Damage to a heritage building from adjacent excavation 1998 to 2008

Graham Shepherd

61 Simpson Street
East Melbourne Victoria 3002


Simpson Street
59
61
N
Hotham Street
KEEP CLEAR
99

Minor excavation

- 1998 renovation at 59 Simpson Street (first of four terraces of Elizabeth Terrace)
- 59 is south and upstream of 61
- Involved minor excavation adjacent to common terrace wall
- Excavation filled with water
- (Established by investigation to be ground water)
- Water wicked up the wall damaging plaster and paint over visible length of about 5 metres





1998 Repair

- This was very difficult to negotiate because the building inspector worked for the developer and acted as a mediator not a problem solver
- The solution proved to be inadequate
- Small sump and drain under 59 Simpson Street
- Removal of plaster at 61 Simpson Street
- Chemical damp-course
- Replaster and paint
- Areas hidden behind built-in furniture did not get fixed

2008

- 2 x 12 metre long cracks suddenly appeared on both sides of the common wall
- The foundation had dropped about 1 cm
- Despite the drought there was still substantial ground-water flowing from the south into 59
- But the sump installed in 1998 caused differential drying of the clay causing the foundation to collapse
- No insurance or warranty cover could be obtained















Costs

- Engineering advice was that no short cuts would work
- $100,000+ without doing a renovation
- Incremental cost excluding all engineering, demolition and renovation, ie, just the physical underpinning: $32,000
- Substantial personal costs in having to relocate for the duration

Conclusion

- Heritage buildings rely for their foundations on relative stability of the clay moisture
- This was recognised in earlier planning rules that 25% of the land must be permeable to moisture
- Massively out-of-scale constructions such as 99 Hotham threaten heritage
- This is a heritage preservation issue
- Heritage buildings and the heritage character of East Melbourne could be destroyed