





Wall had rotated at the damp proof course.



Wall cracking repaired using a proprietary product (Helifix)





Expansion Joints in Old Buildings



The above wall and photos are from a bus depot workshop in the Sydney suburb of Burwood. It appeared the wall had rotated (at the damp proof course) and had some cracking. The wall was over 60 metres in length and was over 8 metres in height. It was assessed by a structural engineer, and it was noted the wall did not have any expansion joints (which was normal considering the era it was constructed). And due to this, during normal expansion and contraction of bricks and mortar due to temperature variances, the forces exerted where too strong especially due to sheer length and height of the wall. It was recommended expansion joints be introduced at intervals. This resulted in cutting the wall vertically and placing the correct expansion material.

In addition, all cracking had to be repaired. This was completed using a proprietary product (Helifix). This was completed by cutting horizontally through the mortar every three brick courses and installing a stain steel tie bar and placing the proprietary mortar product back in.

Further Reading and References

https://www.helifix.com.au/

http://sydneystructuralengineers.com.au/

http://bbjconstructiongroup.com.au/