MITIGATION MEASURES VERIFICATION REPORT - WARREN ROAD, WORTHING

Background

Redmore Environmental Ltd was commissioned by Lawrence Baker Limited to provide a Mitigation Measures Verification Report to address planning condition 23 for the development of a care home at 106 - 108 Warren Road, Worthing.

The proposals comprise the demolition of the existing structures at 106 and 108 Warren Road and subsequent construction of a three and a half storey care home to provide 82 rooms alongside associated car parking and facilities.

Planning permission has been granted by Worthing Borough Council (WBC) (reference: AWDM/0769/20) for the development, subject to a number of conditions. These include the following in relation to air quality:

> "23. Air Quality
> Prior to occupation of the development, a verification report shall be submitted to and approved in writing by the Local Planning Authority to demonstrate and confirm that the Air Quality Mitigation measures under condition 22 of this planning permission, have attained air quality mitigation to the value of the calculated damage cost stated at 5.4.12 of the Air Quality Assessment by Redmore Environmental Consultants, (ref: 3537r3) dated 17th August 2020. If this is not demonstrated and confirmed, the applicant shall complete an agreement with the Local Planning Authority (under s.106 of the Town and Country Planning Act 1990, as amended) within a time period which must first be agreed by the Local Planning Authority to provide a contribution to Worthing Borough Council equivalent to the unmitigated damage cost.
> Reason: To minimise emissions and impact on air quality in accordance with Policies 16 & 17 and paras 180 - 181 of the National Planning Policy Framework, 2019."

A Mitigation Measures Verification Report has therefore been completed to address the above condition by demonstrating the mitigation measures listed in the Air Quality Assessment

(reference: 3537r3)[1] undertaken by Redmore Environmental have attained their calculated damage cost. This is provided in the following Technical Note.

This Mitigation Measures Verification Report should be read in conjunction with the Evergreen Infrastructure Air Quality Statement[2] (reference: 3537-1c1) produced by Redmore Environmental to address planning condition 22.

Mitigation Measures

A damage cost assessment in accordance with the Air Quality and Emissions Mitigation Guidance for Sussex[3] was undertaken as part of the Air Quality Assessment[4] completed by Redmore Environmental and submitted as part of the planning application. This determined that the development should include mitigation measures to reduce the air quality impacts of road traffic emissions equal to £7,796.

A number of mitigation measures and their associated costs were provided for inclusion within the proposals. These have been reproduced from the Air Quality Assessment and are shown in

Table 1.

Table 1 Mitigation Measures and Associated Costs

Mitigation Measure	Cost (£)
16 Sheffield Style Cycle Racks	2,400
Local Recruitment Policy	80
Make users aware of local facilities	80
Promote Walking/Cycling Routes	80
Bicycle Purchase Scheme/ Interest-Free Season Ticket Loan	60
Publicise Public Transport Routes	80
Promote Car Share Database	80
Promote Sustainable Travel on the Website	200

1 Warren Road, Worthing, Air Quality Assessment, Reference: 3537r3, Redmore Environmental, 2020.
2 Evergreen Infrastructure Air Quality Statement, Reference: 3537-1c1, 2024.
3 Air Quality and Emissions Mitigation Guidance for Sussex, Sussex Air Quality Partnership, 2020.
4 Warren Road, Worthing, Air Quality Assessment, Reference: 3537r3, Redmore Environmental, 2020.

Welcome Packs	501 per pack
Bicycle Puncture Repair Kit	56
Travel Noticeboard/Information Point	80

As shown in

Table 1, the total value of mitigation measures to be incorporated into the development was £3,697. Given that this value was below the damage cost of £7,796, the Applicant agreed to allocate the remaining £4,099 to invest in evergreen infrastructure.

Mitigation Measures Costs

The final costs for a number of the measures outlined within the report[5] and reproduced in

Table 1 above, have been provided by the Applicant. These are provided in Table 2 alongside the associated evidence.

[5] Warren Road, Worthing, Air Quality Assessment, Reference: 3537r3, Redmore Environmental, 2020.

Table 2 Mitigation Measures and Finalised Costs

Mitigation Measure	2020 Cost (£)	Actual Cost (£)	Evidence
16 Sheffield Style Cycle Racks	2,400	2,862.20	Figure 1
Local Recruitment Policy	80	-(a)	-
Make users aware of local facilities	80	-(a)	-
Promote Walking/Cycling Routes	80	-(a)	-
Bicycle Purchase Scheme/ Interest-Free Season Ticket Loan	60	-(a)	-
Publicise Public Transport Routes	80	-(a)	-
Promote Car Share Database	80	-(a)	-
Promote Sustainable Travel on the Website	200	-(a)	-
Welcome Packs	501 per pack	546.70 per pack	Figure 2
Bicycle Puncture Repair Kit	56	64.52	Figure 3
Travel Noticeboard/Information Point	80	104.50	Figure 3
Investment in additional evergreen infrastructure	4,099	30,914.50	Email Correspondence

Note: (a) Cost not available prior to occupation of the development.

The total value of the mitigation to date, as shown in Table 2, is £34,476.42. It should be noted that the cost for a number of measures will not be available until occupation. However, it is likely they will meet the values listed in

Table 1. The costs for the remaining measures exceed the value provided within the Air Quality Assessment[6] thereby demonstrating they have attained their air quality mitigation value.

Consultation was undertaken between Clyde Dalrymple at Archway Green and Jason Wells, Contracts Manager at Lawrence Baker on 26th September 2024 to determine the costs for evergreen infrastructure. The response received by Clyde indicated the following:

"Hello Jason,

[…]

6 Warren Road, Worthing, Air Quality Assessment, Reference: 3537r3, Redmore Environmental, 2020.

> If you were to take an average plant cost of £8.50 it would come to approximately £30914.50 […]."

As indicated above, the overall cost of the evergreen infrastructure to be planted will greatly exceed the value provided in the Air Quality Assessment[7] and shown in

Table 1. Further details on the Landscape Strategy can be found in the Evergreen Infrastructure Air Quality Statement produced by Redmore Environmental[8].

Based on the above information and the supporting evidence, it is suggested that planning condition 23 is discharged.

Mitigation Measures Verification Report produced by Emily Macey, Senior Air Quality Consultant, Redmore Environmental, on 25th October 2024.

7 Warren Road, Worthing, Air Quality Assessment, Reference: 3537r3, Redmore Environmental, 2020.
8 Evergreen Infrastructure Air Quality Statement, Reference: 3537-1c1, 2024.

Figures

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VO - Air Quality - Cycle Hoops

04/07/2024

We have been requested to provide costs in association with air quality mitigations measures.
The costs associated with these works are shown below:

	Quantity	Rate	Total
Omit:			
N/A			
Add:			
Prepare foundation to 2no cycle store locations – 250mm subbase, 100mm concrete slab	1.00 nr	£1,386.00	£ 1,386.00
Supply and install galvanised powder coated cycle hoops	8.00 nr	£152.00	£ 1,216.00
Total price £2,602.00			

Clarifications:
LB reserves the right to pass on any cost increase if incurred prior to Formal Instruction
Presumed no additional works required to door mechanisms

Add	£ 2,602.00
Overheads & profit @ 10%	£ 260.20
TOTAL COST	£ 2,862.20

Legend

Title
Figure 1 - Evidence of Costs for Cycle Storage

Project
Mitigation Measures Verification Report
Warren Road, Worthing

Project Reference
3537c1

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VO - Air Quality - Transport Welcome Packs 19/07/2024

We have been requested to provide costs in association with air quality mitigations measures.
The costs associated with these works are shown below:

	Quantity	Rate	Total
Omit:			
N/A			
Add:			
Prepare sustainable transport welcome pack	1.00 nr	£345.00	£ 345.00
Provide hard copy	1.00 nr	£152.00	£ 152.00
Total price £497.00			

Clarifications:
LB reserves the right to pass on any cost increase if incurred prior to Formal Instruction
Presumed no additional works required to door mechanisms

Add	£ 497.00
Overheads & profit @ 10%	£ 49.70
TOTAL COST	£ 546.70

Legend

Title
Figure 2 - Evidence of Costs for Welcome Packs

Project
Mitigation Measures Verification Report
Warren Road, Worthing

Project Reference
3537c1

Client
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VO - Air Quality - Bicycle Repair Kit and Travel Notice Board 10/10/2024

We have been requested to provide costs in association with air quality mitigations measures.
The costs associated with these works are shown below:

	Quantity	Rate	Total
Omit:			
N/A			
Add:			
Supply bicycle repair kit consisting of puncture repair pack, pump, wrench and multi-tool	1.00 nr	£58.65	£ 58.65
Supply and install 1no 1200 x 900mm travel notice board to staff rest area	1.00 nr	£95.00	£ 95.00

Clarifications:
LB reserves the right to pass on any cost increase if incurred prior to Formal Instruction
Presumed no additional works required to door mechanisms

Add	£ 153.65
Overheads & profit @ 10%	£ 15.37
TOTAL COST	£ 169.02

Legend

Title
Figure 3 - Evidence of Costs for Bicycle Puncture Repair Kits and Travel Noticeboard

Project
Mitigation Measures Verification Report
Warren Road, Worthing

Project Reference
3537c1

Client
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