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Denville Hall Development Ltd

DENVILLE HALL, NORTHWOOD

Low Emission Strategy

Independent, multidisciplinary engineering
and environmental consultants

DENVILLE HALL, NORTHWOOD

Low Emission Strategy

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EXECUTIVE SUMMARY

This Low Emission Strategy is prepared to support a discharge of condition application relative to a new assisted-living scheme that has already been granted planning permission on land at Denville Hall, Northwood. The planning permission is ref: 924/APP/2022/3603 granted by London Borough of Hillingdon and Condition 8 of the permission states:

No development shall commence until a low emission strategy (LES) has been submitted to and approved in writing by the Local Planning Authority. The LES shall address but be not restricted to:

- 1) secure compliance with the current London Plan (March 2021) and associated Planning Guidance requirements in terms of air quality.
- 2) consider the implementation of a FAST electric vehicle charging bay for cars. This is to be implemented above the minimum number of charging points required in the London Plan.
- 3) Develop a robust Travel Plan to make it ambitious with a clear and effective strategy to encourage staff/users of the Site to
 - a) use public transport;
 - b) cycle/walk to work where practicable;
 - c) enter car share schemes;
 - d) purchase and drive to work zero emission vehicles.

The measures in the agreed scheme shall be maintained throughout the life of the development.

REASON

As the application site is within an Air Quality Management Area, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part One – Strategic Policies (2012), Policy DME1 14 of the Hillingdon Local Plan: Part Two – Development Management Policies (2020), the London Borough of Hillingdon Air Quality Action Plan 2019–2023, Policies SI1 and T4 of the London Plan (2021), and paragraphs 174(e), 186 and 188 of the National Planning Policy Framework (2021).

This strategy provides a package of measures to help reduce greenhouse gas emissions due to the projects through energy-efficient design and construction practices. This strategy, particularly, will help to reduce and mitigate the impacts relating to transport-related emissions associated with the development.

The key benefit of the Low Emission Strategy is to guide the design team to incorporate the recommended measures to reduce the emissions due to the development, particularly supporting local government's efforts in reducing transport emissions by accelerating the uptake of low-emission fuels and technologies in and around a new development, It will also promote a modal shift away from car travel.

The Low Emission Strategy enables a broad package of measures that need to be implemented to reduce transport emissions arising due to this scheme. These measures include strategies for both the construction and operational phases of the development.

A Travel Plan has been carried out in conjunction with this report for the Proposed Development which provides the logical mechanism for integrating the development of this Low Emission Strategy for the scheme. This strategy will help to make a more positive contribution to reducing the impact of the development on local air quality and contribute to wider sustainability goals.

1.0 INTRODUCTION

- 1.1 Create Consulting Engineers Ltd has been instructed by Denville Hall Development Limited to produce this "Low Emission Strategy" (LES) to satisfy part of Condition 8 set out in the grant of planning permission letter from London Borough of Hillingdon dated 24th November 2023.
- 1.2 This Low Emission Strategy outlines a package of measures proposed to reduce emissions, aligning with nation and local planning requirements. The LES details provisions for sustainable construction, low-carbon transportation, and air quality mitigation to ensure compliance with local planning policies and environmental standards.
- 1.3 This document outlines the underlying principles of low-emission strategies and contains measures to reduce transport-related emissions, uptake of low-emission fuels and technologies, and help to promote a modal shift away from car travel. This will help to contribute towards achieving local government performance targets, contribute to schemes' sustainability goals and will also add to wider sustainable development goals.

Site Location and Description

- 1.4 Development description: Demolition of no. 48 and no. 60 Ducks Hill Road, garage and wooden storage unit and the erection of three new buildings comprising of 12 assisted-living units (Class C2), proposed ancillary communal space, including cafe and restaurant, external connecting link building, landscaping and external works.
- 1.5 Figure 1.1 below shows the Site wider site location, with a detailed redline boundary plan included at the Plans section at the back of this report.



Figure 1.1: Site location and surrounding area (Source: Google)

2.0 EXISTING SITUATION/PROPOSED DEVELOPMENT

2.1 The Proposed Development comprises:

The demolition of no. 48 and no. 60 Ducks Hill Road and derelict garage and the erection of 12 assisted living units (Class C2) in two separate buildings (Buildings A and B) and proposed ancillary communal space, including café and restaurant (Building C) accessed through connecting link building. Proposals to include new comprehensive landscaping proposals. The main access to Ducks Hill Road will be relocated as will parking areas within the Site.

2.2 The Site is located on the west side of Ducks Hill Road and approximately 35m north of the junction of Northgate and Ducks Hill Road. Denville Hall is a retirement home and specialist dementia wing for retired actors and theatrical professionals. There are 2 accesses to Ducks Hill Road. The main access leads to the front of the primary buildings and parking/delivery areas. The secondary access leads to a former house (No.48) that was divided into 6 flats (flats 1 – 6, 48 Ducks Hill Road) that were separate from the main Denville Hall.

2.3 Ducks Hill Road is classified as the A4180 and is an important distributor road that links Northwood and Ruislip. In the vicinity of the Site it is a wide single carriageway which is subject to a 30mph speed limit. Ducks Hill Road is on a curved horizontal alignment with a gradual gradient down to the south. Frontage access is prevalent. The centreline of the carriageway is denoted by a solid white line which affects southbound traffic to the north of the Site and northbound traffic to the south of the Site. This is due to the limited forward visibility created by the curved alignment of the carriageway.

2.4 The Site has a PTAL rating of 1b which is “poor”, see Figure 2.1 below.

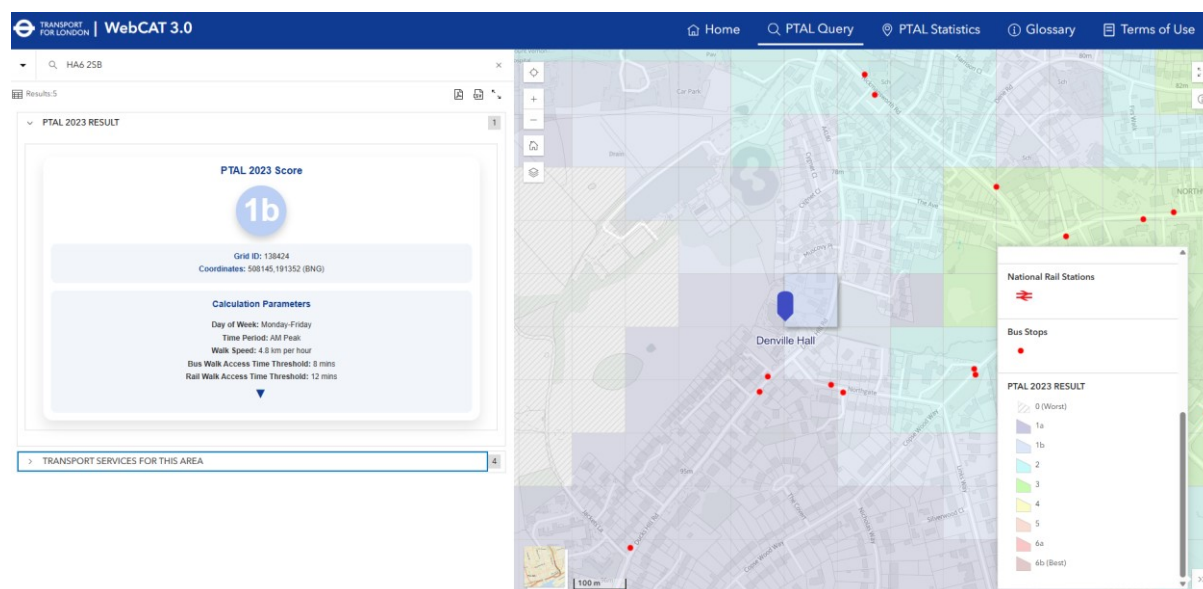


Figure 2.1: PTAL Rating

2.5 However, bus stops for route 331 are within 85m of the Site frontage and this route provides 3 buses per hour in the peak morning period. The proximity and frequency of the service provides an attractive and convenient alternative to travelling by car for visitors and staff. Northwood underground station (Metropolitan line) is a 975m walk distance from the Site. Whilst this is outside of the PTAL catchment distance it equates to a 12-minute walking time and is within the “acceptable” walking distance of

1000m recommended by the Chartered Institute of Transport in its publication *"Guidelines for Providing Journeys on Foot"*.

Walking Infrastructure

- 2.6 Continuous street lit footways are present on both sides of Duck's Hill Road adjacent to the Site and throughout the surrounding road network.
- 2.7 Northwood underground station (Metropolitan line) is a 975m walk distance from the Site. Whilst this is outside of the PTAL catchment distance it equates to a 12-minute walking time and is within the "acceptable" walking distance of 1000m recommended by the Chartered Institute of Transport in its publication *"Guidelines for Providing Journeys on Foot"*.
- 2.8 The Site benefits from existing pedestrian infrastructure. Figure 2.2 below shows walking isochrones from the Site for a 20 minute walking time with 5 minute intervals:

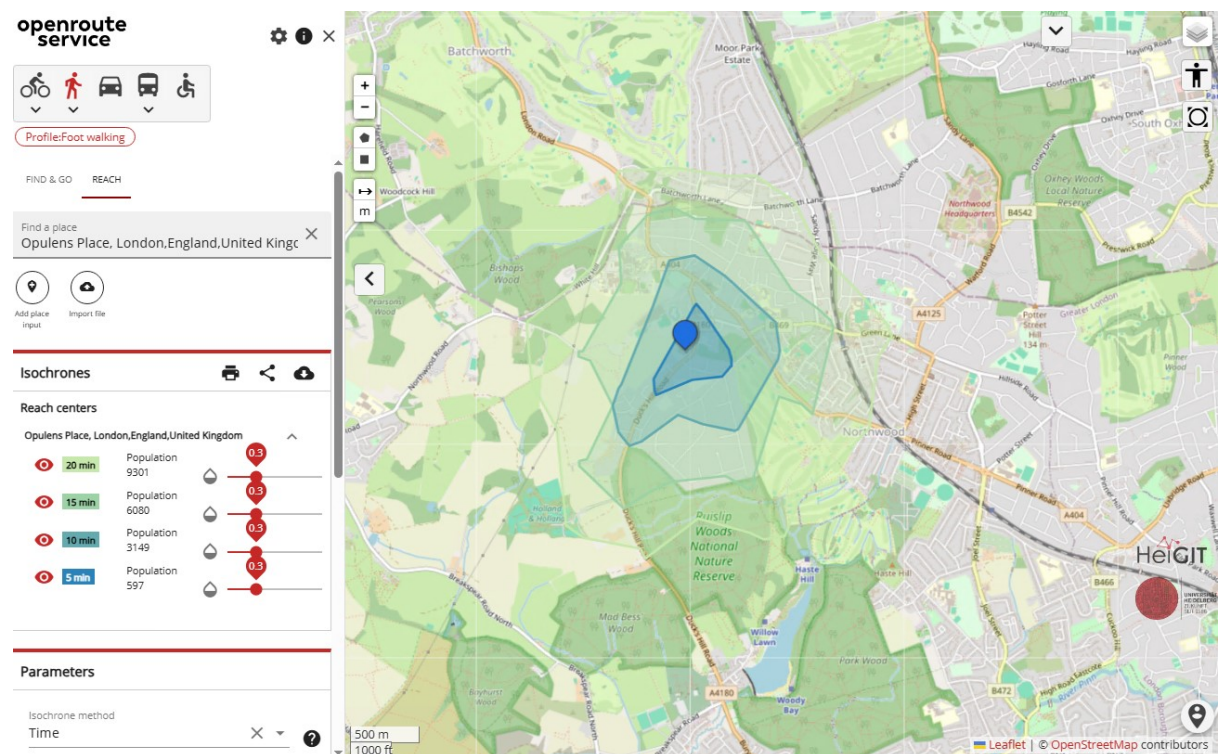


Figure 2.2: Walking Isochrones (source: <https://maps.openrouteservice.org/>)

- 2.9 Figure 2.2 demonstrates the residential estates to the north, south and west of the Site are largely accessible within a readily accessible walking distance from the Site.

Cycling Infrastructure

- 2.10 There is a lack of dedicated cycling facilities such as cycle lanes or footway/cycleways provided in the vicinity of the Site. With on street cycling required to access the Site.
- 2.11 Figure 2.3 below shows cycling isochrones from the Site for a 20 minute cycle time with 5 minute intervals:

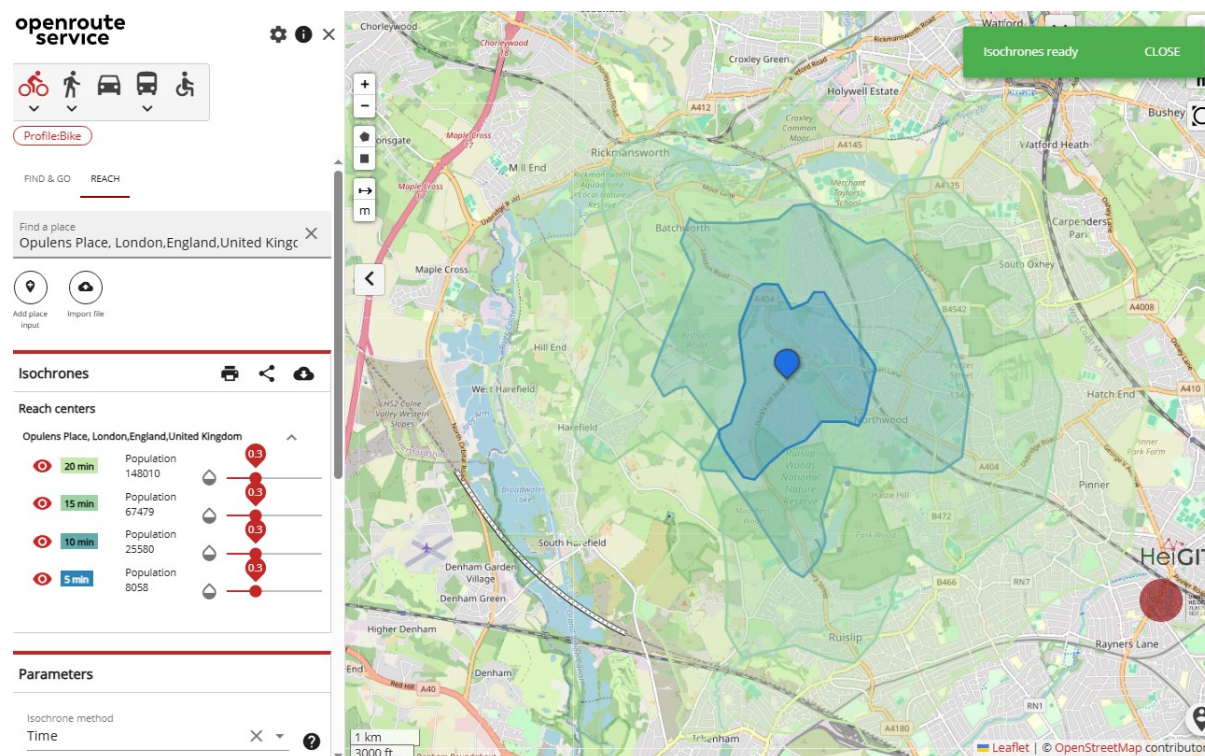


Figure 2.3: Cycling Isochrones (Source: <https://maps.openrouteservice.org/>)

- 2.12 Figure 2.3 demonstrates the majority of Northwood is within readily achievable cycling distance from the Site for keen cyclists.

Current Activity at Existing Site

- 2.13 There are currently five buildings spread across the Site. The 16th century locally listed building (partially rebuilt in 1851) with the modern 2000's extension to the north which houses the retirement home and specialist dementia wing for professional actors and theatrical professions.
- 2.14 The subsequent four more buildings onsite, one outbuilding next to the main (marked as Building C), a derelict old garage (Building D), a disused building divided into flats (Building B) and a single storey mid-century disused bungalow (Building A).
- 2.15 The rest of the Site is covered mostly by soft landscaping with a large carpark by the main building covered with tarmac and the main access tarmac route.
- 2.16 Buildings A, B and D are all currently not in use. Building C is an outbuilding and does not currently generate/attract specific trips.

Potential Trip Generation

- 2.17 The existing staff follow strict shift patterns with the majority of carers and nurses working 12 hour shifts that start and finish at 08:00/20:00.
- 2.18 The proposed car park that will be served by the secondary access road is intended for use by staff only. On average, around 12 staff drive to work for the morning shift and arrive by 07:45 and 4 staff drive on the night shift leaving after 08:00. As such, there is a very low risk of staff cars meeting along the access road, but in the event that they do, there are opportunities to pass along the route where there are localised areas where the width increases to 4.9m. In terms of traffic volumes, if all of the daytime staff arrived by car (as opposed to walking, cycling, carsharing) then the peak 2-way flow would equate to up to 16 car movements between, 07:30 and 08:00. This is an average of one car movement every 4 minutes.
- 2.19 This level of traffic activity will not result in a "severe" impact as required by paragraph 111 of the NPPF. The baseline against which the proposed use of the access must be assessed is the historic use of the access to serve 6 flats. As such, whilst there is potential for the proposed use to increase traffic activity the increase will be marginal.
- 2.20 This Travel Plan looks to reduce the Proposed Development vehicle trip generation further by encouraging the use of sustainable modes of transport as well as car sharing between staff members.

3.0 CURRENT AND FUTURE PLANNING POLICIES/GOOD PRACTICE REVIEW AND PROJECT REQUIREMENTS

Climate Change Act 2008 (2050 Target Amendment)

- 3.1 On 26th November 2008, the UK Government published the Climate Change Act 2008, the world's first long-term legally binding framework to mitigate against climate change. The Act initially set legally binding targets for greenhouse gas emissions reduction of 80% by 2080 (from 1990 levels). This was amended in 2019 to a revised target of a 100% reduction in carbon emissions by 2050, over the 1990 baseline emissions levels, known as the net-zero target. In addition, there interim carbon budget levels, which provide stepping stones to achieve the overall target.

National Planning Policy Framework August 2026

Planning for climate change

- 3.2 Development plans should take a proactive approach to mitigating climate change and supporting the transition to net zero, in accordance with the objectives and provisions of the Climate Change Act 2008. They should also take a proactive approach to adapting to climate change, taking into account the implications of extreme weather and long-term climate trends including overheating, wildfires, drought, flood risk, coastal change, water supply, biodiversity and landscapes. They should do this by:
- a. Proposing development patterns through their spatial strategy and allocations which:
 - I. Can help contribute to radical reductions in greenhouse gas emissions (which can be informed by an assessment of baseline carbon emissions and the potential effect of development options on future emissions and their mitigation); and
 - II. Avoid increased vulnerability and improve resilience to the effects of climate change (including through providing for necessary infrastructure improvements and the future relocation of homes and other uses where public safety would be at risk, for example as a consequence of coastal change).
 - a) Addressing any specific risks from climate change in their proposed allocations for development, and necessary adaptations, both of which should be considered for the anticipated lifetime of the development;
 - b) Setting local water efficiency standards for new development where these are justified in accordance with policy PM13; and
 - c) Identifying opportunities for green infrastructure provision and nature-based solutions which can safeguard and improve carbon storage, support nature recovery and resilience, and which take account of Local Nature Recovery Strategies in accordance with policy N1.

Local Planning Policy

The London Low Emission Zone

- 3.3 The London Low Emission Zone (LEZ) is an area of London in which an emissions standard based charge is applied to non-compliant commercial vehicles. Its aim is to reduce the exhaust emissions of diesel-powered vehicles in London. This scheme should not be confused with the Ultra Low Emission Zone (ULEZ), introduced in April 2019, which applies to all vehicles. Vehicles that do not conform to various emission standards are charged; the others may enter the controlled zone free of charge. The low emission zone started operating on 4 February 2008 with phased introduction of an increasingly stricter regime until 3 January 2012. The scheme is administered by the Transport for London executive agency within the Greater London Authority.
- 3.4 The current standard for large commercial vehicles (over 3.5 tonnes) is Euro VI, increased from Euro IV on 1 March 2021.

LONDON BOROUGH OF HILLINGDON LOCAL PLAN PART 2 DEVELOPMENT MANAGEMENT POLICIES

Air Quality states:

- 3.5 Hillingdon declared an Air Quality Management Area in September 2003 which covers the Borough from the Chiltern–Marylebone railway line southwards. Following on from this, an Air Quality Action Plan was approved by the Council in 2004. In conjunction with other bodies, this aims to put in place measures to reduce air pollutant emissions and improve local air quality. 6.63 At certain locations such as alongside major roads and around Heathrow Airport, the level of atmospheric pollutants is consistently high. The inclusion of stringent mitigation measures will need to be introduced before consideration of new development in the area, especially where any development proposal either introduces new residents into areas of poor air quality or would lead to deterioration in air quality for existing residents. 6.64 The main focus of improvement will be on those areas where air quality objectives are currently exceeded. However, it is important to make certain that work continues to ensure that the recommended levels are, at the very minimum, maintained and preferably showing continued improvement for all the residents in the Borough. 6.65 Planning applications for all relevant development should contain an assessment of the likely future levels of air quality in the area and take account of the provisions of the Mayor of London's Sustainable Design and Construction SPD. The Council's latest planning guidance on Air Quality sets out how the assessments should be undertaken.

Policy DMEI 14: Air Quality

- A) Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.
- B) Development proposals should, as a minimum:
 - i) be at least "air quality neutral";
 - ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and
 - iii) actively contribute towards the improvement of air quality, especially within the Air Quality Management Area.

Hillingdon Strategic Climate Action Plan (Adopted July 2021)

Climate change and air pollution states:

- 3.6 Climate change stems from greenhouse gas emissions that collectively combine to change the atmosphere. This is a global problem. One of the predominant greenhouse gases is carbon dioxide and emissions from vehicular movements has long been identified as a significant contributor. To tackle this problem car manufacturers and governments placed an emphasis on vehicles with lower carbon dioxide emissions, this caused an increased supply and demand for diesel vehicles.
- 3.7 However, a 'side effect' of an increase in diesel vehicles to reduce carbon emissions was to generate significant local air quality problems through the creation of other emissions, notably nitrogen dioxide and fine polluting particles.
- 3.8 The impacts of local air pollution on health and wellbeing is a serious matter in its own right, with more and more evidence demonstrating harmful consequences for those repeatedly exposed to poor air quality. It is therefore important that global climate change and local air pollution are not treated as the same issue.
- 3.9 Notwithstanding that, mitigation for climate change can benefit local air quality and vice versa. For example, more street trees can increase the amount of carbon absorption but are now also recognised to help filter out local air pollutants as well. Similarly, no idling campaigns to ensure people don't leave their engines running can have a significant impact on reducing local air pollutants whilst also have some benefit in reducing carbon emissions.
- 3.10 Electric vehicles will be a major benefit in tackling emissions that impact both local air quality and climate change; the latter more so when the national grid becomes increasingly dependent on renewable and clean sources of energy.
- 3.11 Our priority is to ensure that the action plans for improving air pollution are aligned with those in this plan. There are clear linkages across the range of strategies that needs to be considered further in an open and transparent manner.

4.0 LOW EMISSION STRATEGY

- 4.1 A Low Emission Strategy provides package of measures to help mitigate the transport impacts of the development. It complements the design and mitigation options, such as travel planning and provision of public transport infrastructure to promote sustainable transport goals of the local government. The following applicable strategies have been incorporated by the applicant to demonstrate how the scheme has taken all reasonable measures to reduce transport-related emission impacts of the Proposed Development. The following sustainable transport measures are confirmed in the Travel Plan ref: AF/VL/P25-3695/01.

Category	Item	Proposed Measures
Electric and Low Emission Vehicles Uptake		
Residential developments	<i>Charging Point (standard or fast where possible) for all private and allocated parking spaces</i>	As documented in the Travel Plan and shown on the proposed layout plans, electric car charging point(s) will be incorporated provided into the scheme.
Behavioural Change and Travel Plan: Modal Shift Facilities and Incentives		
Modal Shift Facilities and Incentives	<i>Phasing of the cycling/pedestrian infrastructure</i>	The proposed infrastructure within the Site has been designed to allow safe and efficient movement of cyclists and pedestrians with clearly defined routes for non-motorised users.
	<i>Secure bike storage facilities (site wide)</i>	Secure cycle parking for at least five cycles is to be provided on the Site, accessed primarily via the secondary connection onto Duck's Hill Road.
	<i>Personalised Active Travel Plans</i>	As part of the implementation of the Travel Plan, a Travel Plan Co-ordinator will be appointed to implement measures aimed at maximising the uptake of walking, cycling, public transport and car sharing and to oversee all aspects of the Travel Plan, including: Consulting with management and staff on a regular basis; Provision of a Travel Information Pack to be made available to all employees, residents and regular visitors, this will

Category	Item	Proposed Measures
		include relevant travel information such as public transport information and local route maps;
		The use of newsletters within the Proposed Development to provide updated information on more sustainable transport options.
Parking Provision		
Parking Allocation and Facilities	<i>Priority Parking Bays for Low Emission Vehicles (with provision of Charging Points)</i>	The main access to Ducks Hill Road will be relocated as will parking areas within the Site. There will be 14 parking spaces arranged on either side of the main access road. There will be a delivery "bay" located adjacent to building "A". Further parking (18 spaces) will also be provided accessed via the secondary connection onto Duck's Hill Road. In total, parking for 32 cars will be provided with two of these being served by active electrical charging points and a further 2 passive electrical charging points. A total of four accessible spaces will be provided.
Support for Sustainable and Low Emission Public Transport	<i>Participation in district wide public transport schemes</i>	Bus stops are located on Duck's Hill Road approximately 150m to the South of the Site and are connected to the Site by existing footways on both sides of the carriageway. Noticeboard(s) will be displayed in publicly accessible areas, displaying a list of current bus and train services, along with directions to websites for real-time timetables.
	<i>Contributions for sustainable transport infrastructure enhancement, such as new guided busways, cycle routes, train stations etc.</i>	New 1.80m wide footways are proposed from the Site's main access into the Site from Duck's Hill Road connecting with existing footway provision along Duck's Hill Road itself. This will encourage residents, staff and visitors to choose active modes of transport such as walking and cycling than using private car for short-distance travel.

- 4.2 The following applicable strategies have been incorporated by the applicant to demonstrate how the scheme has taken all reasonable measures to improve air quality by reducing emissions from the Proposed Development.

Improving Air Quality Measures		
Category	Item	Proposed Measures
Design Measures		
Low carbon energy	<i>At least 10% of the buildings carbon emissions through the use of on-site renewable and/or low carbon energy</i>	The Proposed Development will incorporate Air Source Heat Pumps (ASHP) as Low and Zero Carbon (LZC) technology.
Optimised design	<i>New development should be designed to minimise public exposure to pollution sources by</i> • <i>Locating habitable rooms away from busy roads</i> • <i>Avoiding building configuration along busy roads that inhibits effective pollution dispersion (street canyons),</i> • <i>Considering the proximity of sensitive receptors such as schools to busy roads.</i> • <i>Introducing green infrastructures and barriers to reduce pollutants</i>	The development will be designed to minimize public exposure to pollution sources by incorporating strategies such as; • Locating habitable rooms away from busy roads • Avoiding building configurations along busy roads that inhibit effective pollution dispersion. • Introducing green infrastructure and barriers (e.g., trees, hedges, and green walls) to mitigate pollutants.
Construction standards	<i>Many measures to enhance the sustainability and energy efficiency of the built environment also have the additional benefit of delivering mutually beneficial air quality objectives. Construction standards such as BREEAM and Home Quality Mark (HQM) include consideration of air quality.</i>	The design of the Proposed Development will integrate a range of measures aimed at minimizing emissions to air during both the design and construction phases. These measures include: • Energy efficient heating systems. • Enhanced ventilation systems. • Green infrastructure to mitigate pollution and improve air quality. • Low and zero carbon systems like ASHP. • Implementation of a Demolition and Construction Logistics Plan (DLP/CLP) and a Demolition and Construction Management Plan (DMP/CMP)

Improving Air Quality Measures		
Category	Item	Proposed Measures
Building ventilation	<i>The preference should be for buildings to be naturally ventilated wherever possible.</i>	The Proposed Development will prioritize natural ventilation, allowing occupants to open windows overnight due to the absence of noise concerns. All dwellings will be naturally ventilated wherever feasible through operable windows and trickle vents. In cases of overheating, Mechanical Extract Ventilation (MEV), along with a purge fan in all habitable spaces of the dwellings, will be utilized to ensure thermal comfort. This approach supports both emission reduction and the maintenance of indoor air quality.
	<i>Sealed fascia's with active ventilation or active air filtration should only be used in cases where other options are not available, for example in areas around AQMA's or areas that could suffer from excessive noise. Care must be taken in designing such systems that the thermal comfort of building users can be guaranteed, with consideration given to future climate scenarios. Note that this should not preclude mechanical extract systems in bathrooms and kitchens, and the Council would be supportive of the use of Mechanical Ventilation with Heat Recovery (MVHR) to supplement natural ventilation, where systems are correctly specified, installed and maintained.</i>	
Construction Phase		
Construction dust monitoring	<i>Monitoring will be requested on a site-by-site basis. In line with best practice guidance (see further guidance below).</i>	The Demolition and Construction Logistics Plan (DLP/CLP) and a Demolition and Construction Management Plan (DMP/CMP) will include measures to minimise dust. Dust monitoring will be conducted during the construction phase, adhering to best practice guidelines.
Construction vehicles	<i>Any diesel-powered machines used on, or otherwise serving the Site, must be run on ultra-low sulphur diesel (also known as ULSD 'cleaner diesel' or 'green diesel'). "Ultra-low sulphur diesel" means fuel meeting the specification within BS EN 590.</i>	During the construction phase, the development will adhere to the use of low-emission fuels and vehicles. This will be outlined in the DLP/CLP, DMP/CMP, which will include provisions such as: ·Requiring all diesel-powered machinery on-site to operate using ultra-low sulphur diesel (ULSD). Ensuring the maintenance and use of low-emission vehicles and equipment.

Improving Air Quality Measures		
Category	Item	Proposed Measures
Construction road layout	<i>Using design measures including speed restrictions and traffic management.</i>	The development will implement traffic management measures, including speed restrictions and optimized road layouts, to minimize emissions during the construction phase.
Construction Environmental Management Plan (CEMP)	<i>A CEMP will cover impacts to air quality mainly associated with dust and odour. The CEMP will also cover more general environmental health issues such as noise and light pollution.</i> <i>Site activities include plant emissions – measures could include switch-off policy, plant maintenance and alternative fuel use.</i>	The DLP/CLP, DMP/CMP will: • Detail all measures to reduce emissions during the construction phase. • Cover air quality impacts such as dust and odour management. • Address general environmental health issues, including noise and light pollution. • Include measures to control plant emissions such as a switch-off policy, regular plant maintenance, and the use of alternative fuels.

5.0 CONCLUSION

- 5.1 The Local Emission Strategy was developed to support the planning condition by reviewing relevant national and local planning policies and guidance, as well as the submitted planning application documents.
- 5.2 Identified mitigation measures aim to minimize the impact of transport and non-transport emissions on local air quality during both the construction and operational phases of the Proposed Development.
- 5.3 Proposed mitigation measures include:
- Installation of active electric vehicle charging points, with additional passive points.
 - Support for sustainable (i.e. walking, cycling) and low-emission public transport through the addition of a new pedestrian connections into the Site from Duck's Hill Road, which itself is an established bus route.
 - Implementation of a bespoke Travel Plan.
 - Installation of secure and covered cycle parking facilities, user trips by cycle will also be encouraged through the existing provision of shower facilities.
 - Incorporation of LZC technologies such as ASHP to reduce emissions.
 - Adoption of appropriate construction standards to limit emissions during construction and design phases.
 - Use of low-emission vehicles for construction activities.
 - Implementation of a DLP/CLP, DMP/CMP during construction.
- 5.4 The LES ensures the Proposed Development aligns with national and local air quality policies.

6.0 DISCLAIMER

- 6.1 Create Consulting Engineers Ltd disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report.
- 6.2 The copyright of this report is vested in Create Consulting Engineers Ltd and our Client, Denville Hall Development Ltd. The Client, or his appointed representatives, may copy the report for purposes in connection with the change of use described herein. It shall not be copied by any other party or used for any other purposes without the written consent of Create Consulting Engineers Ltd or Denville Hall Development Ltd.
- 6.3 Create Consulting Engineers Ltd accepts no responsibility whatsoever to other parties to whom this report, or any part thereof, is made known. Any such other parties rely upon the report at their own risk.

APPENDIX A

Travel Plan ref: AF/VL/P25-3695/01 Rev A
(including scheme plans)

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Revision A

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PLANS

Architect Layout Plans

1.0 INTRODUCTION

- 1.1 Create Consulting Engineers Ltd has been instructed by Denville Hall Development Limited to produce this "Travel Plan" (TP) to satisfy part of condition 8 set out in the grant of planning permission letter from London Borough of Hillingdon dated 24th November 2023.
- 1.2 Development description: Demolition of no. 48 and no. 60 Ducks Hill Road, garage and wooden storage unit and the erection of three new buildings comprising of 12 assisted-living units (Class C2), proposed ancillary communal space, including cafe and restaurant, external connecting link building, landscaping and external works.
- 1.3 Figure 1.1 below shows the Site wider site location, with a detailed redline boundary plan included at the Plans section at the back of this TS.



Figure 1.1: Site Location Plan

- 1.4 This TP has been prepared in accordance with current central and local government policies and best practices. It is created to inform all staff, residents and visitors of the travel options and facilities available to them within the Site and in the local area and make them aware and encourage them to take up more sustainable modes of travel for their journeys. There are a range of government policies and guidance documents on the requirements of travel plans which inform the process.
- 1.5 These include, but are not limited to:
 - National Planning Policy Framework (NPPF);
 - The London Plan; and
 - Transport for London Travel Plan Guidance.

- 1.6 The primary aim of the TP is to influence the travel behaviour of the staff, residents and visitors of the development through a range of measures aimed at reducing reliance on the private car, particularly for single occupancy trips. This document will be developed and updated prior to its formal implementation to ensure that all aspects meet with current standards required at the time.

2.0 TRANSPORT POLICY

National Guidance

- 2.1 National planning policy reflects and responds to growing concern over environmental issues and a greater public awareness of the problems associated with unrestrained car use. Current policies place a greater emphasis on increasing accessibility through sustainable modes such as walking, cycling and public transport.

National Planning Policy Framework (NPPF) 2026

- 2.2 The updated NPPF 2026 sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.
- 2.3 The NPPF 2024 requires that Sustainable transport should be considered from the earliest stages of plan-making, so that it is reflected in the vision for the plan area and its specific proposals, and forms an integral part of a plan's strategy for creating well-designed, sustainable, inclusive and popular places. This should be done by:
- a) Making sustainable transport considerations part of early engagement with local communities, highway and transport authorities, transport infrastructure providers, operators, land promoters and neighbouring councils. This is so that proposals reflect local views, evidence relating to accessibility, capacity and transport service provision, and take opportunities for prioritising and maximising sustainable movement across the area. Plans should align land use policies and allocations with wider strategies (such as Local Transport Plans, Local Cycling and Walking Infrastructure Plans and Rights of Way Improvement Plans) and investments in transport to ensure that the potential impacts of development on transport networks are understood and addressed;
 - b) Locating proposed development where it can support sustainable patterns of movement and make effective use of existing or proposed transport infrastructure, reflecting the principles in policy TR3. The Connectivity Tool (Connectivity Tool - GOV.UK) should be used to inform the assessment and selection of sites for development alongside other relevant quantitative or qualitative evidence;
 - c) Supporting an appropriate mix of uses across the plan area, and within strategic sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;
 - d) Identifying and protecting sites and routes which will widen transport choice and are essential to facilitate sustainable development, including networks for walking, wheeling and cycling, and public transport infrastructure; and
 - e) Providing for any transport facilities that need to be located in the area, or for their necessary expansion or adaptation, and the infrastructure and wider development required to support them. This includes uses such as ports, airports, lorry parking facilities, freight interchanges, public transport hubs, roadside services, electric vehicle charging and bus and rail depots. In doing so plan-makers should consider whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements, and the importance of maintaining a national network of aviation airfields.

- 2.4 It also requires that the planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.
- 2.5 Policy TR3: Locating development in sustainable locations, states:
- 2.6 So that development is located where it can support sustainable patterns of movement, enable good accessibility for different users and make the most of existing and proposed transport infrastructure, development proposals should reflect the following principles, taking into account the vision for the site, the type of development and its location:
- a) Development proposals which could generate a significant amount of movement, in the context of the area within which they would be situated, should be in locations that are sustainable (or which can be made so, taking into account planned improvements, including any provided for as part of the development itself). This means the location should limit the need to travel, particularly by private car, and offer a genuine choice of transport modes for residents and users, unless the nature of the development would make this impractical;
 - b) Opportunities should be taken to utilise existing or proposed transport infrastructure in optimising the amount or density of development which can be accommodated in 70 different locations, especially where this can support more walking, wheeling, cycling and public transport use;
 - c) Any significant adverse impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, should be mitigated to an acceptable degree using a vision-led approach;
 - d) The environmental impacts of traffic and transport infrastructure should be identified, assessed and taken into account – including taking opportunities to avoid or mitigate any adverse environmental effects, and to secure net environmental gains such as reductions in air pollution; and
 - e) In rural areas, opportunities to improve walking, wheeling, cycling and public transport and enhance the connectivity of an area should be taken where they exist and can be supported by the development proposed.
- 2.7 If setting local parking standards for residential and non-residential development, policies should take into account:
- a) The connectivity of development in different locations by different modes of transport, especially in terms of access to employment and day-to-day services;
 - b) Opportunities for improvements in walking, wheeling, cycling and public transport;
 - c) Local car ownership levels and travel trends, and opportunities to promote car sharing and other schemes which may reduce vehicle parking requirements;
 - d) Providing sufficient spaces for electric vehicle charging, blue badge holders, pedal and electric cycles and e-scooters, considering likely future demand and the need for associated infrastructure; and
 - e) The appropriateness of setting different standards for the type and mix of development, including to address specific business requirements where commercial standards are being set; and of using ranges where a degree of flexibility is desirable.

- 2.8 Development plans should set local parking standards for residential and non-residential development, across the plan area or for specific sites or sub-areas, in a way which aligns with the transport vision for the plan and opportunities to promote sustainable transport.
- 2.9 Maximum standards for car parking should be set where they will support efforts to encourage the use of sustainable transport modes and shared transport, optimise the density of development in well-connected locations, or where they are necessary for managing the local road network.
- 2.10 Policy TR6. Assessing Transport Impacts states:
- 2.11 Development proposals that are likely to generate significant amounts of movement should be supported by:
- a) A transport statement or transport assessment (depending on the extent and significance of the transport issues involved), which is proportionate to the nature and scale of the development, so that the likely impacts of the proposal for transport can be assessed and monitored; and
 - b) A travel plan, which indicates how sustainable transport objectives will be delivered, monitored and managed over time.
- 2.12 Transport assessments and statements, and travel plans, should reflect the transport vision for the development and the transport strategy for the area in which it is located, and how these are intended to be achieved (including, in the case of travel plans, identifying fallback options if initial measures do not deliver the expected outcomes).
- 2.13 In assessing movement patterns and potential impacts, including whether they are considered to be severe, reasonable future scenarios should be considered, taking into account impacts at relevant times of the day, potential cumulative impacts, multimodal trip generation and the promotion of sustainable modes of travel, and realising the transport vision for the development itself. Development proposals should be considered having regard to these potential impacts and the other policies in this Framework which are relevant (including TR3, TR4 and DP3(2)(d)).
- 2.14 Development proposals should be refused if they would have a severe adverse impact on the transport network (in terms of capacity and congestion, including cumulative impacts), or an unacceptable impact on highway safety; taking into account any mitigation measures proposed as well as any wider network improvements, including measures to support sustainable patterns of movement. This applies both during the construction phase and following completion.
- 2.15 Within this context, applications for development should:
- a) Give priority first to walking, wheeling and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating easy access to high quality public transport, with layouts and densities which maximise the catchments for bus or other public transport services;
 - b) Incorporate or contribute towards appropriate features to support this prioritisation, such as permeable street networks, continuous footways and segregated cycle facilities which are adequately lit, sufficient secure and accessible cycle parking, regularly spaced public seating and good quality waiting facilities for public transport;
 - c) Ensure that the arrangement of streets and other routes help to create places that are safe, inclusive and attractive for all users (particularly for women and girls, for other groups who

may be vulnerable to crime or the fear of crime, and for those with limited mobility). This includes reflecting relevant aspects of policy DP3(2), as well as employing measures to:

- i. Minimise the scope for conflict between pedestrians, cyclists and vehicles;
 - ii. Meet the needs of disabled people, older people and children in relation to all modes of transport, and
 - iii. Avoid unnecessary street clutter.
- d) Allow for the efficient delivery of goods, and ease of access by service and emergency vehicles, in ways which do not compromise key place-making principles (set out in policy DP3(2)); and
- e) Provide a suitable number of parking spaces for a range of transport modes where appropriate, reflecting the location and nature of the development (including its connectivity), any locally-set standards in the development plan, and including adequate provision of spaces and infrastructure that allow for the charging of electric vehicles in safe, accessible and convenient locations. A flexible approach to applying parking standards should be taken where the reconfiguration of retail or other sites which attract large numbers of customers would make better use of previously developed land, and there is evidence that a certain number of spaces needs to be retained to meet specific operational and commercial requirements.

2.16 With respect to transport issues, the proposed development is in accordance with the NPPF.

Other Relevant Guidance

2.17 Planning Practice Guidance supports the overarching NPPF and provides information on structuring a Transport Assessment in support of a proposed development. It requires that a robust assessment will establish evidence that may be useful in:

- Improving the sustainability of transport provision;
- Enhancing accessibility;
- Creating choice amongst different modes of transport;
- Improving health and well-being;
- Supporting economic vitality;
- Improving public understanding of the transport implications of development;
- Enabling other highway and transport authorities/service providers to support and deliver the transport infrastructure that conforms to the Local Plan;
- Supporting local shops and the high street.

2.18 And that the key issues, which should be considered in developing a transport evidence base, include the need to:

- Assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms;
- Assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport;
- Highlight and promote opportunities to reduce the need for travel where appropriate;
- Identify opportunities to prioritise the use of alternative modes in both existing and new development locations, if appropriate;

- Consider the cumulative impacts of existing and proposed developments on transport networks;
- Assess the quality and capacity of transport infrastructure and its ability to meet the forecast demands in trip generation;
- Identify short, medium and long-term transport proposals across all modes.

Local Policies

The London Plan 2021

2.19 The London Plan para 10.4.3 states:

"It is important that development proposals reduce the negative impact of development on the transport network and reduce potentially harmful public health impacts. The biggest transport related impact of development on public health in London is the extent to which it enables physical activity from walking, cycling and using public transport. The other main impacts on public health relate to air quality, road danger, noise, and severance. The phasing of development, and the use of travel plans and freight strategies, may help reduce negative impacts and bring about positive outcomes. Where adverse transport impacts have been identified from development proposals, mitigation will be sought in the form of financial contributions – to improve network service levels for example – or through directly providing infrastructure such as additional bus stops and street improvements."

2.20 Policy T4 Assessing and mitigating transport impacts states:

- a) Development Plans and development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity.*
- b) When required in accordance with national or local guidance,¹⁷⁹ transport assessments/statements should be submitted with development proposals to ensure that impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed. Transport assessments should focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development. Travel Plans, Parking Design and Management Plans, Construction Logistics Plans and Delivery and Servicing Plans will be required having regard to Transport for London guidance.*
- c) Where appropriate, mitigation, either through direct provision of public transport, walking and cycling facilities and highways improvements or through financial contributions, will be required to address adverse transport impacts that are identified.*
- d) Where the ability to absorb increased travel demand through active travel modes has been exhausted, existing public transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans and funding exist for an increase in capacity to cater for the increased demand, planning permission will be contingent on the provision of necessary public transport and active travel infrastructure.*
- e) The cumulative impacts of development on public transport and the road network capacity including walking and cycling, as well as associated effects on public health, should be taken into account and mitigated.*
- f) Development proposals should not increase road danger.*

Section Summary

- 2.21 Considering the proposed development, and having reviewed the aforementioned transport-related policies, it can be said that on transport and highways-related issues, the scheme reported on in this TP adheres to the national and local planning requirements given by the appropriate authorities.

3.0 EXISTING SITUATION

- 3.1 The site is located on the west side of Ducks Hill Road and approximately 35m north of the junction of Northgate and Ducks Hill Road. Denville Hall is a retirement home and specialist dementia wing for retired actors and theatrical professionals. There are 2 accesses to Ducks Hill Road. The main access leads to the front of the primary buildings and parking/delivery areas. The secondary access leads to a former house (No.48) that was divided into 6 flats (flats 1 – 6, 48 Ducks Hill Road) that were separate from the main Denville Hall.
- 3.2 Ducks Hill Road is classified as the A4180 and is an important distributor road that links Northwood and Ruislip. In the vicinity of the site it is a wide single carriageway which is subject to a 30mph speed limit. Ducks Hill Road is on a curved horizontal alignment with a gradual gradient down to the south. Frontage access is prevalent. The centreline of the carriageway is denoted by a solid white line which affects southbound traffic to the north of the site and northbound traffic to the south of the site. This is due to the limited forward visibility created by the curved alignment of the carriageway.
- 3.3 The site has a PTAL rating of 1b which is “poor”, see Figure 3.1 below.

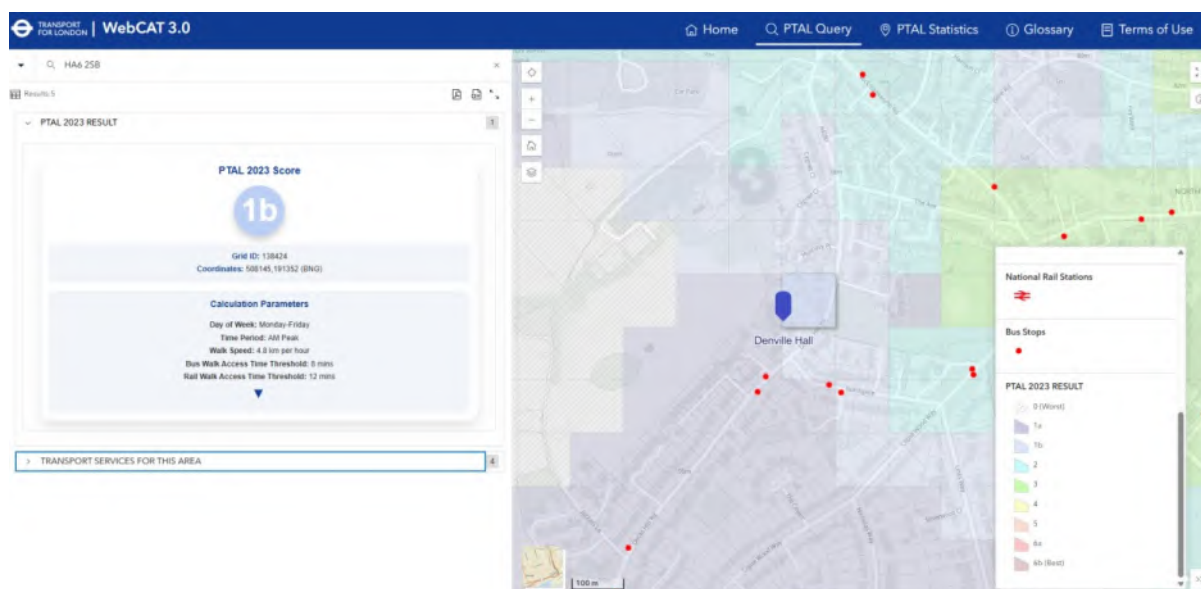


Figure 3.1: PTAL Rating

- 3.4 However, bus stops for route 331 are within 85m of the site frontage and this route provides 3 buses per hour in the peak morning period. The proximity and frequency of the service provides an attractive and convenient alternative to travelling by car for visitors and staff. Northwood underground station (Metropolitan line) is a 975m walk distance from the site. Whilst this is outside of the PTAL catchment distance it equates to a 12 minute walking time and is within the “acceptable” walking distance of 1000m recommended by the Chartered Institute of Transport in its publication “Guidelines for Providing Journeys on Foot”.

Walking Infrastructure

- 3.5 Continuous street lit footways are present on both sides of Duck’s Hill Road adjacent to the Site and throughout the surrounding road network.

- 3.6 Northwood underground station (Metropolitan line) is a 975m walk distance from the site. Whilst this is outside of the PTAL catchment distance it equates to a 12 minute walking time and is within the “acceptable” walking distance of 1000m recommended by the Chartered Institute of Transport in its publication *“Guidelines for Providing Journeys on Foot”*.
- 3.7 The Site benefits from existing pedestrian infrastructure. Figure 3.2 below shows walking isochrones from the Site for a 20 minute walking time with 5 minute intervals:

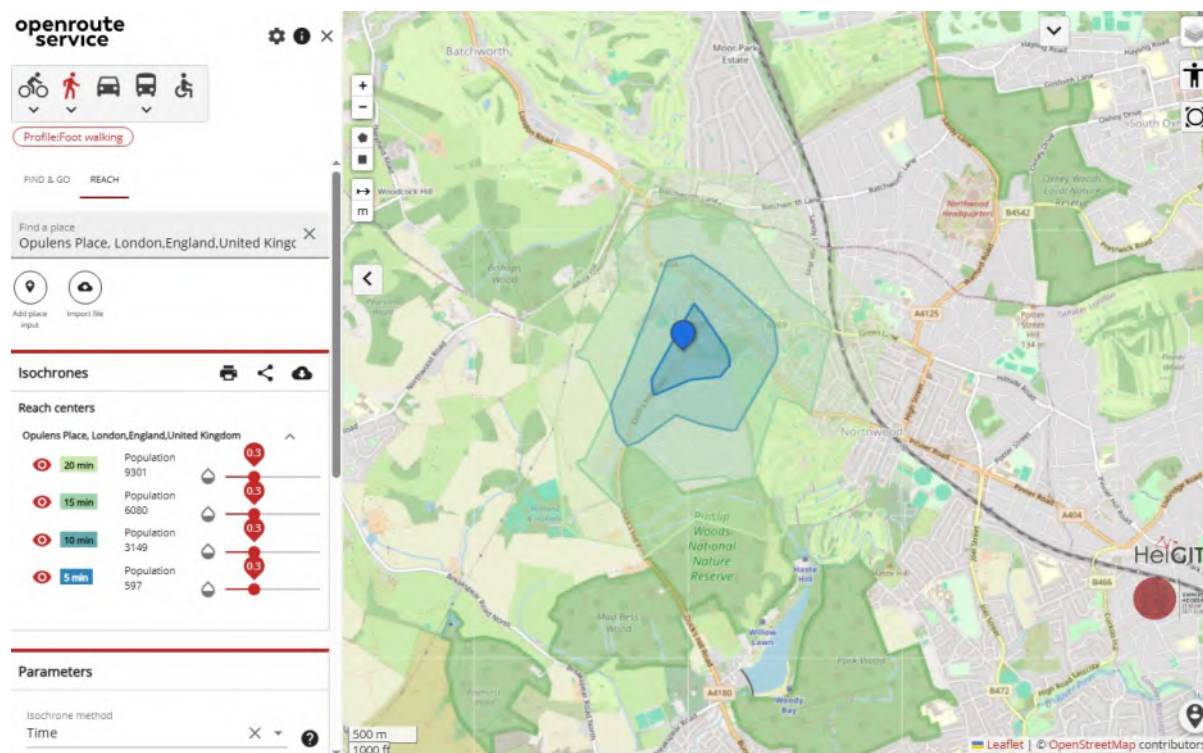


Figure 3.2: Walking Isochrones (source: <https://maps.openrouteservice.org/>)

- 3.8 Figure 3.2 demonstrates the residential estates to the north, south and west of the Site are largely accessible within a readily accessible walking distance from the Site.

Cycling Infrastructure

- 3.9 There is a lack of dedicated cycling facilities such as cycle lanes or footway/cycleways provided in the vicinity of the Site. With on street cycling required to access the Site.
- 3.10 Figure 3.3 below shows cycling isochrones from the Site for a 20 minute cycle time with 5 minute intervals:

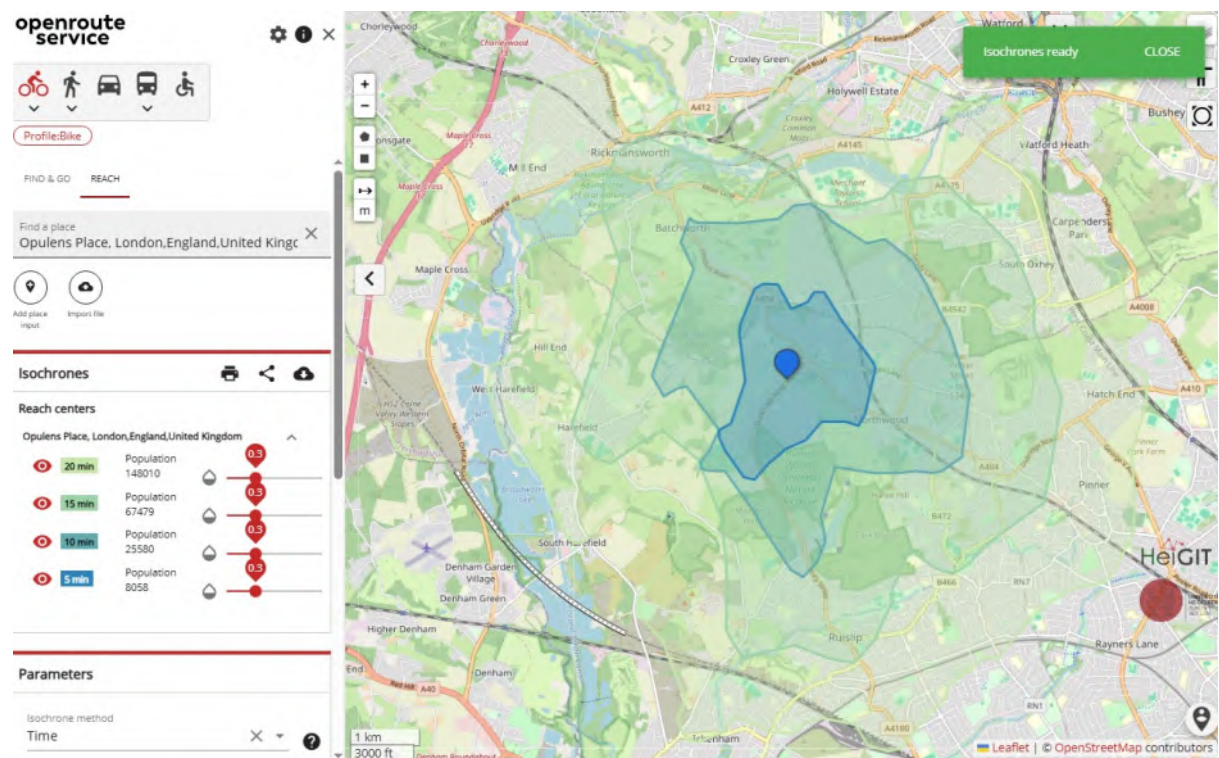


Figure 3.3: Cycling Isochrones (Source: <https://maps.openrouteservice.org/>)

- 3.11 Figure 3.2 demonstrates the majority of Northwood is within readily achievable cycling distance from the Site for keen cyclists.

Current Activity at Existing Site

- 3.12 There are currently five buildings spread across the site. The 16th century locally listed building (partially rebuilt in 1851) with the modern 2000's extension to the north which houses the retirement home and specialist dementia wing for professional actors and theatrical professions.
- 3.13 The subsequent four more buildings onsite, one outbuilding next to the main (marked as Building C), a derelict old garage (Building D), a disused building divided into flats (Building B) and a single storey mid-century disused bungalow (Building A). The rest of the site is covered mostly by soft landscaping with a large carpark by the main building covered with tarmac and the main access tarmac route.
- 3.14 Buildings A, B and D are all currently not in use. Building C is an outbuilding and does not currently generate/attract specific trips.

4.0 PROPOSED DEVELOPMENT & TRAVEL DEMAND

- 4.1 The proposed development comprises the demolition of no. 48 and no. 60 Ducks Hill Road and derelict garage and the erection of 12 assisted living units (Class C2) in two separate buildings (Buildings A and B) and proposed ancillary communal space, including café and restaurant (Building C) accessed through connecting link building. Proposals to include new comprehensive landscaping proposals. The main access to Ducks Hill Road will be relocated as will parking areas within the site.

Proposed Trip Generation

- 4.2 The existing staff follow strict shift patterns with housekeeping staff and kitchen staff starting at 7am, the Nurses starting at 7.45am and Carers at 8am.
- 4.3 Housekeepers finish at 3pm, kitchen staff either finish at 3pm or 7pm. The Nurses finish at 8.15pm and Carers 8pm.
- 4.4 The proposed car park that will be served by the secondary access road is intended for use by staff only. On average, around 12 staff drive to work for the morning shift and arrive by 07:45 and 4 staff drive on the night shift leaving after 08:00. As such, there is a very low risk of staff cars meeting along the access road, but in the event that they do, there are opportunities to pass along the route where there are localised areas where the width increases to 4.9m. In terms of traffic volumes, if all of the daytime staff arrived by car (as opposed to walking, cycling, carsharing) then the peak 2-way flow would equate to up to 16 car movements between, 07:30 and 08:00. This is an average of one car movement every 4 minutes.
- 4.5 This level of traffic activity will not result in a “severe” impact as required by paragraph 111 of the NPPF. The baseline against which the proposed use of the access must be assessed is the historic use of the access to serve 6 flats. As such, whilst there is potential for the proposed use to increase traffic activity the increase will be marginal.
- 4.6 This Travel Plan looks to reduce the proposed development vehicle trip generation further by encouraging the use of sustainable modes of transport as well as car sharing between staff members.

5.0 TRAVEL PLAN IMPLEMENTATION

- 5.1 Using this Travel Plan as a framework, a Travel Plan Coordinator (TPC) will be appointed. The TPC will regularly review the TP, and if necessary explore the potential for a variation or new measures to achieve the TP and promoting a sustainable travel culture for the development that encourages the uptake of more sustainable modes of travel.
- 5.2 It is essential that certain measures are implemented early in the development such that employees, residents and visitors are kept informed of their options and have the opportunity to contribute positively towards the aims of the TP.
- 5.3 Measures of the TP will include:
- The appointment of a TPC to oversee all aspects of the TP;
 - Consulting with management and staff on a regular basis;
 - Provision of a Travel Information Pack to be made available to all employees, residents and regular visitors, this will include relevant travel information such as public transport information and local route maps;
 - The use of newsletters within the proposed development to provide updated information on more sustainable transport options.
- 5.4 Once appointed the contact details of the TPC will be provided to the Local Authority, to ensure that there is clear dialogue from the outset of the TP.
- 5.5 The TPC role and TP will be funded by the Developer from commencement of the TP. Due to the scale of proposed development the TPC responsibilities will be limited to the start up phase to ensure travel planning materials are circulated at first occupation. Due to the low levels of estimated trips it is not deemed necessary to include for follow up surveying and monitoring.

Induction Session and Travel Information Packs

- 5.6 All users will be introduced to the aims and objectives of the 'overarching' Travel Plan. An Induction Session and an Induction Pack will be made available to all users. The same pack will be available on the noticeboards located at convenient points around the Site. All sustainable modes of travel will be promoted, in particular active travel modes and car sharing. The site is committed to promoting a healthy lifestyle for all its attendees, and for this reason active travel will be promoted very strongly. It will be practical that any greater distances travelled, car sharing and greener driving will be encouraged. This shows the commitment of the site to also cutting carbon emissions.
- 5.7 The induction session will go through; the aims and objectives of the Travel Plan, easy to use guides to using sustainable journey planners, other information. A full list of what will be in the Induction Pack is provided. suffice to say it will cover all sustainable forms of travel (including instructions for using SMS text to identify when the next bus is arriving at a particular site).
- 5.8 Each new staff member and resident (additional copies can be provided to residents with multiple regular visitors) will be provided with a Travel Information Pack. This will include references to the TP and introduce the TPC explaining the aims and objectives of what is being put forward whilst also outlining the clients responsibilities.

- 5.9 Travel Information Packs are intended to give a “kick start” to influence staff, resident and visitor travel habits from the outset. The TPC will work together with staff, residents and visitors in supporting the modes which have the greatest effect on travel and investigate the scope for further funding where it is most likely to have a tangible effect.
- 5.10 The Travel Information Packs will contain:
- A map of the development in relation to the surrounding area, i.e. shops, schools, health and leisure facilities;
 - A plan showing walking routes in the local area;
 - A plan showing cycle routes in the area;
 - Promotional information for local cycle shop(s);
 - Public transport timetable information for local bus and train services (contact details for train and bus operators and season ticket details will also be provided);
 - Information on local car-sharing initiatives;
 - Local taxi and hire car companies information;
 - TPC contact details;
 - A list of useful web-site links for public transport, cycling and walking.

Information Boards

- 5.11 Information will be provided for inclusion on information boards placed at strategic places or well used locations in the development. These boards may contain the base information promoting information on all modes servicing the Site (e.g. walking, cycling and public transport).

Promote Public Transport

- 5.12 The TPC will promote the use of the existing bus services with material such as the Travel Information Packs and notice boards.
- 5.13 Leaflets to be included on the notice board include:
- ‘City Bus Map’
 - ‘Bus timetables for routes to site’
 - ‘Publicly available bus discounts’
 - ‘When’s the next bus?’
 - Local network bus map
- 5.14 The site will promote NextBuses.mobi which will allow any user to log-on to www.nextbuses.mobi, (which after entering: the postcode, a street name and town or a bus stop code), will confirm when the next buses will be at a specific bus stop.
- 5.15 If the user cannot get mobile internet on a phone, the bus stop code can be texted to 84268 and a text will be received with the next buses to the stop.
- 5.16 The ‘www.travelinesoutheast.org.uk’ website will be provided as part of the ‘How to get to the site’ webpage, and will be available to all users (a phone number will also be provided). This will confirm all the suitable bus services to the site once the site address and the address of the staff/visitor is matched in. The webpage allows all the bus stops to be seen near to the postcode address or near to the destination, as well as, giving accurate details of bus times/expected times/last bus times etc.

The route planner is very straight-forward to use, however, the TPC has completed an easy to use guide so that all users are aware of how to use the website to find a bus match.

- 5.17 The easy to use guide will be available in the Travel Information Pack and on the notice board/s.
- 5.18 An Induction session will be set up for staff where the Travel Plan Coordinator will go through the aims and objectives of the Travel Plan. The TPC will go through all the initiatives and identify where the notice boards/bus information etc. are on the site. The TPC will also go through the bus ready reference for the bus route planner so that all staff will have an understanding of how to use the site. Staff will also be given an Induction Pack which will have a selection of information to supplement sustainable travel options to staff.
- 5.19 The following are some of the measures which will supplement the mentioned public transport measures:
- The provision of up to date bus timetables on notice boards and in Travel Plan Induction Packs/on the notice board;
 - Investigating the potential for obtaining discounted fares or assistance with the purchase of season tickets for staff; and
 - Advertise any promotions/discounts offered by public transport operators via the noticeboard
- 5.20 All the details mentioned will be available on the notice board and via Travel Information Pack/Induction Session. All users will have access to these.

Promote Walking

- 5.21 Information on recommended walking routes between the Site and local destinations will be made available to the staff, residents and visitors by the TPC as part of the Travel Information Pack. Walking route information could also be highlighted on notice board(s) fixed at strategic points within the proposed development.
- 5.22 An Induction session will be set up for staff for the Travel Plan Coordinator to go through the aims and objectives of the Travel Plan. The TPC will go through all the initiatives and identify where the notice boards/cycle spaces. are on the site. The TPC will set up and go through the walking ready reference for the walking route planner so that all staff will have an understanding of how to use the site.

Promote Cycling

- 5.23 Secure cycle parking is provided in accordance with Highway Authority requirements and the development scheme layout plans, located at convenient points within the Site.
- 5.24 The TPC will also seek to obtain preferential rates for new cycle purchases, servicing and cycle repairs at local cycle shops.
- 5.25 The TPC will promoting events such as National Bike Week and European Mobility Week to encourage staff to take up more sustainable commuting habits.
- 5.26 User trips by cycle will also be encouraged through the existing provision of shower facilities, together with secure cycle parking. Lockers will also be provided so that attendees can store any change of

clothes and/or other equipment. In addition to enable this, the following measures will be implemented to encourage staff to walk and cycle to the site:

- Staff showers facilities
- Display the Bike map and a plan of local cycle routes on the notice board;
- Promote the health benefits of active travel including walking and cycling; and
- Provision of a lift home by car/taxi in the event of an emergency.

- 5.27 The 'cyclestreets' website portal will be promoted on the summary on the notice board, which will allow any user to plot on road/off road journeys to the site. It will draw up the carbon savings, gradient of route, quickest route etc. The route planner is very straight-forward to use. This will be covered during the Induction Session.
- 5.28 An Induction session will be set up for staff where the Travel Plan Coordinator will go through the aims and objectives of the Travel Plan. The TPC will go through all the initiatives and identify where the notice boards/cycle spaces/lockers/showers etc are on the site. The TPC will also go through the cycle ready reference for the cycle route planner, so that all users will have an understanding of how to use the site.
- 5.29 All the details mentioned will be available on the notice board via Induction Packs/Induction Sessions. All users will have access to these. The site will look at setting up a case study of regular cycle users to the site to highlight the ease and time of making a cycle journey, the amount of money saved undertaking a cycle journey. This will aid in promoting the benefits of using a cycle.

Electric Car Charging & Car Share

- 5.30 An electric car charging point(s) will be incorporated provided on site.
- 5.31 The TPC will encourage the client to set up a car share scheme for staff to maximise the potential for lift sharing amongst commuters.
- 5.32 A leaflet and a poster will be produced, which highlights the cost benefits of car sharing. The leaflet also highlights a car sharing calculator which calculates the cost benefits of car sharing.
- 5.33 References to the car share cost calculator will be on the notice board/Induction Pack/Induction Session for all users to calculate savings by car sharing. The Induction Session will also highlight fascinating facts regarding car sharing and most importantly will highlight to staff how to use the car share calculator(https://www.liftshare.com/content/savings_calculator.asp), which through a quick demonstration will allow users to calculate car-share and single occupancy equivalent costs. The Induction Pack also consists of car share posters emphasising the benefits compared to single occupancy vehicle usage. These will also be put on the notice board.

Publicity

- 5.34 A key to the success of the TP will be positive publicity. The TPC will therefore, take advantage of every opportunity to publicise the TP and its successes.
- 5.35 Upon induction/arrival, each new employee/resident will have been made aware of the TP through induction literature and will have access to the Travel Information Packs.

5.36 To publicise alternative modes of transport to employees/residents the following online tools will be shared:

- Details of walking websites – for example, www.livingstreets.org.uk and www.gojauntly.com
- Details of cycling websites – for example, www.sustrans.org.uk and www.lovetoride.net
- Provision of journey planning websites, for example:
 - www.traveline.info
 - www.nationalrail.co.uk

6.0 MARKETING AND PROMOTION

- 6.1 An ongoing marketing campaign undertaken by the TPC will be aimed at maintaining full commitment from staff and students to promote successes and contribute to a sense of achievement and increased understanding and support.
- 6.2 Travel Information Packs will be made available to all staff, residents and regular visitors upon the first occupation. The packs will provide staff and residents with relevant public transport information (such as maps, routes, timetables, fares etc.) and include walking and cycling maps and information about access to various services and facilities in the local area.
- 6.3 A site-specific travel guide will be produced and made available to all staff and residents within the Travel Information Packs. The travel guide will provide public transport information and instructions on how to obtain personalised journey information via various journey planning web-site applications. The guide will also explain the health and environmental benefits of sustainable travel choices.
- 6.4 Additional transport information will be provided at prominent notice board locations, accessible to staff, students and visitors.

7.0 TARGETS MONITORING AND REVIEW

- 7.1 For schemes that present a more substantial traffic generation it is required for a Travel Plan to set out specific actions to be monitored, with an action plan must have a measurable output.
- 7.2 However, the proposed development requires limited staffing numbers of approximately 12 day time and 4 night time shift workers. With residents not expected to make significant daily trips with trip generation limited to occasional visitors and doctor/hospital appointments.
- 7.3 It is therefore deemed proportionate for this development to implement the travel planning methods stated above but exclude ongoing monitoring and surveys on the basis the sample size would be too small to provide meaningful results.

8.0 TRAVEL PLAN COMMITMENT

- 8.1 The TPC role and TP will be funded directly by the Developer from commencement of the TP and until the completion of the 'year 5' monitoring surveys.

Travel Plan Contacts

- 8.2 The following persons are responsible for the TP. All travel plan-related queries should be addressed to the TPC in the first instance. These details will be completed and/or confirmed prior to the implementation of the TP.

TRAVEL PLAN COORDINATOR

Name – TBC

Address – TBC

Tel: TBC

Email: TBC

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PLANS



This drawing shall be read in conjunction with all other drawings forming part of the contract including architectural, structural and other services installation drawings, with the relevant specifications and technical schedules forming part of the contract. **DO NOT SCALE** this drawing and verify all dimensions on site and report any discrepancies to the project architect. This drawing is issued confidentially and must not be disclosed to any third parties without the prior written consent of Kalli-architecture and design ltd.

Scale Bar 0 5 10 15 20 25 M

GENERAL NOTE / SCOPE:
Proposed details are specified by design intent and performance and therefore designated as works with Contractor's Design (CD).
TO BE READ IN CONJUNCTION WITH:
KALLI- ARCHITECTURAL SCHEDULES
KALLI- ARCHITECTURAL FINISHES DRAWINGS
KALLI- NBS SPECIFICATION
LGD LANDSCAPE DESIGN
CBG MECHANICAL & ELECTRICAL DRAWINGS & SPECIFICATIONS
LSL STRUCTURAL DRAWINGS & SPECIFICATIONS
STROMA ACOUSTIC REPORT
NDY FIRE STRATEGY REPORT

A: 05/12/2023 STAGE 3 ISSUE
No.: Date Revision Notes
Project Title
DENVILLE HALL
Project Client
DENVILLE HALL 2012 LTD
Design Firm
Kalli-architecture & design ltd
www.kalli-a-d.co.uk info@kalli-a-d.co.uk
Project Architect: Project ID
MK 1918
Drawn By Scale
1:250@A1
Reviewed By Sheet No.
1918 S3-MP-R.1
of 11
Date Sheet Title
Stage3_Proposed Master Roof Pl.

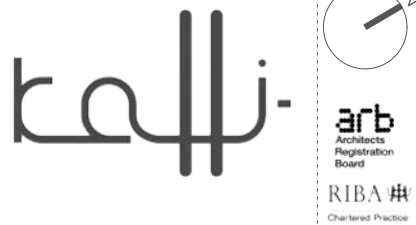
kalli-
Architecture
Registration
Number
RIBA

arb
Architects
Registration
Board
RIBA

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No.	Date	Revision Notes
Project Title		
DENVILLE HALL		
Project Client		
DENVILLE HALL 2012 LTD		
Design Firm		
Kalli- architecture & design ltd		
www.kalli-a-d.co.uk info@kalli-a-d.co.uk		
Project Architect	Project ID	
MK	1918	
Drawn By	Scale	
	1:500	
Reviewed By	Sheet No.	
	P_GA (-2) 101.1	
	of 66	
Date	Sheet Title	
	Master Plan Existing @ A3	



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Scale Bar

0m10m20m30m

Key

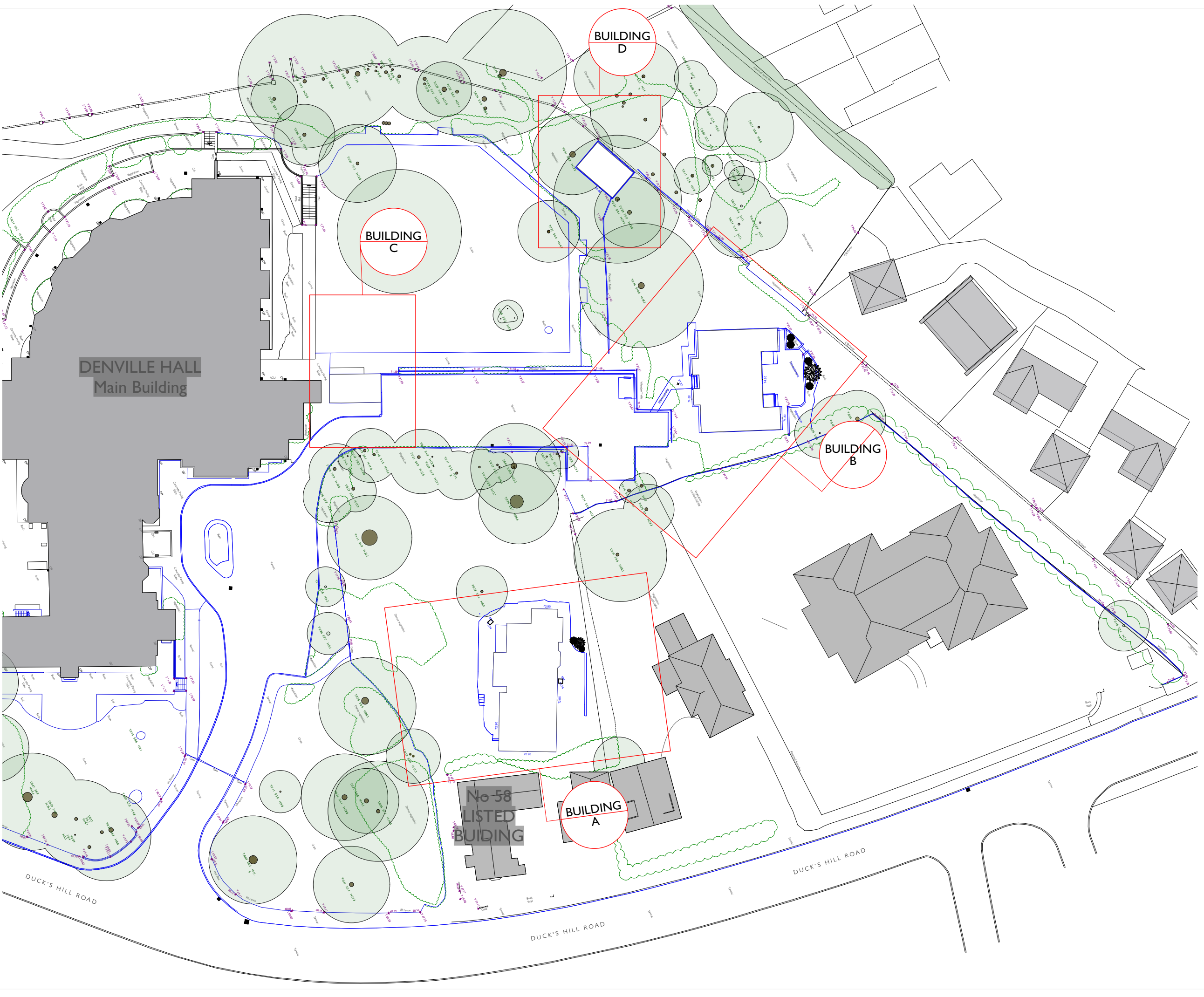
Demolition

Demolition

No.	Date	Revision Notes
Project Title		
DENVILLE HALL		
Project Client		
DENVILLE HALL 2012 LTD		
Design Firm		
Kalli- architecture & design ltd		
www.kalli-a-d.co.uk info@kalli-a-d.co.uk		
Project Architect	Project ID	
MK	1918	
Drawn By	Scale	
	1:500	
Reviewed By	Sheet No.	
	P_GA (-2) 101.2	
	of 66	
Date	Sheet Title	
	Master Plan Showing Dem @A3	

kalli-

arbArchitectsRegistrationBoardRIBAChartered Practice





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Scale Bar

0m

10m

20m

30m

40m

50m

Key

Site boundary

No.	Date	Revision Notes
Project Title		
DENVILLE HALL		
Project Client		
DENVILLE HALL 2012 LTD		
Design Firm		
Kalli- architecture & design ltd		
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Project Architect	Project ID	
MK	1918	
Drawn By	Scale	
	1:1000	
Reviewed By	Sheet No.	
	P_GA (-2) 101.3	
	of 66	
Date	Sheet Title	
	OS Plan @ 1:1000 @ A3	

Architects
Registration
Board

Chartered Practice

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Key

Site boundary

Scale Bar



No.	Date	Revision Notes
Project Title		
DENVILLE HALL		
Project Client		
DENVILLE HALL 2012 LTD		
Design Firm		
Kalli- architecture & design ltd		
www.kalli-a-d.co.uk info@kalli-a-d.co.uk		
Project Architect	Project ID	
MK	1918	
Drawn By	Scale	
	1:1250	
Reviewed By	Sheet No.	
	GA (-2) 101.3	
	of 67	
Date	Sheet Title	
	Location Plan @ 1:1250 @ A3	

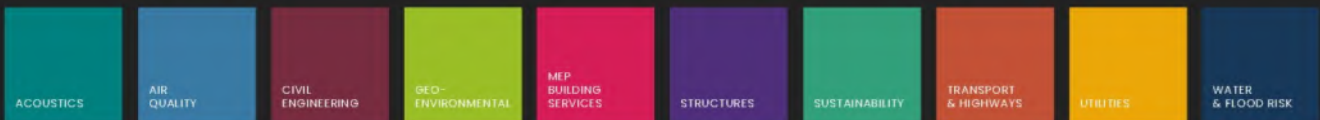
RIBA
Chartered Practice

Denville Hall Development Limited

DENVILLE HALL, NORTHWOOD

Travel Plan

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Low Emission Strategy

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