concrete built, the apartment block was re-buildable. Had the fire taken place in a lightweight frame construction, water damage alone would have required that the whole inner structure be removed and complete demolition would have been the most likely outcome, at substantially greater cost to the insurers.

**Fire Bypasses Party Wall**



Viking Wharf, Enniscorthy