

## **Summary of Engineering Report on Holy Trinity Church**

### **Background**

Over the past two years, KGS Group has done a comprehensive engineering study of the 1884 church building. The final report is being produced and will be made available to those who wish to see it when it is ready. However, with our Annual General Meeting approaching, it seemed appropriate to produce an unofficial summary for the congregation as this year there are some important decisions to consider regarding the future of our building.

### **State of the Building**

#### *Critical*

The 1884 church was constructed with a foundation of the sort most of us would not recognize. There is a rubble stone retaining wall to keep the earth from falling under the building. The perimeter of the structure is supported by strip footings constructed of concrete and wood and the interior by a series of footings and piers believed to have been upgraded in the 1980s. The concrete footings behind the altar were underpinned with concrete piles in the 1960s at the time Trinity Hall was constructed. Today, a structure like the church would have a concrete foundation sitting on piles drilled or driven deep into the earth. This lack of stable foundation means that the building moves from time to time. Over the years, the southeast corner of the church (including the south wall of the chancel, Fortin vestry, as well as the south and east wall of the south transept) has begun to show significant damage due to this movement.

- Substantial damage to the exterior walls of the Fortin vestry
- Damage to the south wall of the south transept
- Scaffolding has been erected in the chancel to protect the organist and organ console from falling plaster
- Level of the floor in the chancel, Fortin vestry, and south transept have noticeably shifted.

If nothing is done, this damage will continue to worsen and, eventually, the building will become unserviceable and unsafe for use.

#### *Non-critical, but urgent*

The engineering report offers a number of other observations based on the current state of the building and based on previous, similar reports at various points from now back to the 1980s.

While these are not critical for attention in the way that the damage in the Fortin vestry is, it is worth considering them in any plans for repair. In particular, the nave floor was recommended for replacement in the 1980s and has continued to deteriorate since then; some of our electrical system is very old and will require replacing in the near future.

## **Remedy**

The remedy for the shifting building and associated damage is the creation of a new foundation under the church. Piles would be drilled and a concrete foundation poured under the church. This will stabilize the building by preventing further movement and therefore further damage. This will not however repair the current damage. Further work will be needed to repair and/or renovate the damage to the structure and interior of the church building.

The foundation could be constructed to include a basement level under the 1884 church building, if the congregation desired.

## **Cost**

The estimated cost for the construction of a modern foundation under the 1884 church building is \$3,500,000 including engineering and various soft costs. This estimate reflects only the stabilization of the building and does not include the cost of repairing woodwork, plaster, and other damage to the walls, roof, and interior of the church.

## **Summary**

If this congregation wishes to maintain its historic building, major work is required. There are other features of the building that, though not currently in critical distress, will require updating and replacement in the near future.

We must decide whether we wish to repair the 1884 church building and, if so, investigate options for financing those repairs. This is also an opportunity to consider our historic space, how it has been used in the past, and how it might be used going forward for the good of our congregation, the good of our parish, and how we might continue for another 150 years to offer ourselves as sanctuary for the city.