

## Seismic Review Committee AGM Report, 2019

The committee has been making steady progress towards strengthening our church. Around the time of last year's AGM we had a flurry of activity in early March, when our Consulting engineers, NZ Consulting Engineers Ltd. (NZCEL), began work on our project and, simultaneously, Hutt City Council (HCC) became aware of our earthquake strength situation. This year we confidently expect a similar flurry of activity, hopefully with more positive outcomes, as we are now poised to apply to HCC for a Building Consent.

NZCEL developed a computer model of the church and subjected it to a range of seismic loadings. From their initial findings it appeared that with minimal work the building could be strengthened to 67% of the National Building Standard (NBS). But at about the same time HCC were given our original engineers' analysis and based on this they declared the church earthquake prone. In response to this vestry decided to stop using the church complex, so since Easter 2018 all services and other activities normally held in the church complex have been taking place in the church Hall.

Following some on-site engineering investigations in May the existing roof bracing was found to be deficient but when NZCEL delivered their Detailed Seismic Assessment (DSA) in July they considered the building was not earthquake prone and is unlikely to collapse in a moderate seismic event. They rated the building as in the range 30% to 40% of NBS, with the critical element being the roof cross-bracing. We took the DSA to HCC and asked them to withdraw their earthquake prone building notice. They declined as the earlier analysis held by them showed lower figures.

We then requested HCC to give the DSA to their consultant engineers to evaluate before our engineers moved on to the design phase. They agreed, but advised us that they'd still require a peer review of the final design and analysis at Building Consent stage and the new analysis would be assessed against the earlier Sawrey Consulting Engineers analysis which they hold. This essentially meant two HCC peer reviews both chargeable back to St Paul's. After discussion with NZCEL we withdrew our request and NZCEL undertook to carry on with the detailed design of their recommendation of plywood bracing for the church roof. There will now be a single peer review when we apply for a Building Consent.

The design process went well but needed some fine tuning, and we received the final building consent version of the design, incorporating various requested amendments, just before Christmas. In the meantime we had been working on other issues, including acoustic testing on the existing church building.

In mid-January we visited HCC with our documentation and a list of queries, to assess our readiness to apply for a building consent. They advised that they required specialist reports covering fire standards, fire egress and disabled access as the church is a public building. We engaged a Fire Engineer to assess and report on these.

In parallel we have been preparing contract documentation and technical specifications ready for the tender process and submission to HCC for permits.

At the time of writing we have received the Fire Report and are expecting the Accessibility Report. The engineering documentation will then need some minor updates to incorporate the various report requirements and we'll then be ready to deliver our Building Consent application to HCC. We expect the peer review at that time to require some negotiations between our designer and the peer reviewer.

Once we have building approval we will prepare to go to tender again, and present indications are that the current NZCEL scheme will be fundable by the parish.

We expect to update this report and answer any questions at the AGM.

Colin, Murray and Jon

20 February 2019