

11 Fitzjohns Avenue Monitoring to Prevent Damage to Existing Structure and Adjoining Neighbours

Vibration

Trial holes on site have established there are no existing reinforced concrete structures requiring removal and therefore vibration is anticipated to be minimal.

It is imperative that vibrations greater than 2mm/s PPV are avoided to prevent disturbance to adjoining owns. It is on note that masonry structures can accommodate vibrations up to 15mm/s however this would be intolerable for adjoining owners. During key activities, such as excavation and installing of any temporary trench sheeting that vibration is monitored at the start of each of these high-risk activities at a location >10m from the adjoining owners to assess likely vibration. This will be done using a mobile vibration monitor by the contractors engineering surveyor trained in the use of the vibration monitor.

If during monitoring, vibration levels of greater than 2mm/s are encountered, the activity will be stopped immediately and the methodology will be reviewed. An alternative method will be explored to see if this will reduce vibration levels. Only when the methodology is found to be less than 2mm/s PPV will the activity be allowed to proceed closer than 10m to the adjoining owners.

From experience vibration is not likely to exceed 2mm/s PPV and we therefore consider vibration exceedance 2mm/s to be extremely unlikely. Whilst excavating within 5m of the adjoining owners, a digital vibration monitor will be utilised to monitor throughout excavation. The following trigger levels will be utilised to establish controls:

Action Colour	Maximum Vibration PPV	Action
Green	0-1mm/s	Continue works with monitoring in place
Amber	1 - 2mm/s	Continue works with caution
Red	>2mm/s	Cease works and look at alternative measures

The baseline readings and final readings will be recorded in this document as below:

Point	Baseline Coordinate Readings Prior to Excavation	Final Readings on Completion of Ground Floor Slab
9 Fitzjohns Avenue :		
A1X		
A1Y		
A1Z		
A2X		
A2Y		
A2Z		
A3X		
A3Y		
A3Z		
11 Fitzjohns Avenue		
B1X		
B1Y		
B1Z		
B2X		
B2Y		
B2Z		
B3X		
B3Y		
B3Z		
C1X		
C1Y		
C1Z		
C2X		
C2Y		
C2Z		
D1X		
D1Y		
D1Z		
D2X		
D2Y		
D2Z		
D3X		
D3Y		
D3Z		

13 Fitzjohns Avenue		
E1X		
E1Y		
E1Z		
E2X		
E2Y		
E2Z		
E3X		
E3Y		
E3Z		