



The PES

Air Quality Neutral Assessment

26th August 2025

**Manor Lodge
Rickmansworth Road
Northwood
HA6 2QT**

Air Quality Neutral Assessment

1.0 Background

The project at Manor Lodge is for the redevelopment of the site, delivering 6 x no. new build dwellings.

The applicant has requested a review of the air quality neutral status for the proposed development.

There is a single dwelling on site at the moment, so this report will consider the net uplift of 5 dwellings.

1.1 Air Quality Neutral

'Air Quality Neutral' is a term for developments that do not contribute to air pollution beyond allowable benchmarks, as set out by the GLA. These are separated into:

- Building Emissions Benchmark (BEB) - emissions from equipment used to supply heat and energy to the buildings
- Transport Emissions Benchmark (TEB) - emissions from private vehicles travelling to and from the development (occupiers)

Additionally, Policy SI 1 of the London Plan includes requirements for new development to be Air Quality Neutral:-

Chapter 9 - Sustainable Infrastructure

Policy SI 1 - Improving air quality

B To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:

1) Development proposals should not:

- a) lead to further deterioration of existing poor air quality
- b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits
- c) create unacceptable risk of high levels of exposure to poor air quality.

2) In order to meet the requirements in Part 1, as a minimum:

a) development proposals must be at least Air Quality Neutral

1.1.2 Local Plan Policy

The project sites within the London Borough of Hillingdon (LBH)

Reference is made to the LBH's Air Quality Action Plan, 2019-2024, adopted in May 2019.

This Air Quality Action Plan (AQAP) has been produced as part the duty to London Local Air Quality Management. It outlines the action LBH will take to improve air quality in the Borough between 2019 and 2024.

It is noted that the AQAP will seek to reduce public exposure and improve air quality around schools; and prioritise the implementation of improvement strategies in the AQ Focus Areas.

It also noted with the action plan (Item 5)

- Emissions from developments and buildings - Enforce Air Quality Neutral (AQN) policy with more stringent application of mitigation required in the Hillingdon Focus Areas

1.2 Air Quality Neutral Assessment

This section presents an air quality neutral assessment in accordance with The London Plan Guidance Air Quality Neutral LPG (Feb 2023).

'Air Quality Neutral' (AQN) is a term for developments that do not contribute to air pollution beyond allowable benchmarks. The benchmarks, set out in this guidance, are based on research and evidence carried out by building and transport consultants.

1.2.1 Excluded Developments

Developments, including major developments which do not include additional emissions sources are assumed to be Air Quality Neutral and do not need an Air Quality Neutral assessment. This would include, for example, developments that have no additional motor vehicle parking, do not lead to an increase in motor vehicle movements, and do not include new combustion plant such as gas-fired boilers.

The applicant has confirmed the following details for the proposed conversion project as follows:-

- All heating and domestic hot water systems will be electrically driven – Ref Energy and Sustainability Statement – Love Design Studio – March 2025

- The proposal includes 2 parking spaces per dwelling – as required by the regional and local parking standards.

1.2.2 Building Emissions

In accordance with the Air Quality Neutral Guidance document (AQNG), the project is air quality neutral by default, as it does not introduce any new fossil fuel combustion plant.

1.2.3 Transport Emissions

The Transport Emission Benchmark (TEB) is defined as the predicted number of trips per m² of floorspace (GIA) over a year (trips/m²/year) for non-residential use, or the anticipated number of trips per dwelling (trips/dwelling/year) for residential use.

As the project is in the Northwood West Focus Area, the full procedure for the Transport Emissions Benchmark (TEB).

The TEB only estimates car or light van trips generated by the development occupiers. These trips are likely to be generated by residents, customers or employees. The TEB does not include trips generated by deliveries and servicing, taxis or heavy vehicle movements from non-occupiers.

Table 1: Benchmarked Transport Emissions

Pollutant/Land Use	Number of Dwellings or GIA (m ²)	TEB (trips/annum) Inner London	Total Trips
Residential	5	447	2,235
TOTAL TRIPS			2,235

The submitted Transport Assessment prepared by PJA (March 2025) for the project confirms a daily trip rate at 2.03driven cars or vans/dwelling, an annual total of **3,707**. Accordingly, the project could be liable for damage costs as per the calculation attached at **Appendix A**.

1.3 Mitigation

The GLA guidance on Air Quality Neutral assessment is clear that; if development is still not able to meet the benchmarks, the next step is to seek agreement with the local planning authority to secure on- or off-site mitigation measures, with on-site measures preferred. Mitigation measures should exceed the minimum requirements in the London Plan policies.

Accordingly, the design team for the Manor Lodge Project are proposing the following works as part of the site development:-

- 2 x EV charging point per dwelling, enable each dwelling to operate 2 x electric cars.

The above measures are in exceedance of the minimum requirements in the London Plan policies.

Accordingly, allowing for the 5% green measures discount, the design team for the Manor Lodge Project are pay the damage costs as per the calculation at **Appendix A** in the sum of **£11,956.00**.

1.4 Conclusion

The Manor Lodge redevelopment has been designed in accordance with the latest Air Quality Neutral (AQN) guidance.

While the development exceeds the benchmark transport emissions and is therefore liable for an offset payment, the proposed off-site mitigation measures will be secured by S106 agreement; to pay the damage costs in the sum of £12,585.00.

Appendix A

Damage Cost Calculations

The simplified formula is $\{(E + J + O + T) \times 40.568079205$

Calculation of Benchmark emissions			Emissions (g/veh/km)		Total Emissions (Kg)	
Land Use	Benchmark trip rate	Average distance per trip	NOx	PM2.5	NOx	PM2.5
C3 Residential	2235	11.4	0.35	0.028	8.9	0.7
Office / Light Industrial	0	10.8	0.35	0.028	0.0	0.0
Hotel (Class C1)	0	10.8	0.35	0.028	0.0	0.0
Assembly and leisure D2	0	10.8	0.35	0.028	0.0	0.0
Retail (Superstore)	0	10.8	0.35	0.028	0.0	0.0
TOTAL BENCHMARK EMISSIONS					8.9	0.7
Calculation of Development emissions			Emissions (g/veh/km)		Total Emissions (Kg)	
Land Use	Proposed trip rate	Average distance per trip	NOx	PM2.5	NOx	PM2.5
C3 Residential	3,707	11.4	0.35	0.028	14.8	1.2
Office / Light Industrial	0	10.8	0.35	0.028	0.0	0.0
Hotel (Class C1)	0	10.8	0.35	0.028	0.0	0.0
Assembly and leisure D2	0	10.8	0.35	0.028	0.0	0.0
Retail (Superstore)	0	10.8	0.35	0.028	0.0	0.0
TOTAL DEVELOPMENT EMISSIONS					14.8	1.2
Calculation of Excess emissions and offsetting payment			Excess Emissions		Damage cost	Annual offsetting amount
Benchmarks	Total Emissions (tonnes per annum)		Excess Emissions		£ per tonne	(£)
Transport NOx emissions	0.009		0.015	0.006	£33,064	£194.20
Transport PM2.5 emissions	0.001		0.001	0.000	£246,942	£116.03
TOTAL OFFSETTING	£12,585 as per the London Plan Air Quality 2023 guidance					
Travel Plan - 15% discount	£0					
Green Measures - 5% discount	£629					
Contribution to Long Term Strategic LBH Projects - 15% discount	£0					
<i>Total Discount</i>	<i>£629</i>					
£106 Due	£11,956					

Table A1.3 Calculation of benchmark emissions (Example 1)

Land use	Benchmark trip rate	Average distance per trip (km)	Emissions (g/veh-km)		Total emissions (kg)	
			NOx	PM2.5	NOx	PM2.5
Residential	36,936	3.4			49.0	4.0
Retail	16,680	5.5	0.39	0.032	35.8	2.9
Office	110	7.2			0.31	0.03