

Locating an Air Quality Monitoring Sensor.

When locating an Air Quality Monitoring Sensor, it is important to consider:

1. What we are monitoring
2. Why we are monitoring

For example: to monitor the impact of local traffic and idling on schools you will need to ensure that:

1. In general, the sensor shall be between 1.5m (the breathing zone) and 4m above the ground. For security reasons, the inlet should be greater than 2m above ground. The site should be in as open a setting as possible in relation to surrounding buildings. Immediately above the site should be open to the sky, with no overhanging trees, structures or buildings. Where structures such as lighting columns are not an option then it is possible in some circumstances to install the sensor on the wall of the school or other suitable building.
2. Areas of higher than usual turbulence should also be avoided. For this reason, the sensor should not be located on the corner of a building.
3. Care should be taken to avoid any very localised sources, sinks of NO₂, or disturbances to the airflow. Avoid placing sensors in any form of recess.
4. The sensor shall not be positioned in the immediate vicinity of sources in order to avoid the direct intake of emissions unmixed with ambient air. Items to look out for include
 - a. Heater flues (particularly low-level balanced flues);
 - b. Air conditioning outlets;
 - c. Extractor vents; or
 - d. Underground ventilation shafts.
5. The dominant wind direction in Buckinghamshire is South Westerly, you may want to consider locating the sensor upwind of the main pollutant source where this is possible.

The following example illustrate what to look for when installing your sensor.

