The Revelation of Laminated Veneer Lumber at St Joseph's

St Joseph's is a popular and progressive parish in Mt Victoria, on the edge of Wellington City. The parish's project for a new church began not with a brief to an architect, but with a 'Dream Statement'. Utilising Hyspan Structural LVL by futurebuild as a major structural element in this innovative church building, the architects have told the story of a parish open to new ideas and of a saint who was also a carpenter.

The site of the new St Joseph's church is on the foundations of the old. It is a significant location, being on the edge of urban Wellington, a city gateway - surrounded by a mix of commercial, sporting and residential buildings. It is a high profile site.

The project began with a dedicated rebuilding committee from St Joseph's parish. According to Marc Woodbury, one of the architectural team at Studio of Pacific Architecture (Studio of Pacific), this committee was itself an inspirational group and worked closely with the architects on the project. Woodbury explains how it all began:

"One of the principals of Studio of Pacific met with the Chair of the committee on-site and looked at the existing church. Studio of Pacific were then interviewed and eventually secured the job. There were two briefs, and the briefing itself was an indication of the parish's commitment to the project, their sense of foresight and exploration - all the things that made the project wonderful. The first brief was a functional brief for a nave space for 300 people, a chapel for 30 - 40 people, a baptistry and associated facility spaces. Second, there was the 'Dream Statement' - who the Church were, where they were going and who they wanted to be."

The themes behind this 'Dream Statement' emerged, being that the new church should be inclusive, simple and modest, it should express something about a spiritual journey and about St Joseph the carpenter, and finally it should be a sanctuary for the people of Wellington and Aotearoa.

One concern was that traditionally churches can be 'excluding' places. Studio of Pacific aimed to create more of a place than a single built form. While the traditional cruciform church plan was retained, instead of the solid walls this was treated as a transparent entry and lobby, linking all the spaces. Around this was wrapped the four functional spaces as briefed, each expressed as a quarter circle. The idea was to evolve the cross so that these quadrants intertwined with it to express an abstract koru, the Maori wave-like spiral shape - expressing through the transition from space to space the spiritual growth of the church dream.

In terms of construction, there were several unusual aspects. The exterior is pre-cast concrete, forming a protective shell between the site and the busy road outside. This shields the church from noise and gives it a toughness suited to the environment. To soften this somewhat, the concrete is imprinted with an abstract fish pattern - the fish being a Christian symbol.

Due to cost constraints and the desire for a strong carpentry theme, futurebuild LVL was the perfect choice for the major structural elements of the church. Much of the interior is simple paint finished LVL or fair-faced concrete. Rather than cover the LVL on the interior it has been left exposed, revealing the detail of the timber structure and of the beams.

Says Woodbury: "We used LVL a few years ago and thought it was a great material. We liked the aesthetic of the material too. The laminations that make up the 90 mm members are quite dramatic. We wanted to express it. Often structure is expressed in a church. Traditionally in New Zealand, Colonial churches are made from native timbers and that timber is exposed. So we picked up on this New Zealand church vernacular and reinterpreted it with a modern material. It also suited the St Joseph's story. It was a very appropriate use of the product."

The structural engineering was completed by the Wellington office of Romulus Consulting. The roof structure consisted of two fabricated Hyspan box beams 1.2 metres deep spanning 22 metres as the primary support with solid Hyspan as secondary beams. It was possible to space these beams at 2.4 metres as the roofing membrane utilised 36 mm thick specially fabricated LVL panels. The walls of the chapel, a dramatic 12 metres high were framed using full height Hyspan columns. The space is painted a deep crimson, giving intimacy to the space that is intended for more reflective prayer.

The LVL was used structurally, but was not expressed in the gathering space and the feel is more prosaic for functional use, with glass walls and views out over the Basin Reserve, the former museum and Brooklyn Hill beyond.

From the use of colour, to the infant's glass font to the coloured pohutukawa glass in the gathering space window, the spaces in this church are innovative and welcoming at the same time. "The work was collaborative," Woodbury says, emphasising the role played by the parish committee, a core team of six and the team at Studio of Pacific.

The overall result is a progressive feel and a bright and hopeful new church.

There is little doubt that St Joseph himself would have found the innovative and economical effects of LVL made possible by CHH futurebuild to be quite a revelation.

(Source: Studio of Pacific Architecture)

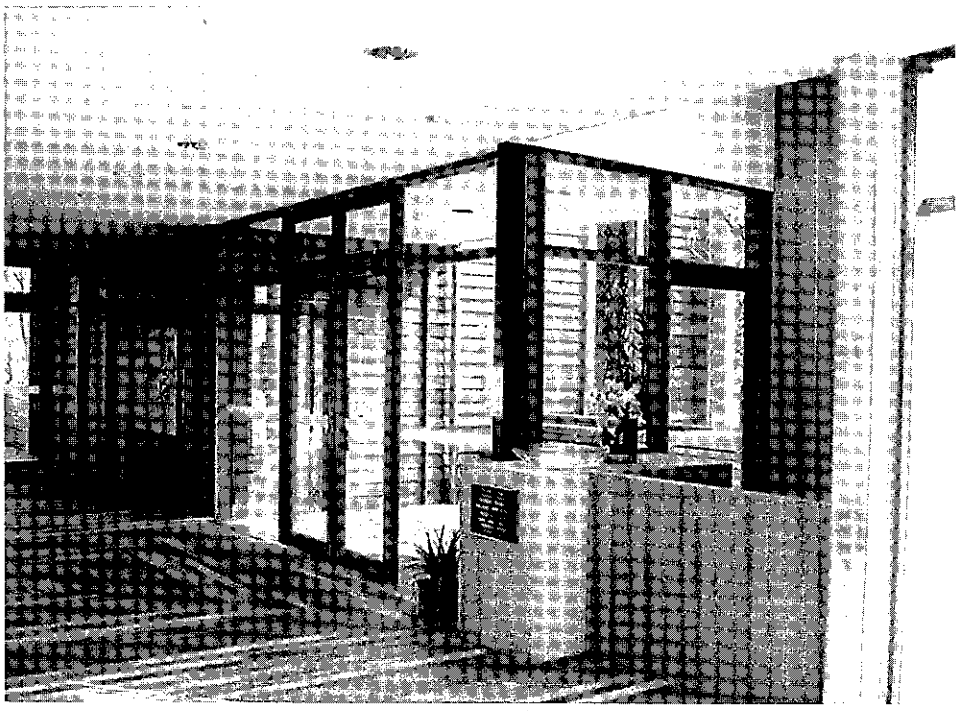
Photo 1 – Timber features in the entranceway

(Source: Studio of Pacific Architecture)

Photo 2 – Internal timber features strongly below the timber beams

(Source: Studio of Pacific Architecture)

Photo 3 - Note the use of timber feature panels on internal walls



(Source: Studio of Pacific Architecture)

Photo 4 - Internal entranceway with colourful timber flooring