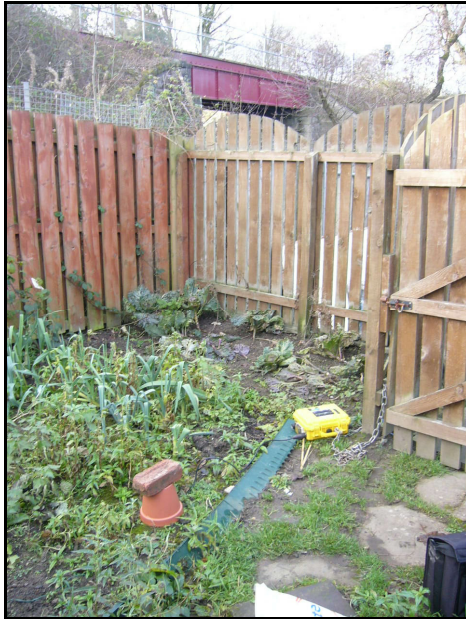
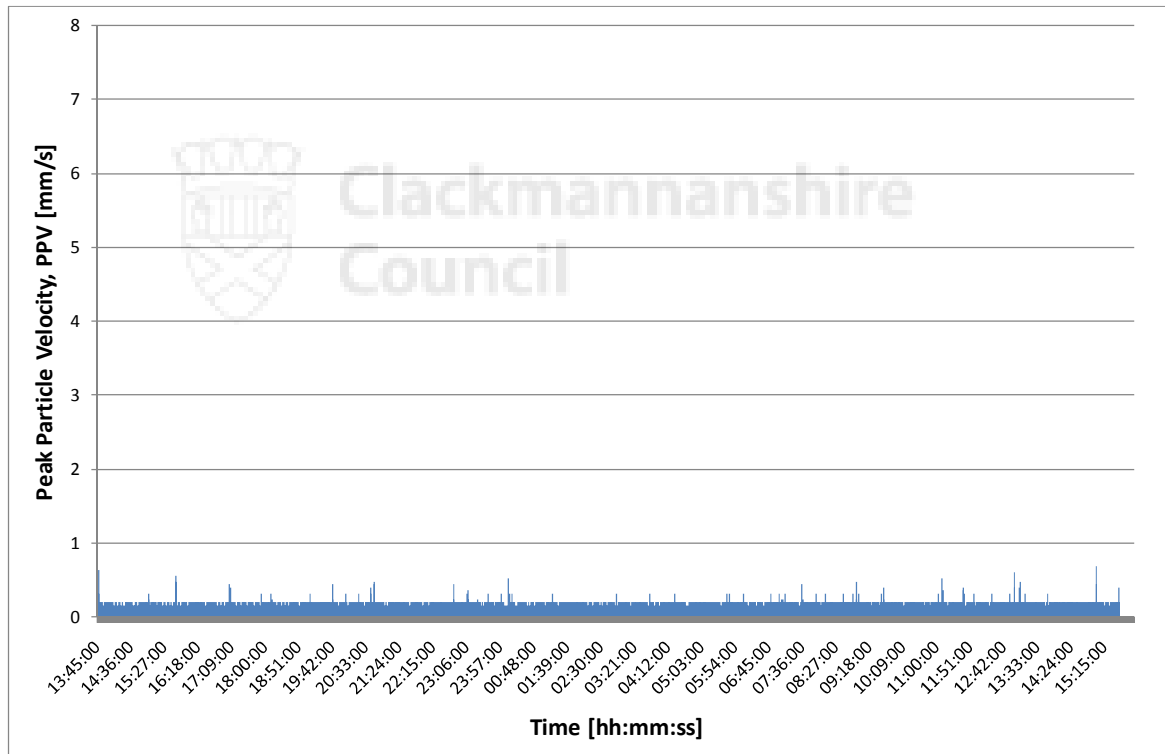


Figure 5.9: Photograph of Vibration Monitoring Equipment at 4 Mill Road, Clackmannan



- 5.21 The weather conditions during the measurement period are believed to have been generally dry with very light winds. During the night-time period it is possible that there was a light ground frost.
- 5.22 Figure 5.10 shows the time history of the measured PPVs. The highest peaks are likely to correspond with freight train pass-bys. Lower level peaks are likely to have been caused by sporadic traffic on Mill Road.

Figure 5.10: Time History of 30-Second PPVs Measured at 4 Mill Road, Clackmannan

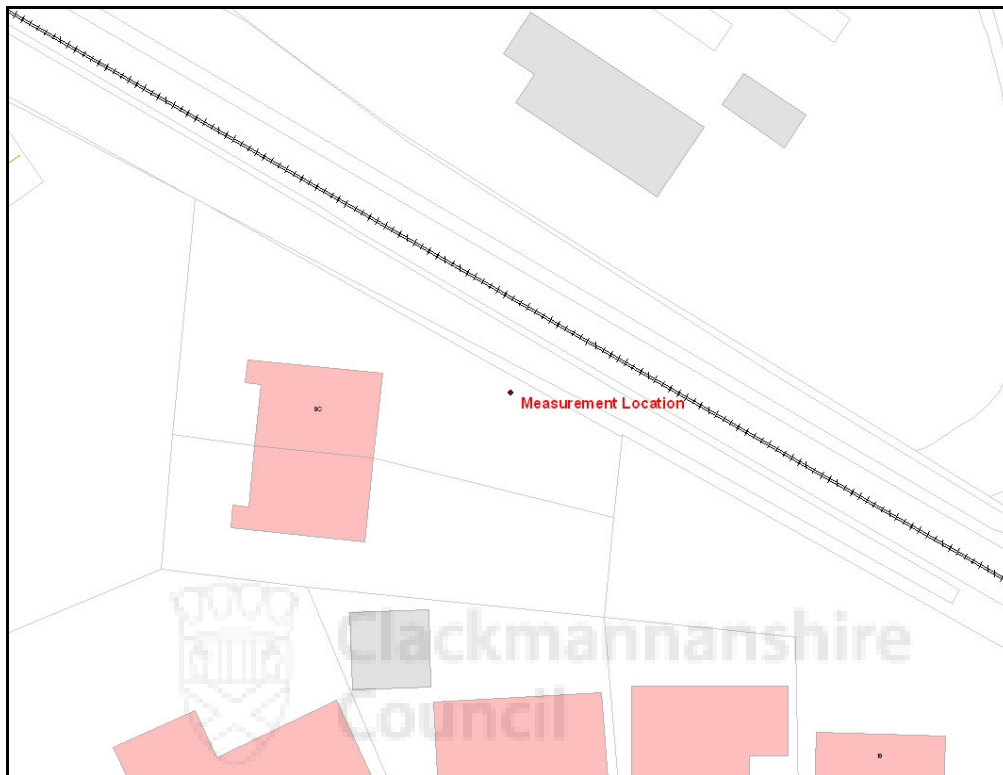


- 5.23 The highest measured PPV was 0.683 mm/s. This level occurred between 15:01:00 and 15:01:30 on Thursday 25 November. Levels of vibration are well below criteria for structural damage.

8D Hetherington Drive, Clackmannan, Clackmannanshire

- 5.24 Continuously logged measurements were made from 12:35 on 24 November 2010 until 15:45 on 25 November 2010. For practical reasons, the
- 5.25 Hetherington Drive is a cul-de-sac located off Alloa Road and is therefore unlikely to be heavily trafficked. The SAK line is approximately 0.5-1 m below the ground height at the dwelling. The railway is believed to be the only source of significant vibration within the locale. Figure 5.11 illustrates the measurement location in relation to the surrounding area of the property.

Figure 5.11: Plan of Measurement Location at 8D Hetherington Drive, Clackmannan



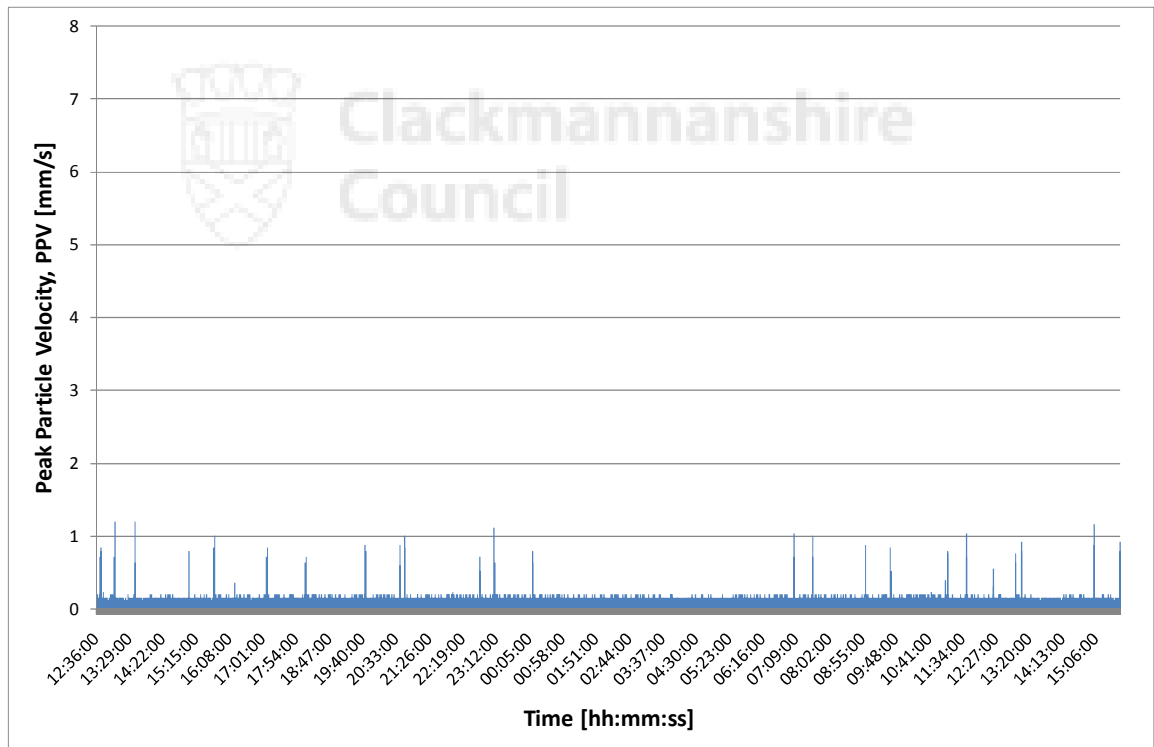
- 5.26 The measurement transducer was located approximately 7 m to the south of the nearside of the SAK railway track and approximately 11 m to the east of the facade of 8D Hetherington Drive. This location, somewhat further from the perimeter of the dwelling than desirable, was chosen for practical reasons. Figure 5.12 illustrates.

Figure 5.12: Photograph of Vibration Monitoring Equipment at 8D Hetherington Drive, Clackmannan



- 5.27 The weather conditions during the measurement period are believed to have been generally dry with very light winds. During the night-time period it is possible that there was a light ground frost.
- 5.28 Figure 5.13 shows the time history of the measured PPVs. All the significant events are likely to represent train pass-bys.

Figure 5.13: Time History of 30 second PPVs Measured at 8D Hetherington Road, Clackmannan



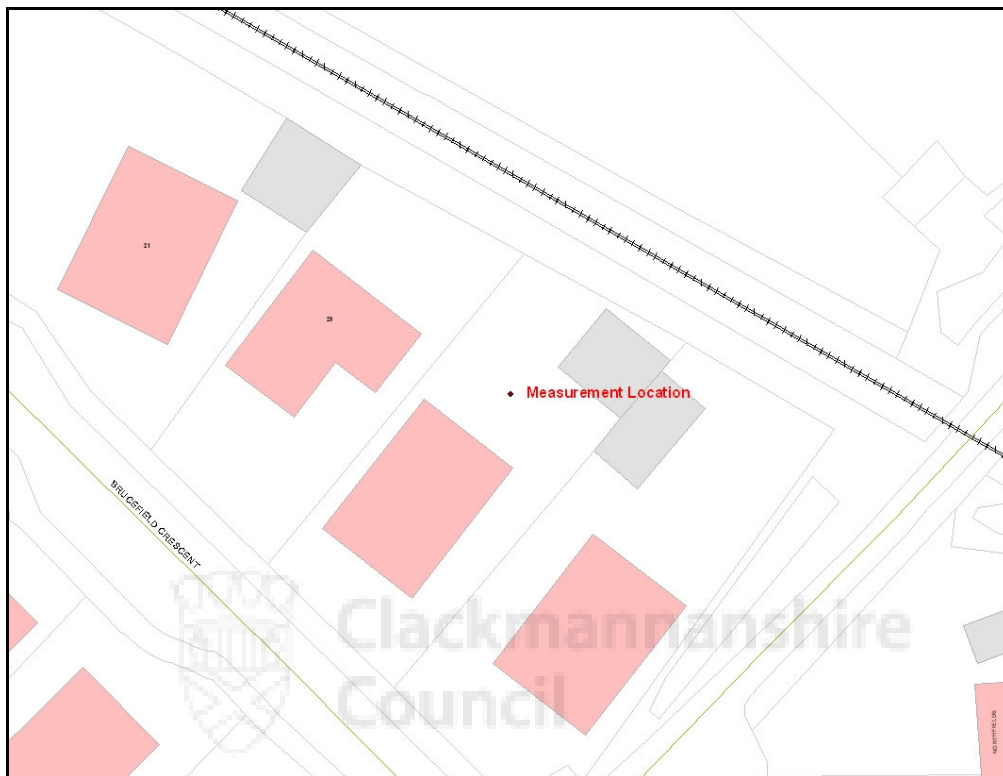
5.29 The highest measured PPV was 1.205 mm/s. This level occurred between 13:04:00 and 13:04:30 on Wednesday 24 November. Vibration is unlikely to give rise to structural damage of any kind.

25 Brucefield Crescent, Clackmannan, Clackmannanshire

5.30 Continuously logged measurements were made from 12:35 on 23 November 2010 until 12:12 on 24 November 2010.

5.31 Brucefield Crescent is the only road within the vicinity of the measurement location and is likely only to be used by vehicles accessing properties on the road itself. The SAK railway line, which is at a similar height to the measurement location, is likely to be the only significant source of vibration in the area. Figure 5.14 shows the measurement location in relation to the surrounding area of the property.

Figure 5.14: Plan of Measurement Location at 25 Brucefield Crescent, Clackmannan



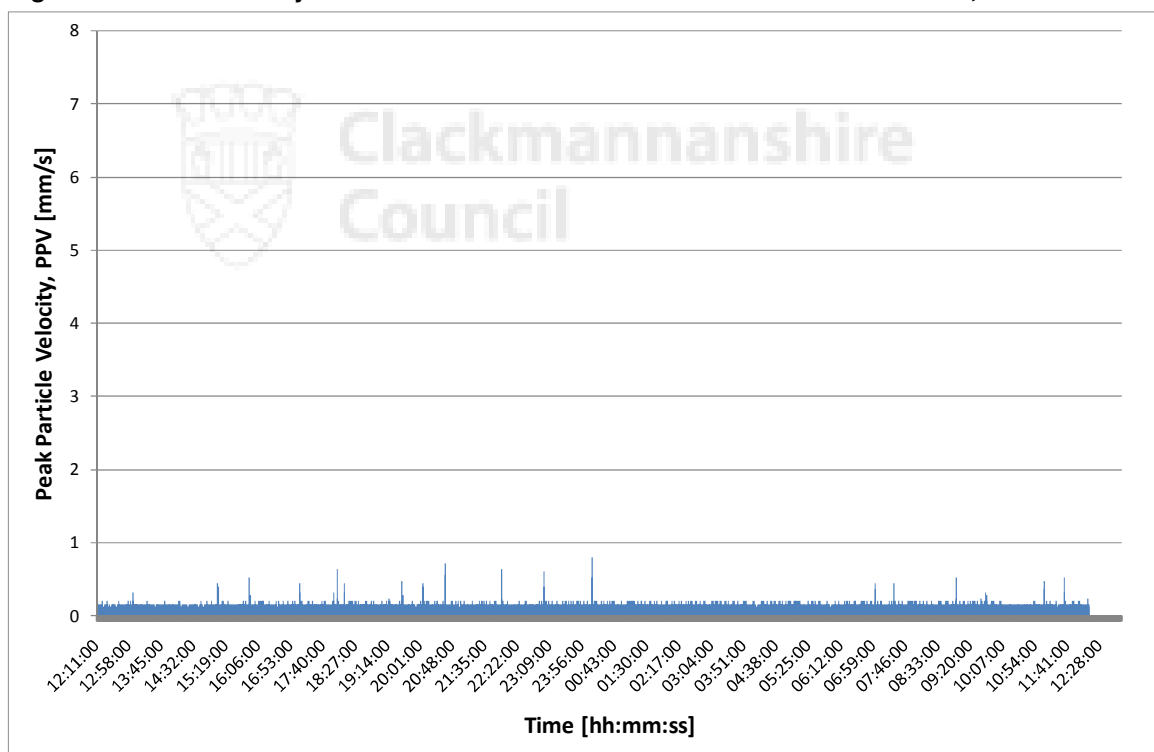
5.32 The vibration transducer was located approximately 16 m to the south of the nearside of the railway track and approximately 5 m to the north of the façade of 25 Brucefield Crescent. See Figure 5.15.

Figure 5.15: Photograph of Vibration Monitoring Equipment at 25 Brucefield Crescent, Clackmannan



- 5.33 The weather conditions during the measurement period are believed to have been generally dry with very light winds. During the night-time period it is possible that there was a light ground frost. These conditions are unlikely to have affected the measurement results.
- 5.34 Figure 5.16 shows the time history of the measured PPVs. All the peaks of significance are expected to correspond with train pass-bys. They are similar and relatively widely spaced over time, consistent with freight movements.

Figure 5.16: Time History of 30 second PPVs Measured at 25 Brucefield Crescent, Clackmannan



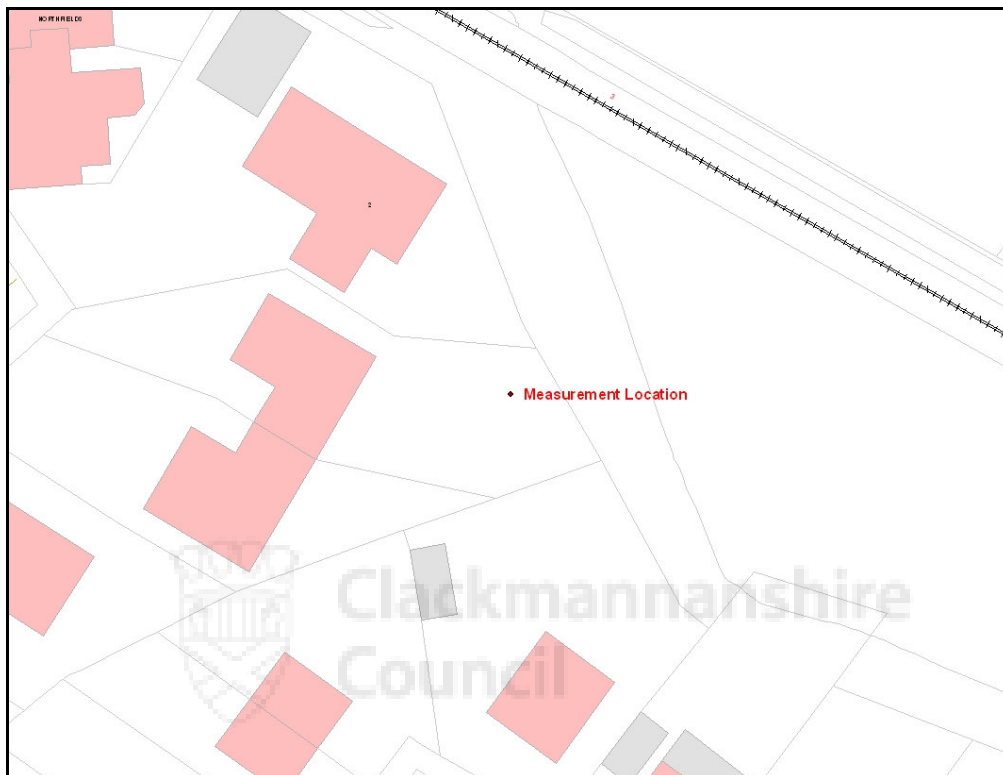
5.35 The highest measured PPV was 0.803 mm/s, which is well below criteria. The level occurred between 00:10:00 and 00:10:30 on Wednesday 24th November. It is highly unlikely that structural damage to the dwelling could result from the measured values.

3 Northfield Gardens, Clackmannan, Clackmannanshire

5.36 Continuously logged measurements were made from 11:48 on 22 November 2010 until 12:17 on 23 November 2010

5.37 Northfield Gardens is a cul-de-sac located off Brucefield Crescent. It can therefore be expected to carry very low volumes of traffic. The SAK railway line, which is elevated above the dwelling's garden by around 1 m, is likely to be the only local source of environmental vibration. Figure 5.17 shows a plan of the measurement location in relation to the site.

Figure 5.17: Plan of Measurement Location at 3 Northfield Gardens, Clackmannan



5.38 The vibration transducer was located approximately 25 m to the south of the nearside of the railway track and approximately 12 m to the east of the facade of 3 Northfield Gardens. Figure 5.18 illustrates.