

# **Air Quality Assessment**

(June 2026)

For the proposed redevelopment to provide  
**32 residential flats**  
37 Albion Street, Southwick

Prepared by PR Homes Direct Ltd

## Status of this document

This assessment comprises (a) a **qualitative construction-phase dust risk assessment** carried out in accordance with the Institute of Air Quality Management (IAQM) methodology, and (b) an **operational-phase screening assessment** carried out against the EPUK/IAQM planning criteria. The IAQM construction-dust assessment is risk-based and does not rely on monitoring; it is substantially complete from the scheme parameters. The operational screening reaches a conclusion from the scheme parameters and the published local air quality position.

If Adur District Council's Environmental Health team require a quantitative assessment, a specialist air quality consultant should be instructed; this document should not be relied upon as a substitute for dispersion modelling where that is required.

No air quality concentrations, monitor readings or risk ratings have been invented. Provisional risk categories in the construction-dust assessment are identified as provisional and are to be confirmed once the physical inputs (building volume, site area, programme) and receptor distances are confirmed.

## 1 Introduction

This statement is prepared in support of a planning application for the redevelopment of 37 Albion Street, Southwick, West Sussex, on behalf of PR Homes Direct Ltd. The proposal involves the demolition of the existing building, currently in sui generis use as car sales and repair premises, and the erection of a purpose-built block of 32 residential flats (5 one-bedroom, 23 two-bedroom and 4 three-bedroom), together with 22 car parking spaces (4 with electric-vehicle charging), 18 cycle spaces, air-source heat pumps and associated landscaping. The site lies on a brownfield plot within the Shoreham Harbour Regeneration Area in the district of Adur.

The purpose of this assessment is to identify whether the development is likely to give rise to significant air quality effects during construction or in operation, and to identify the mitigation required. It addresses both the effect of the development on local air quality and the suitability of the site for the proposed residential use (the exposure of future occupiers).

The assessment is structured as: the legislative, policy and guidance context (Section 2); baseline air quality conditions (Section 3); the construction-phase dust risk assessment and mitigation (Sections 4 and 5); the operational-phase assessment (Section 6); a mitigation summary (Section 7); and the significance evaluation and conclusions (Section 8).

## 2 Legislative, policy and guidance context

### 2.1 National legislation and policy

The framework for local air quality management is set by Part IV of the Environment Act 1995 and the Air Quality (England) Regulations, under which local authorities review and assess air quality against the national air quality objectives and, where an objective is likely to be exceeded, declare an Air Quality Management Area (AQMA). The national objectives include an annual mean of 40  $\mu\text{g}/\text{m}^3$  for nitrogen dioxide ( $\text{NO}_2$ ) and for  $\text{PM}_{10}$ . The Environment Act 2021 introduced long-term targets for fine particulate matter ( $\text{PM}_{2.5}$ ), including an annual mean target of 10  $\mu\text{g}/\text{m}^3$  to be met by 2040.

The National Planning Policy Framework (2024) requires that planning decisions ensure new development is appropriate for its location, taking into account the likely effects of pollution on health and living conditions and the potential sensitivity of the site or the wider area to impacts from pollution. Decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of AQMAs and Clean Air Zones, and the cumulative impacts from individual sites in local areas. The Planning Practice Guidance on Air Quality provides further detail on when and how air quality should be considered.

### 2.2 Local planning policy

The development plan is the Adur Local Plan 2017 (adopted 14 December 2017, plan period to 2032). The Local Plan recognises the relationship between road congestion, traffic and air and noise pollution, and seeks to avoid development causing new pollution problems or exacerbating existing ones.

Adur District Council is currently preparing an Air Quality Strategy (draft consulted upon in early 2026), which sets out how the Council will continue to improve air quality following the

revocation of its former AQMAs, including through planning policy, cleaner transport and the expansion of electric-vehicle charging.

## 2.3 Local validation requirement and guidance

The Adur & Worthing Local Validation List requires that applications demonstrate that the relevant air quality and emissions mitigation guidance has been consulted, with mitigation incorporated at an early stage. This assessment has had regard to the **Air Quality and Emissions Mitigation Guidance for Sussex** (Sussex Air Quality Partnership).

## 2.4 Technical guidance

The assessment has been carried out with reference to: the EPUK/IAQM guidance “Land-Use Planning & Development Control: Planning for Air Quality”; the IAQM “Guidance on the assessment of dust from demolition and construction”; and Defra’s Local Air Quality Management Technical Guidance (LAQM.TG22).

# 3 Baseline conditions

## 3.1 Local air quality management context

Adur District Council formerly operated two AQMAs, both declared in 2005 for exceedances of the NO<sub>2</sub> annual mean objective arising principally from road traffic: one at High Street, Shoreham, and one on Old Shoreham Road (the A270) in Southwick (AQMA Order No. 2). Following a sustained improvement in measured concentrations, with NO<sub>2</sub> recorded consistently below the 40 µg/m<sup>3</sup> objective, **both AQMAs were revoked** (the Council reporting revocation in late 2023). **There are now no Air Quality Management Areas in Adur.** The Council is preparing a district-wide Air Quality Strategy in their place.

The revocation of the former Southwick AQMA, on the strength of NO<sub>2</sub> concentrations below the objective, is a material and favourable element of the baseline: it indicates that local concentrations in the part of Southwick most affected by traffic-related NO<sub>2</sub> are now below the national objective.

## 3.2 Site context and sensitive receptors

The site is a brownfield plot in an established urban area. Its current use as car sales and repair premises is itself a local source of emissions (vehicle movements on and off the site, engine running, and any paint-spraying / solvent use associated with repair work); the proposed residential use would remove these existing on-site sources.

The relevant sensitive receptors are the existing residential properties surrounding the site (for both dust soiling and human-health exposure during construction) and the proposed future occupiers of the development (for operational exposure).

# 4 Construction phase — dust risk assessment

## 4.1 Methodology

The construction-phase assessment follows the IAQM “Guidance on the assessment of dust from demolition and construction.” The methodology considers four activities — demolition, earthworks, construction and trackout — and, for each, combines the dust emission magnitude (Small / Medium / Large, determined by the scale and nature of the activity) with the sensitivity

of the surrounding area (Low / Medium / High, determined by the number, proximity and sensitivity of receptors and the background concentration) to derive a risk category. Mitigation is then assigned in proportion to the risk, and the residual effect is evaluated.

## 4.2 Step 1 — screening

The IAQM guidance indicates that an assessment is required where there is a human receptor within 350 m of the site boundary, or within 50 m of the route(s) used by construction vehicles on the public highway up to 500 m from the site entrance (and correspondingly for ecological receptors). Given the urban context, sensitive receptors are present within these distances, and a detailed dust risk assessment is therefore undertaken below.

## 4.3 Step 2A — dust emission magnitude

The provisional dust emission magnitudes below are assigned from the scale and nature of the scheme (a single, modest-footprint urban block of 32 flats involving demolition of an existing building and new-build construction). They are to be confirmed against the physical inputs.

- **Demolition** — provisionally **Medium** (demolition of an existing building of moderate size on an urban plot).
- **Earthworks** — provisionally **Small** (limited excavation anticipated for a single urban building footprint).
- **Construction** — provisionally **Medium** (new-build residential block).
- **Trackout** — provisionally **Small** (short on-site distance to a surfaced public highway in an urban location).

## 4.4 Step 2B — sensitivity of the area

The sensitivity of the area is assessed separately for dust soiling, human health and ecological effects. Given that the site is surrounded by existing residential properties in close proximity, the area sensitivity for dust soiling and for human health is provisionally assessed as **High**. The human-health sensitivity is moderated by the low background concentrations indicated by the AQMA revocation. The ecological sensitivity is provisionally **Low / negligible**, subject to confirmation of the distance to any designated site. **[VERIFY/INSERT: confirm receptor distances and counts and the nearest ecological designation, to confirm each area-sensitivity category.]**

## 4.5 Step 2C — risk summary (before mitigation)

| Activity     | Dust soiling | Human health | Ecological  |
|--------------|--------------|--------------|-------------|
| Demolition   | Medium*      | Low/Medium*  | Negligible* |
| Earthworks   | Low*         | Low*         | Negligible* |
| Construction | Medium*      | Low/Medium*  | Negligible* |
| Trackout     | Low*         | Low*         | Negligible* |

\*Provisional, pending confirmation of the Step 2A physical inputs and the Step 2B receptor distances. **[VERIFY/INSERT]**

On this provisional basis the highest risk before mitigation is **Medium**, which is typical for an urban demolition-and-construction scheme of this scale. The IAQM guidance is clear that, with the application of good-practice mitigation appropriate to the risk, the residual effect of construction dust is normally **not significant**.

## 5 Construction phase — mitigation and residual effects

A Construction Environmental Management Plan (CEMP) incorporating a Dust Management Plan will be implemented, secured by planning condition. The following good-practice measures (appropriate to a Medium-risk site under the IAQM guidance) will be adopted:

- Communications — display the name and contact details of a site manager responsible for air quality, a complaints log, and the dust management measures on the site boundary; record all dust and air quality complaints and the remedial action taken.
- Site management — plan the layout to keep dust-generating activities away from receptors; keep the site fenced and erect solid screens/barriers around dusty activities where appropriate; remove materials promptly.
- Demolition — use water suppression during demolition; avoid drop heights; where feasible, soft-strip inside buildings before demolition.
- Earthworks and construction — re-vegetate or cover exposed areas and stockpiles; damp down during dry/windy conditions; use cutting/grinding equipment with water suppression or local exhaust ventilation; minimise on-site storage of dusty materials.
- Trackout — use wheel-washing and hard-surfaced haul routes; sheet vehicles carrying dusty loads; sweep access roads and the adjacent highway; impose and enforce on-site speed limits.
- Non-road mobile machinery (NRMM) — use machinery meeting the appropriate emission stage and avoid unnecessary engine idling, consistent with the Sussex emissions mitigation guidance.

With these measures secured by condition and properly implemented, the residual air quality effect of the construction phase is assessed as **not significant**, in accordance with the IAQM guidance.

## 6 Operational phase assessment

### 6.1 Road traffic emissions

The need for an operational traffic-based air quality assessment is screened against the EPUK/IAQM indicative criteria. These indicate that an assessment is generally required only where a development would cause a material change in traffic flows on roads with relevant receptors — for example, a net change of more than 100 light-duty vehicle movements per day where the affected road is within or adjacent to an AQMA, or more than 500 elsewhere (with lower thresholds for heavy-duty vehicles) — or would introduce a new junction/car park of a scale capable of affecting local concentrations.

The development provides only 22 car parking spaces and is car-light by design (parking ratio 0.69). The net change in traffic must be considered against the existing lawful use of the site (car sales and repair), which itself generates vehicle movements; the residential redevelopment is not expected to materially increase, and may reduce, traffic at the site. There

is, in any event, **no AQMA in the vicinity**, the former Southwick AQMA having been revoked. The development therefore falls well below the threshold at which an operational traffic assessment is required, and no significant operational effect on local air quality arises.

## 6.2 Building emissions

The development will be heated by **air-source heat pumps**, with no gas-fired boilers or other on-site combustion plant for space heating or hot water. There is therefore **no operational point-source emission of NO<sub>2</sub>** from the heating of the building — a genuine air quality benefit relative to a gas-heated scheme of equivalent size. No biomass boilers or combined heat and power plant are proposed.

## 6.3 Exposure of future occupiers

The suitability of the site for residential use is supported by the local air quality position: the site is not within an AQMA, and the revocation of the former Southwick AQMA indicates NO<sub>2</sub> concentrations below the national objective in the most affected part of Southwick. Subject to confirmation of the Defra background concentrations at Section 3.2, future occupiers are not expected to be exposed to concentrations exceeding the national objectives.

## 7 Mitigation summary and monitoring

Construction phase: a CEMP incorporating a Dust Management Plan, secured by condition, implementing the good-practice measures at Section 5.

Operational phase: air-source heat pumps (no combustion heating); 4 electric-vehicle charging points and passive provision to support uptake of zero-emission vehicles; 18 cycle parking spaces and a car-light layout to support sustainable travel; and electric-vehicle / emissions measures consistent with the Sussex emissions mitigation guidance and the Council's emerging Air Quality Strategy.

## 8 Significance and conclusions

Applying the EPUK/IAQM approach to significance, the air quality effects of the development are evaluated as follows. The construction-phase dust effects are, with the mitigation secured at Section 5, **not significant**. The operational-phase traffic effects fall below the threshold at which assessment is required and are **not significant**, and the use of air-source heat pumps means there is no operational combustion emission from the building. The site is suitable for residential use, being outside any AQMA and in an area where the relevant former AQMA has been revoked on the strength of compliance with the NO<sub>2</sub> objective.

Subject to confirmation of the items flagged in this assessment, the development would have no significant air quality effect and is acceptable in air quality terms, in accordance with the National Planning Policy Framework (2024), the Planning Practice Guidance, the Adur Local Plan 2017 and the relevant local and Sussex air quality guidance.

## Outstanding items to confirm before submission

- Defra modelled background NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations for the site grid square (Section 3.2) — the only quantitative data the screening conclusion ultimately rests on.
- Distance/relationship between the site (Albion Street) and the former A270 / Old Shoreham Road AQMA corridor, and the latest Annual Status Report monitoring for the Southwick area.
- Nearest sensitive receptor distances and counts (dust soiling and human health), the construction-vehicle route, and the nearest ecological designation.
- Construction physical inputs to confirm the dust emission magnitudes — demolition volume, site area, earthworks volume, total build volume, programme/duration, haul-route length and surfacing.
- Net change in vehicle movements (existing car-sales/repair use versus proposed) from the Transport Statement, to confirm the operational screening.
- Current editions of the EPUK/IAQM and IAQM guidance, and the precise operational indicative criteria.
- Specific Adur Local Plan 2017 pollution/air quality policy reference and any Shoreham Harbour JAAP policy.
- Whether the Sussex Air Quality and Emissions Mitigation Guidance triggers an emissions-mitigation (damage-cost) contribution for the scheme.
- Whether Adur District Council's Environmental Health team require a quantitative air quality assessment; if so, instruct an air quality specialist.