Kendal Flood Risk Management Scheme

Mitigation Measures

Mitigation measures are the steps taken to reduce the impact of construction works on people, wildlife, and the surrounding environment.

Noise, vibration and dust monitoring involves using specialist equipment to measure sound and ground movement during construction works. This helps ensure activities remain within agreed limits, protects nearby properties, and enables the project team to minimise disturbance to residents and businesses wherever possible.

Noise Monitoring

Noise monitoring measures sound levels in decibels (dB) to assess the impact of works on nearby residents, businesses, wildlife, or sensitive locations.



Noise and Vibration equipment

Typical measurements include:

- **LAeq** – the average noise level over a set period.
- **LAmax** – the highest noise level recorded.
- **Background noise levels** – existing ambient noise before works begin.
- **Peak noise events** – sudden loud noises from specific activities.

The monitoring helps to:

- Ensure compliance with planning conditions and environmental regulations.
- Identify when noise is exceeding agreed limits.
- Adjust working methods to reduce disruption.
- Provide evidence of readings.

Vibration Monitoring

Vibration monitoring measures movement caused by construction activities, particularly those involving heavy equipment, piling, compaction, excavation, or demolition.

Measurements are normally taken in:

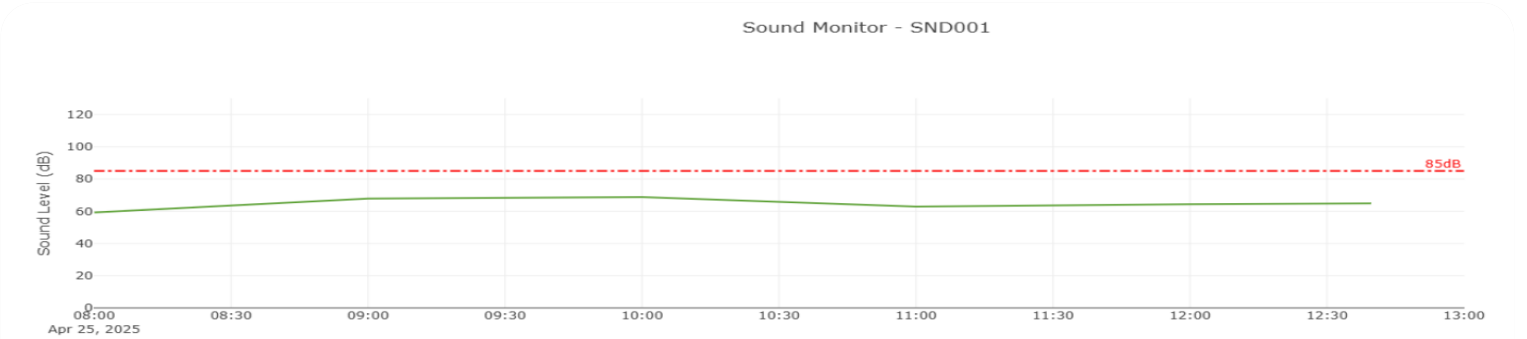
- **Millimetres per second (mm/s)** using Peak Particle Velocity (PPV).
- Buildings, structures, bridges, utilities, and nearby properties can be monitored.

The monitoring helps to:

- Protect nearby buildings from damage.
- Confirm vibration remains below accepted thresholds.
- Demonstrate compliance with industry standards.
- Provide reassurance to residents and stakeholders.

How Monitoring Is Carried Out

- Monitoring equipment is installed at agreed locations close to the works.
- Data can be recorded continuously or during specific activities.
- Alerts can be set to notify the project team if pre-defined limits are approached or exceeded.
- Results are reviewed regularly and reported to stakeholders where required.



Sample reading from work in Kendal showing readings below recommended levels

European Union
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VBA

Kendal Flood Risk Management Scheme

Environment Agency

Dust Monitoring

Dust monitoring is the process of measuring and assessing airborne dust generated by activities such as excavation, demolition, earthworks, vehicle movements, and material handling during construction projects. The aim is to protect the health and wellbeing of nearby residents, businesses, workers, and the environment by ensuring dust levels remain within acceptable limits.

Dust monitoring can measure:

- **Dust deposition** – how much dust settles on surfaces over time.
- **Particulate matter (PM10 and PM2.5)** – very small airborne particles that can affect air quality and health.
- **Visible dust emissions** – observations of dust leaving the worksite.
- **Weather conditions** – wind speed and direction, which can influence dust dispersion.

How Monitoring Is Carried Out

- Dust monitors are installed at agreed locations
- Equipment continuously records airborne particle levels.
- Results can be viewed in real time.
- Alert levels can be set to notify the project team if dust concentrations approach predefined thresholds.
- Site inspections are undertaken to identify and control potential dust sources.

Why Dust Monitoring Is Important

- Protect public health and local air quality.
- Minimise impact to nearby homes, businesses, and public spaces.
- Demonstrate compliance with environmental regulations and planning requirements.
- Identify when additional mitigation measures are needed.
- Provide evidence when responding to community enquiries or complaints.

If elevated dust levels are identified, measures may include:

- Damping down working areas with water.
- Covering stockpiles and haul routes.
- Wheel washing of vehicles leaving site.
- Reducing vehicle speeds.
- Using enclosed cutting or crushing equipment where possible.
- Adjusting work activities during adverse weather conditions.



Dust monitor to be situated on Aynam Road

Kendal Flood Risk Management Scheme

Echo barriers (also called **acoustic barriers**, **noise barriers**, or **sound reduction fencing**) are temporary panels attached to the site fences to reduce the amount of noise leaving the site.

The barriers are made from sound-absorbing materials that:

- **Absorb noise** from construction activities such as excavators, piling, generators, pumps and cutting equipment.
- **Reduce sound reflection (echo)** that can occur when noise bounces off hard surfaces.
- **Block direct transmission** of noise to nearby homes, businesses, schools and public spaces.

What they look like

They are typically:

- Attached to Heras fencing or hoarding.
- Made from heavy-duty acoustic blankets, foam-filled panels, or composite sound-absorbing materials.
- Usually dark green, grey or blue in colour.
- Weather-resistant and designed for outdoor use.

Benefits on a construction site

- Reduces disturbance to residents and businesses.
- Helps comply with planning conditions and environmental requirements.
- Improves community relations by minimising construction impacts.
- Can reduce noise levels by several decibels, depending on the barrier height, length and proximity to the noise source.



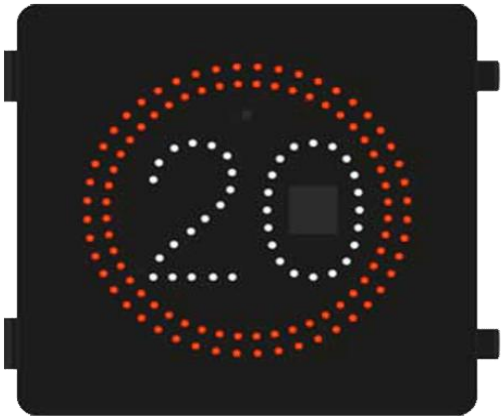
Echo barriers to be used along Aynam Road

These barriers will be removed in the bad weather and high winds

Kendal Flood Risk Management Scheme

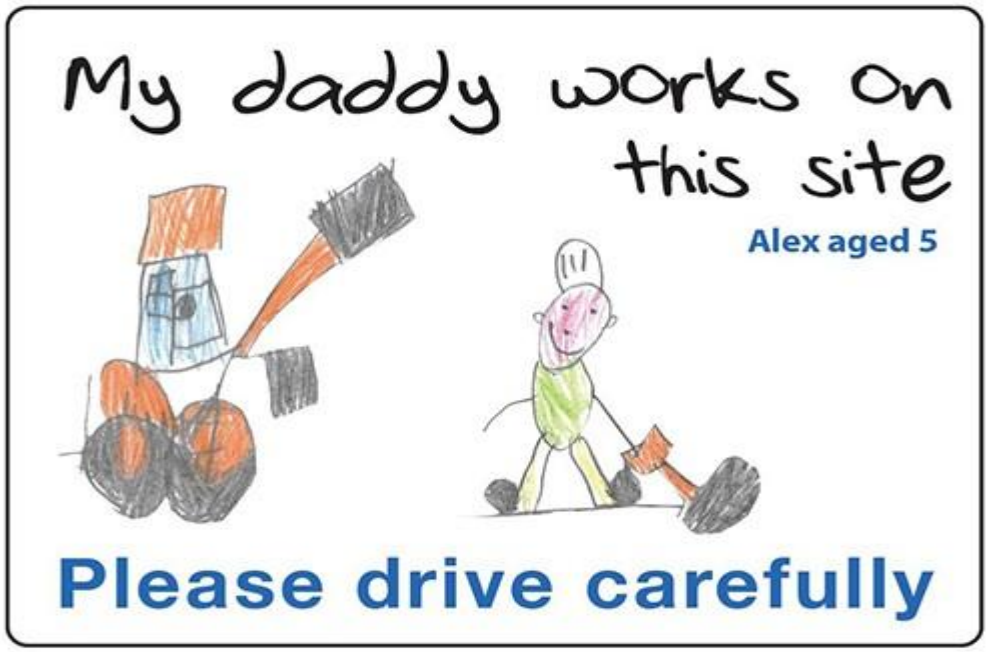
Environment Agency





Please slow down and respect the temporary 20mph speed limit on Aynam Road.

The temporary 20mph speed limit along Aynam Road has been introduced to improve safety for both pedestrians and the workforce carrying out works in the area. Reducing vehicle speeds provides drivers with more time to react to changing conditions, helps protect people accessing nearby businesses and facilities, and creates a safer working environment for construction personnel operating close to live traffic. The lower speed limit also supports safer movement around site access points, crossing locations, and shared pedestrian routes, helping to minimise the risk of incidents while works are underway.



Download the Volker engage app using the QR code shown or feel free to visit us at our Flood Scheme Information Hub located on Beezon Road (adjacent to Lidl), Kendal, LA9 6BW. Open every Tuesday and Thursday 10am to 4.30pm.

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