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Air Quality Assessment Report

PROPOSED CONVERSION OF EXISTING BUILDING FIRST FLOOR AND PART GROUND FLOOR TO CREATE 9NO FLATS, 7NO ONE BEDROOM FLATS & 2NO TWO BEDROOM FLATS INCLUDING OPENING UP EXISTING EXTERNAL OPENINGS AND THE CREATION OF NEW WINDOW AND DOOR OPENINGS ON THE GROUND AND FIRST FLOOR & RETENTION OF EXISTING RETAIL USE ON THE GROUND FLOOR.

Air Quality Assessment for the Refurbishment of 121 – 131 Bell Lane, Bury.

1. Introduction

This air quality assessment has been prepared to evaluate the potential impacts of the refurbishment of 121 – 131 Bell Lane, Bury. A prominent existing building located in Bury. The refurbishment project involves moderate construction activities, albeit mainly inside the building but caution has been applied to mitigate measures that may affect local air quality. The purpose of this assessment is to identify potential air quality issues, propose mitigation measures, and ensure compliance with relevant air quality standards and regulations.

2. Site Description

The refurbishment site is situated at 121 – 131 Bell Lane, Bury. The building is located in a mixed-use area, with residential, commercial, and recreational facilities nearby. The site is currently occupied by an existing structure that will undergo moderate refurbishment, mainly interior demolition of existing partitions and existing walls to create space, there will also be exterior upgrades.

3. Regulatory Framework

The assessment considers the following air quality standards and guidelines:

- The Air Quality Standards Regulations 2010
- National Planning Policy Framework (NPPF)
- Local Air Quality Management (LAQM) guidance
- Bury Council's Air Quality Action Plan

4. Baseline Air Quality

To establish the baseline air quality, existing air quality data from monitoring stations in Bury have been reviewed. Key pollutants of concern include:

- Nitrogen Dioxide (NO₂)
- Particulate Matter (PM₁₀ and PM_{2.5})
- Sulphur Dioxide (SO₂)
- Carbon Monoxide (CO)
- Volatile Organic Compounds (VOCs)

Recent data indicates that air quality in the area generally meets national standards, but there are occasional exceedances of NO₂ and PM₁₀ levels, particularly in areas with heavy traffic.

5. Potential Air Quality Impacts

5.1 Construction Phase

During the refurbishment, potential sources of air pollution include:

- Dust and particulate matter from demolition, excavation, and construction activities
- Emissions from construction machinery and equipment
- Increased traffic from construction vehicles

5.2 Operational Phase

Post-refurbishment, the potential air quality impacts are minimal but may include:

- Increased traffic-related emissions if the building's use changes significantly

6. Mitigation Measures

6.1 Construction Phase

To minimize air quality impacts during construction, the following measures are recommended:

- Implement a Dust Management Plan (DMP) to control dust emissions.
- Use water sprays to suppress dust during demolition and construction.
- Install dust screens or barriers around the site perimeter.
- Ensure all construction vehicles and machinery comply with emissions standards.
- Implement a wheel-washing system to prevent mud and dust from being tracked onto public roads.
- Minimize idling of construction vehicles and machinery.
- Schedule deliveries to avoid peak traffic times, reducing congestion and emissions.
- Monitor air quality around the site to ensure compliance with dust and particulate matter limits.

6.2 Operational Phase

Post-refurbishment measures include:

- Encouraging the use of public transport, cycling, and walking through the provision of facilities such as bike racks and pedestrian-friendly pathways.
- Implementing a green travel plan for building occupants to reduce reliance on personal vehicles.
- Installing energy-efficient systems to minimize emissions from heating and cooling.

7. Monitoring and Reporting

A robust air quality monitoring program should be implemented throughout the construction phase. This includes:

- Regular monitoring of PM10, PM2.5, and NO2 levels at key locations around the site.
- Monthly reporting of monitoring results to the local authority.
- Immediate implementation of corrective actions if pollutant levels exceed thresholds.

8. Conclusion

The refurbishment of the building in Bury has the potential to impact local air quality, primarily during the construction phase. However, with the implementation of the recommended mitigation measures, these impacts can be effectively managed and minimized. Continuous monitoring and adherence to best practices will ensure that air quality remains within acceptable limits, protecting the health and well-being of the local community and environment.

While there are some potential future areas of concern regarding air quality in Bury, overall, the current levels of pollutants appear to be well within acceptable limits. Continued efforts are required to monitor and mitigate sources of pollution to safeguard the health and well-being of the community and protect the environment for future generations.

Appendices

- Appendix A: Detailed Dust Management Plan
- Appendix B: Air Quality Monitoring Plan
- Appendix C: Site Layout and Monitoring Locations Map
- Appendix D: Relevant Air Quality Data and Baseline Conditions

This assessment aims to ensure that air quality considerations are integrated into the refurbishment project planning and execution, fostering a healthier and safer environment for all stakeholders involved.