Sustainability and Energy Statement

Dawley Road, Hayes

July 2022

Contents

Client

Prologis UK Ltd

Turley Reference

PROZ3023

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1. Introduction

1.1 Introduction

This Sustainability and Energy Statement has been prepared by Turley Sustainability on behalf of Prologis UK Ltd ('the Applicant'). It supports a detailed planning application to the London Borough of Hillingdon in relation to the demolition of an existing building and development of a service yard at Prologis Park Dawley Road.

1.2 The Development

The proposed development is to include the redevelopment of the existing building for B8 use within a unit of approximately 2,365m^2. Along with the new buildings, there will be associated hardstanding areas consisting of parking areas and service yards for the units.

Previously, the site consisted of a research facility with associated hardstanding and parking areas. The existing buildings on site have been demolished, with the stockpiled material retained for future use.

Prologis is a long-term owner of the buildings it develops, and this model enables the inclusion of services such as on-site security, green travel plans, a maintained environment and a working community.

1.2.1 Application Site

The current site is comprised of two buildings, linked by a single storey glaze corridor which was occupied by Electric and Musical Industries (referred to as 'EMI' hereafter) as an archive warehouse, with associated yard and vehicular parking. The existing floor area is circa 2,888m^2, and the proposed floor area will be 2,629m^2.

The site is located in the London Borough of Hillingdon, strategically located north of Heathrow Airport. The site adjoins Dawley Road (A437) and is bounded by the Grand Union Canal to the north, industrial/ commercial units to the east and south, and Vinyl Place to the West.

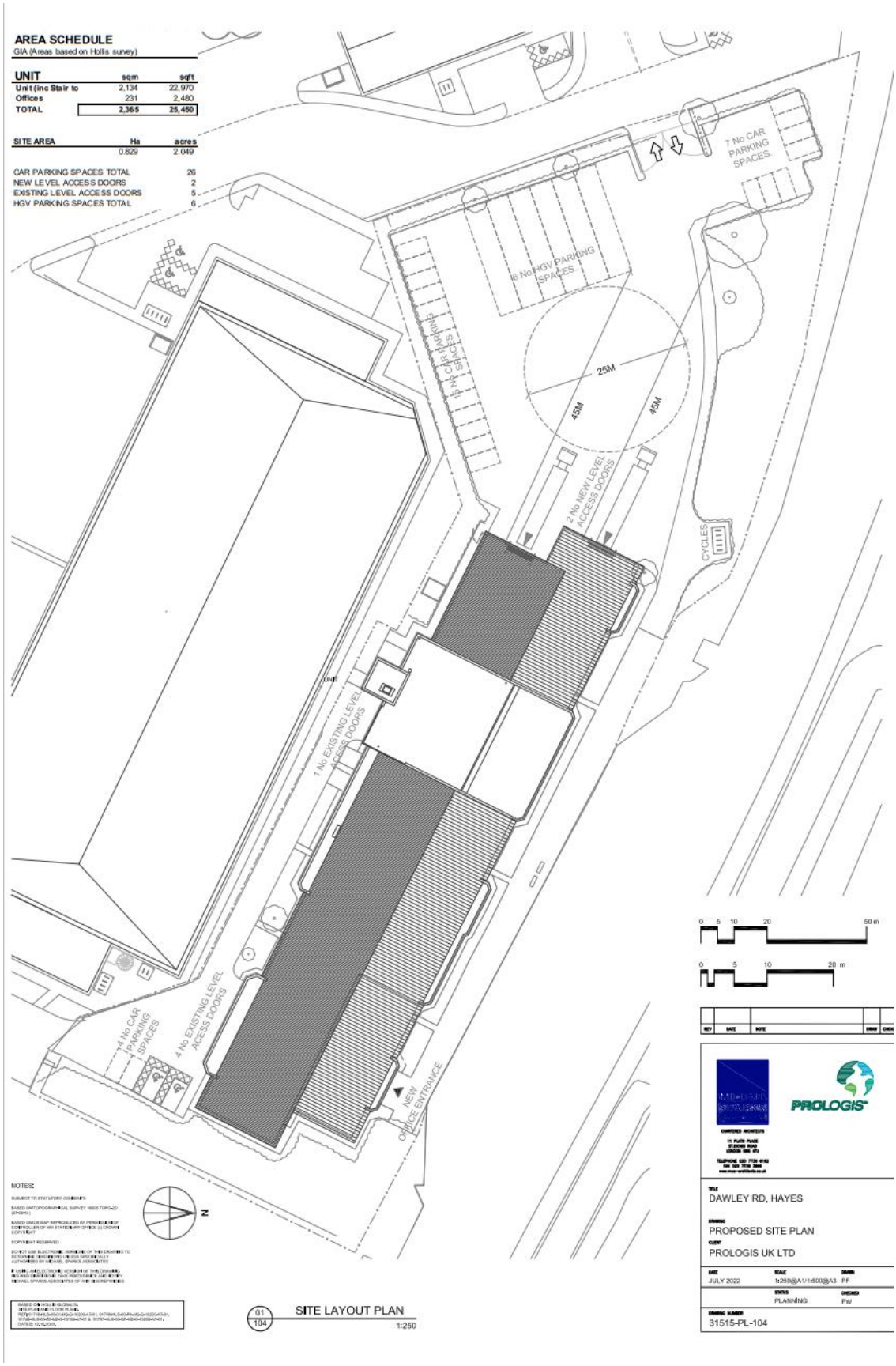
1.2.2 Description of Proposed Development

Prologis UK Ltd ('Prologis') is submitting a detailed planning application for a minor development comprising the following:

'Demolition of the single storey building and glazed link, in connection with the formation of a service yard and alterations to the warehouse building, including the insertion of loading bays and formation of parking for HGV's and cars'

Figure 1 (overleaf) shows the site plan of the proposed development.

Figure 1: Proposed Site Plan (Source: Prologis)



Full details of the development proposals are provided by the **Design & Access Statement** and **Planning Statement** which accompany the planning application.

1.3 Document Structure

Chapter 2 of this Statement sets out the planning policy context for the proposals in relation to sustainable development at the national and local policy level, in accordance with the Hillingdon Local Plan for a minor development.

Chapter 3 reports the approach Prologis takes to sustainable development at the corporate level and to which the development proposals also respond. The various sustainability measures that are proposed during construction and operation of the proposed development are discussed in **Chapter 4**. A summary of key sustainability performance and how this accords with planning policy is provided in **Chapter 5**.

This Sustainability and Energy Statement should be read in conjunction with other documents submitted in support of the planning application, particularly the Planning Statement, and Design & Access Statement.

2. Policy Context

2.1 Introduction

This Chapter summarises the key planning policy context and related guidance for the Proposed Development in relation to sustainability, energy and climate change at the national level. For full details, please refer to the Planning Statement that accompanies the application.

2.2 National Policy

This section sets out a summary of current national guidance and policy in relation to sustainable development.

2.2.1 National Planning Policy Framework

National Planning Policy Framework

The National Planning Policy Framework[1] (NPPF) provides a framework for the development of locally-prepared plans and the government's planning policies for England and how these are expected to be applied.

Paragraph 7 of the NPPF states that: 'the purpose of the planning system is to contribute to the achievement of sustainable development'.

It states clearly that in order to deliver sustainable development, the planning system must perform three distinct objectives, aligned to the three pillars of sustainability, which must not be taken in isolation and should be pursued jointly:

An **economic** objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.

A **social** objective supporting strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

An **environmental** objective contributing to protecting and enhancing our natural, built and historic environment; including, making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

These objectives are key to the development of plans and the NPPF sets out a number of key themes for consideration which guide the preparation of local plans and policies, ensuring the delivery of sustainable development.

The July 2021 update to the NPPF recognises the role planning has to play in support of the UK's pursuit of the United Nations Sustainable Development Goals (UNSDGs) which address social progress, economic wellbeing and

[1] UK Government | NPPF

environmental protection[2]. Example UNSDGs are presented in **Figure 2**.

Figure 2: Example UN SDGs

2.2.2 Planning Practice Guidance

Planning Practice Guidance (PPG) provides further advice on various planning issues associated with development, including those linked to sustainability and renewable energy and underpins the policies within the NPPF.

PPG is a material consideration in planning decisions and should generally be followed unless there are clear reasons not to. It sets out how local authorities should include polices that protect the local environment and strategies to mitigate and adapt to climate change and supports developments that are functional and adaptable for the future.

The March 2019 PPG update confirmed that Local Authorities have the option to set technical requirements exceeding the minimum requirements of the Building Regulations in respect of access, water and space where sufficient evidence is produced to justify the target.

2.2.3 National Design Guide

The National Design Guide published in October 2019 and is based on the national planning policy practice guidance and objective for good design as set out in the NPPF. The Guide introduces ten characteristics of well-designed places which work together to create developments Character and Community, while positively addressing environmental issues affecting climate.

2.2.4 Building Regulations

Whilst not planning policy, the Building Regulations (and specifically Approved Document Part L: Conservation of Fuel and Power) set out the requirements for energy and carbon performance in new buildings.

Periodic updates to these national regulations will drive energy efficiency and carbon reduction improvements. Government has stated that developers will continue to have flexibility in how they meet carbon reduction targets; but that the emphasis is on using a “fabric first” approach.

On 15th June 2022, the Building Regulations were updated as an interim step towards part of the roadmap to the ‘full’ Future Homes and Buildings Standard, which comes into effect in 2025. The regulations aim to deliver buildings that are of a higher quality, with lower energy bills and reduce GHG emissions by around 30% for new homes and 27% for non-domestic buildings.

Please note, there is a transition period of one year from this date; this will allow any new building, where the building has been registered or plans have been submitted before 15th June, one year to make a meaningful start and be

[2] UN Sustainable Development Goals

allowed to comply with the previous regulations. These transitions apply at a plot level, not at a site level. Please note this proposed development has been registered as a minor development with Hillingdon Borough Council on the 24th June 2022. For official confirmation from the Building Control body, please see **Appendix 2**.

In addition, the UK government has now updated the Building Regulations with a new Approved Document, Part O: Overheating. As of 15th June 2022, this standard is now in place.

Part O sets out new requirements for mitigating overheating, specifying that residential developments must limit unwanted solar gains in the summer and provide means to remove heat. Compliance with Part O can be demonstrated using two methods to demonstrate the risk of overheating from rising summer temperatures has been mitigated:

- Following a simplified prescribed glazing and free area ratio; or,
- Use of a Dynamic Simulation Modelling.

New approved document Part S, also adopted in June 2022, sets out guidance for electric vehicle (EV) charging infrastructure and specifies that for non-residential car parks with more than 10 spaces, at least one active EV charge point must be provided, with cabling to the remaining 20% of spaces.

2.3 Local Planning Policy

2.3.1 Hillingdon Local Plan Part 1

The Hillingdon Local Plan Part 1 was adopted in November 2012, and contains the following relevant sustainability policies:

Policy NPPF1 Presumption in Favour of Sustainable Development – The Council will take a positive approach when considering development proposals, reflecting the presumption in favour of sustainable development contained in the National Planning Policy Framework.

Policy BE1 Built Environment – The Council will require all new development to improve and maintain the quality of the built environment in order to create successful and sustainable neighbourhoods, where people enjoy living and working, and that serve the long-term needs of all residents. All new developments should:

1. Achieve a high quality of design in all new buildings, alterations, extensions and the public realm which enhances the local distinctiveness of the area, contributes to community cohesion and a sense of place;
2. Incorporate a clear network of routes that are easy to understand, inclusive, safe, secure and connect positively with interchanges, public transport, community facilities and services;
3. Improve the quality of the public realm and provide for public and private spaces that are attractive, safe, functional, diverse, sustainable, accessible to all, respect the local character and landscape, integrate with the development, enhance and protect biodiversity through the inclusion of living walls, roofs and areas for wildlife, and encourage physical activity;
4. Not result in the inappropriate development of gardens and green spaces that erode the character and biodiversity of suburban areas and increase the risk of flooding through the loss of permeable areas;
5. Maximise the opportunities for all new development to contribute to tackling and adapting to climate change and reducing emissions of local air quality pollutants. The Council will require all new development to achieve reductions in carbon dioxide emissions in line with the London Plan targets through energy efficient design and effective use of low and zero carbon technologies. Where the required reduction from on-site renewable energy is not feasible within major developments, contributions off-site will be sought. The Council will seek

to merge a suite of sustainable design goals, such as the use of SuDS, water efficiency, lifetime homes and energy efficiency into a requirement measured against the Code for Sustainable Homes and BREEAM. All developments should be designed to make the most efficient use of natural resources whilst safeguarding historic assets, their settings and local amenity and include sustainable design and construction techniques to increase the re-use and recycling of construction, demolition and excavation waste and reduce the amount disposed to landfill.

Policy EM1 Climate Change Adaptation and Mitigation – The Council will ensure that climate change mitigation is addressed at every stage of the development process by:

1. Promoting a modal shift away from private car use and requiring new development to include innovative initiatives to reduce car dependency;
2. Ensuring development meets the highest possible design standards whilst still retaining competitiveness within the market;
3. Working with developers of major schemes to identify the opportunities to help provide efficiency initiatives that can benefit the existing building stock;
4. Promoting the use of decentralised energy within large scale development whilst improving local air quality levels;
5. Targeting areas with high carbon emissions for additional reductions through low carbon strategies;
6. Encouraging the installation of renewable energy for all new development in meeting the carbon reduction targets savings set out in the London Plan.

The Borough will ensure that climate change adaptation is addressed at every stage of the development process by:

1. Locating and designing development to minimise the probability and impacts of flooding;
2. Giving preference to development of previously developed land to avoid the loss of further green areas;
3. Promoting the use of living walls and roofs, alongside sustainable forms of drainage to manage surface water run-off and increase the amount of carbon sinks;
4. Promoting the inclusion of passive design measures to reduce the impacts of urban heat effects.

Policy EM6 Flood Risk Management – The Council will require new development to be directed away from Flood Zones 2 and 3 in accordance with the principles of the National Planning Policy Framework. The Council will require all development across the Borough to use sustainable urban drainage systems (SuDS) unless demonstrated that it is not viable. The Council will encourage SuDS to be linked to water efficiency methods.

Policy EM7 Biodiversity and Geological Conservation – The Council will require all development to:

1. Result in biodiversity improvement, where feasible;
2. Provide green roofs and living walls which contribute to biodiversity and help tackle climate change; and
3. Use Sustainable Drainage Systems that promote ecological connectivity and natural habitats.

Policy EM8 Land, Water, Air and Noise – The Council will require that all new development demonstrates the incorporation of water efficiency measures within new development to reduce the rising demand on potable water. All new development must incorporate water recycling and collection facilities unless it can be demonstrated it is not appropriate.

Policy EM11 Sustainable Waste Management – The Council will require all new development to address waste management at all stages of a

development's life from design and construction through to the end use and activity on site, ensuring that all waste is managed towards the upper end of the waste hierarchy.

2.3.2 Hillingdon Local Plan Part 2: Development Management Policies

The Local Plan Part 2 was adopted in January 2020, and contains the following relevant sustainability policies:

Policy DMHB11 Design of New Development – All development, including extensions, alterations and new buildings will be required to be designed to the highest standards and, incorporate principles of good design including:

i. Ensuring that the internal design and layout of development maximises sustainability and is adaptable to different activities.

Policy DMEI2 Reducing Carbon Emissions –

A. All developments are required to make the fullest contribution to minimising carbon dioxide emissions in accordance with London Plan targets.
B. Proposals that fail to take reasonable steps to achieve the required savings will be resisted. However, where it is clearly demonstrated that the targets for carbon emissions cannot be met onsite, the Council may approve the application and seek an off-site contribution to make up for the shortfall.

Policy DMEI7 Biodiversity Protection and Enhancement –

A. The design and layout of new development should retain and enhance any existing features of biodiversity or geological value within the site. Where loss of a significant existing feature of biodiversity is unavoidable, replacement features of equivalent biodiversity value should be provided on-site. Where development is constrained and cannot provide high-quality biodiversity enhancements on-site, then appropriate contributions will be sought to deliver off-site improvements through a legal agreement.
B. All development alongside, or that benefits from a frontage on to a main river or the Grand Union Canal will be expected to contribute to additional biodiversity improvements.

Policy DMEI10 Water Management, Efficiency and Quality –

A. Applications for all new build developments (not conversions, change of use, or refurbishment) are required to include a drainage assessment demonstrating that appropriate sustainable drainage systems (SuDS) have been incorporated in accordance with the London Plan Hierarchy.
B. All new development proposals (including refurbishments and conversions) will be required to include water efficiency measures, including the collection and reuse of rainwater and greywater.

Policy DMT 6 Vehicle Parking – Based on the parking standards outlined in Appendix C of the Hillingdon Local Plan Part 2, parking for electric vehicles should be provided at a current minimum of 5% of car parking spaces with 5% passive provision to meet the Mayor's targets. This will be reviewed in future.

2.3.3 The London Plan

Adopted in 2021, the London Plan also contains a number of sustainability-related policies that the proposed minor development will have to comply with. These include:

Policy G6 Biodiversity and access to nature – Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

Policy SI3 Energy infrastructure – Development plans should:

1. Identify the need for, and suitable sites for, any necessary energy infrastructure requirements including energy centres, energy storage and upgrades to existing infrastructure;
2. Identify existing heating and cooling networks, identify proposed locations for future heating and cooling networks and identify opportunities for expanding and inter-connecting existing networks as well as establishing new networks.

Policy SI4 Managing heat risk –

A. Development proposals should minimise adverse impacts on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure.

Policy SI5 Water infrastructure –

Development proposals should:

1. Achieve at least the BREEAM Excellent standard for the 'Wat 01' water category or equivalent (commercial development)
2. Incorporate measures such as smart metering, water saving and recycling measures, including retrofitting, to help to achieve lower water consumption rates and to maximise future-proofing.

Policy SI7 Reducing waste and supporting the circular economy – Resource conservation, waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:

1. Promote a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible;
2. Encourage waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products;
3. Ensure that there is zero biodegradable or recyclable waste to landfill by 2026
4. Meet or exceed the municipal waste recycling target of 65% by 2030
5. Meet or exceed the targets for each of the following waste and material streams:

    a. Construction and demolition – 95% reuse/recycling/recovery
    b. Excavation – 95% beneficial use

6. Design developments with adequate, flexible and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.

Policy SI13 Sustainable drainage – Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features, in line with the following drainage hierarchy:

1. Rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)
2. Rainwater infiltration to ground at or close to source
3. Rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)
4. Rainwater discharge direct to a watercourse (unless not appropriate)
5. Controlled rainwater discharge to a surface water sewer or drain
6. Controlled rainwater discharge to a combined sewer.

Drainage should be designed and implemented in ways that promote multiple benefits including increased water use efficiency, improved water

quality and enhanced biodiversity, urban greening, amenity and recreation.

Policy T6 Car parking – Where parking is provided in new developments, provision should be made for infrastructure for electric or other Ultra-Low Emission vehicles.

Policy T6.2 Office parking – A Parking Design and Management Plan should be submitted alongside all applications which include car parking provision.

2.3.4 Hillingdon Validation Checklist

The Local Planning Validation Checklist[3]was adopted in June 2020 and requires that applications are accompanied by an **Energy and Sustainability Statement**.

2.4 Climate Emergency Declaration

The London Borough of Hillingdon has a proactive approach to sustainability and climate change. The Council declared a climate emergency in January 2020, and has pledged to become carbon neutral by 2030. This commitment is showcased in the Council's **strategic climate action plan**, which sets out an overarching vision for Hillingdon to respond to the climate emergency. Key objectives related to the proposed development include **C3 Building Better Places**, which aims to ensure all new developments are net zero, promote sustainable transport, and minimise flood risk.

2.5 Planning Policy Summary

Both local and national policy aims to ensure the delivery of sustainable and well-designed buildings which mitigate and adapt to the increasingly urgent impacts of climate change.

The latest national planning policy and guidance confirms the Government's approach to sustainable development is being driven through the updates to the Building Regulations.

In 2020, the Council adopted a new Local Plan which sets out a range of sustainable development policies including requirements to reduce carbon emissions, enhance biodiversity and mitigate the impacts of climate change.

The following chapters of this Sustainability and Energy Statement reflect Prologis' commitment to sustainability and the strategy for sustainable development in accordance with the national and local policy requirements.

3 https://www.hillingdon.gov.uk/media/5135/Validation-checklist-June-2020/pdf/PUBLICATION_Validation_Checklist_June_2020.pdf?m=1613489637773

3. Prologis – Environmental Stewardship, Social Responsibility, and Governance

3.1 Introduction

Prologis operates a market-leading Corporate Environmental Stewardship, Social Responsibility and Governance (ESG) Strategy which delivers low carbon and functional distribution buildings with a range of additional environmental, social and economic benefits.

This Chapter sets out their strategy, and how it addresses key sustainability issues such as climate resilience, social responsibility and wider environmental impacts.

3.2 Prologis ESG Practices

Prologis is a leading global provider of industrial real estate, offering customers approximately 585 million square feet of distribution space in markets across the Americas, Europe and Asia.

This represents over 2,800 industrial facilities in 21 countries which are leased to manufacturers, retailers, transportation companies, third party logistics providers and other enterprises with large scale distribution needs.

Prologis is one of the few real estate companies that operate both in the UK and globally and therefore has an opportunity to take a leading role as a responsible developer, owner and manager of industrial property.

Prologis has a proactive approach to sustainability, energy use and carbon dioxide emissions and has developed an enhanced specification to reflect this approach. In this context Prologis has invested heavily in the development of a market leading Global Corporate Sustainability Strategy updated in 2020[4] which aims to:

- Reduce its global operational Scope 1 and 2 carbon emissions by 21% by 2025;
- Reduce total Scope 3 GHG emissions by 15% by 2025;
- Design 100% of new buildings in accordance with recognised sustainable building certification schemes;
- Achieve 100% carbon-neutral construction globally;
- Install 400MW of solar capacity on its buildings by 2025; and
- Upgrade to 100% energy efficient lighting.

The strategy also considers additional sustainability metrics such as; water and waste reduction, smart metering, and low carbon renewable energy technologies – and these are brought forward within developments through the use of an enhanced specification.

The 2020 Sustainability Report[5] highlights Prologis' commitment to reducing its carbon footprint, committing to reducing absolute Scope 3 GHG emissions, which make up 99.9% of Prologis' carbon footprint, 15% by 2025.

Prologis' proactive approach to sustainability was recognised in 2019 with the company being listed in the top 100 Global Most Sustainable Corporations in the World.

3.2.1 A Culture of Resilience

The Environmental and Social Governance (ESG) programmes at Prologis are designed to augment resilience, on behalf of the business itself and the

[4] Our Goals & Progress | Prologis

[5] 2020-sustainability-report.pdf (prologis.com)

customers and communities it serves. Key examples include:

- Adaptability to rise to new opportunities;
- A culture that advances talent through inclusion and diversity, learning, development and leadership, benefits and health and wellbeing programs;
- Committed employees who do the right thing for customers, communities and stakeholders;
- Quality properties that are durable, reliable, efficient to operate, desirable and beneficial for communities and the environment; and
- Financial strength that enables the company to respond to changes and opportunities in the marketplace; and
- Signed in support of the Task Force on Climate-related Financial Disclosures (TCFD) in 2020 to track the company's efforts through metrics and science-based targets.

3.2.2 Environmental Stewardship

Prologis' environmental stewardship focuses on establishing goals and objectives including science-based targets, aligning with international commitments, tracking emerging trends, emphasising resilient design and construction, investing in renewable energy and energy-efficiency projects and implementing measures to reduce water use and carbon emissions. In order to meet their global target of achieving 100% carbon-neutral construction by 2025, Prologis seeks to address one of the largest sources of global carbon emissions: the embodied carbon of buildings.

In 2021, Prologis committed to achieving sustainable certification for 100% of all future Prologis development and redevelopment projects globally, pursuing first class sustainability standards such as LEED, BREEAM and WELL.

As part of the Prologis 2020 Sustainability Report, Prologis sets out a three-part approach to minimise their emissions:

1. Measuring their impact through detailed life-cycle assessments.
2. Reducing carbon emissions across the value chain through smart technologies such as rooftop solar, Smart Building systems and LED lighting (as part of an enhanced specification).
3. Investing in high-quality renewable energy credits (RECs) and offsets to neutralise the carbon emissions from their own operations and construction, whilst supporting and benefiting local communities.

Prologis set global goals that build on past success, further improving business processes and practices. Key sustainability goals and progress against them are noted in **Table 1** overleaf.

In June 2022, Prologis announced its commitment to achieve net zero emissions across its value chain by 2040, covering scope 1, 2 and 3 emissions. This commitment is supported by the interim targets noted in **Table 1**, such as achieving carbon neutral construction for every Prologis building by 2025. This has been published in the Prologis 2021-22 ESG Report[6].

[6] 2021-22-Prologis-ESG-Executive-Summary.pdf (getbynder.com)

Table 1: Prologis Global Sustainability Goals & Objectives7

	Goal	Progress
Sustainable Building Certifications	100% of new development	New goal established
Achieve 100% carbon-neutral construction	100% by 2025	New goal established
Scope 1 and 2 GHG emission reduction	21% by 2025	Ongoing
Scope 3 GHG emission reduction	15% by 2025	37% reduction
Achieve net zero by 2040 for Scope 1, 2 and 3 emissions	Net zero by 2040	Reduced Scope 1 and 2 emissions 22% and Scope 3 emissions 1% from 2020-2021
Energy Efficient Lighting	100% across our operating portfolio	42% (by area)
Solar Power Generation	200 MW by 2020	252MW in 2020
	400MW by 2025	

In the UK, Prologis is pioneering an approach to the design, construction and operation of more sustainable new commercial buildings that is innovative and allows Prologis to mitigate and adapt to climate change.

Prologis assesses the environmental impact associated with all phases of a new building life cycle, from the manufacture of the building materials through to the operation of the building and how it will be demolished and replaced, focusing on sustainable building certification; measurement, reduction and mitigation of construction stage and operational stage emissions; and environmentally responsible design.

3.2.3 Prologis Carbon Mitigation

Prologis is a long-term supporter of the charity 'Cool Earth'[8] through its unique strategy of carbon mitigation linked to protecting the world's most at risk rainforests. All the embodied carbon for each new development is mitigated by donating funds to Cool Earth for use in their work.

Cool Earth is a UK registered charity that works alongside indigenous villages to halt rainforest destruction. HM Queen Elizabeth II chose Cool Earth to be the lead partner for The Queen's Commonwealth Canopy (QCC), a pan-Commonwealth network of forest conservation projects to save one of the world's most important natural habitats.

For each acre of rainforest that is cleared, approximately 260tCO_2 is emitted. Through a Whole Life-cycle Carbon (WLC) assessment, Prologis can determine the embodied carbon for each new development so that once each project breaks ground, a donation is made to Cool Earth to protect to mitigate all of the embodied carbon emissions of the new development.

The cumulative results of this initiative by Prologis have delivered significant benefits in terms of carbon reduction and mitigation, and wider positive social and environmental impacts.

[7] 2020-sustainability-report.pdf (prologis.com)

[8] Protect Rainforest | Fight The Climate Crisis | Join Cool Earth

The embodied carbon reduction and mitigation strategy is monitored and certified by Planet First[9] who validate the final carbon footprint reports for all of Prologis' building. This process is undertaken as part of The Planet Mark New Development sustainability certification.

All Prologis developments commit to The Planet Mark certification which is achieved in stages covering design, construction, community engagement, carbon mitigation and occupier engagement. The certification is delivered with a number of expert partners. These include some of the UK leaders in lifecycle analysis in buildings, Cool Earth and the Eden Project, who provide social sustainability engagement programmes to communities local to each development.

3.2.4 Social Responsibility

Social responsibility at Prologis involves a commitment to all stakeholders – employees, customers, communities, suppliers and investors by investing time and resources into organisations that promote education, the environment, social progress and well-being.

Through schemes such as the employee volunteer programs, Prologis Foundation and Space for Good, as well as supporting non-profits and charitable organisations, Prologis demonstrates its commitment to give back to the communities and environments it operates within.

In early 2021, Prologis announced a partnership with the Association for Supply Chain Management (ASCM) to create a new industry certificate as part of the global Prologis Community Workforce Initiative (CWI). The CWI showcases the company's commitment to delivering excellent customer service while creating resilient local communities. Prologis has also pledged to train 25,000 individuals for jobs in transportation, distribution and logistics by the end of 2025. It is hoped that this will help develop the next generation of talent for the logistics industry.

Internally, Prologis aims to foster a positive work environment, prioritising learning and development, wellness initiatives, equal pay and inclusion and diversity.

3.2.5 Governance

Prologis is committed to upholding strict ethical standards and compliance, ensuring accountability and transparency, managing corruption and bribery risks and safeguarding the integrity of the supply chain.

3.2.6 Global Reporting Initiative (GRI) Materials

Prologis have reported to the GRI's Sustainability Reporting Guidelines for 13 years, and continue to demonstrate support for GRI's mission to empower decisions that create social, environmental and economic benefits for everyone.

3.2.7 Global Real Estate Sustainability Benchmark (GRESB)

GRESB is a rigorous benchmark which assesses the sustainability performance of commercial real estate portfolios globally. Participating organisations must respond to a survey that focuses on and assesses 50 indicators across the following aspects:

- Management;

[9] Planet Mark | Sustainability Certification | Carbon & Social Measurement

- Policy and disclosure;
- Risks and opportunities;
- Monitoring and EMS;
- Performance indicators;
- Building certifications; and
- Stakeholder engagement.

Prologis has been recognised by GRESB for exceptional performance in environmental stewardship, social responsibility and governance (ESG). In 2021, 10 out of 10 Prologis funds received GRESB Green Star recognition, which is the highest level of achievement in recognition of outstanding performance in ESG[10].

[10] Prologis Funds: Six Consecutive Years of GRESB Green Star Recognition | Prologis

4. Sustainability at Prologis Park, Dawley Road

4.1 Introduction

This chapter sets out the sustainability strategy and approach at Dawley Road for the proposed minor development

In the UK, Prologis is pioneering an approach to the design, construction and operation of more sustainable new commercial buildings that is innovative and allows Prologis to mitigate and adapt to climate change.

Prologis assesses the environmental impact associated with all phases of a new building life cycle, from the manufacture of the building materials through to the operation of the building and how it will be demolished and replaced, focusing on a range of sustainability metrics including those summarised below.

BREEAM – Confirming how Prologis will target an Excellent rating for the proposed buildings to deliver sustainable buildings which provide long term benefits to occupiers.

Mitigated Embodied Carbon Emissions – Demonstrating how Prologis aims to reduce and mitigate the embodied carbon of development through partnership with the charity, Cool Earth.

Reduced Operational Carbon Emissions – Demonstrating the energy efficient design measures and renewable energy technologies incorporated into the buildings to reduce energy use and carbon emissions.

Managing Environmental Impacts - Mitigating the potential impact of the development by addressing key sustainability issues such as; transportation, ecology and biodiversity, flooding and drainage, green infrastructure, waste management and resource efficiency. This includes ensuring the development includes measures to adapt to the effects of climate change.

The following sections set out how this strategy has been applied to the development at Dawley Road.

4.2 BREEAM

BREEAM is the world's leading sustainability assessment tool for new buildings. The scheme is operated by the Building Research Establishment (BRE) and includes a range of criteria against which the sustainability performance of new buildings are assessed.

As a commitment to sustainable development, Prologis ensures that all of its buildings are designed in accordance with BREEAM.

The BREEAM Refurbishment and Fit-Out (RFO) 2014 scheme will be used to assess the refurbishment.

A BREEAM pre-assessment of the warehouse buildings has been undertaken by Eight Associates, demonstrating a route to an 'Excellent' rating.

The pre-assessment demonstrates that a target score of 74.88% is possible for the Proposed

Development, exceeding the minimum requirement of 70% for an Excellent rating. As encouraged within BREEAM, sustainability measures and credit criteria have been incorporated at the earliest stage possible within the design, to ensure that they are embedded to create sustainable, high quality buildings.

4.3 Embodied Carbon Mitigation

Embodied carbon emissions are those emissions associated with the manufacture of the building materials, transport of these materials to site, construction, demolition and recycling contribute a significant proportion of a building's whole life carbon.

This section sets out Prologis' embodied carbon mitigation strategy which exceeds national and local policy, and best practice within the logistics sector.

4.3.1 Prologis Embodied Carbon Strategy

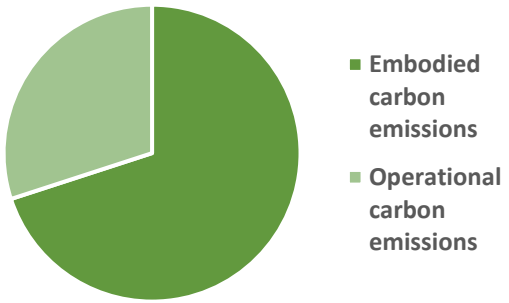
Building Regulations and planning policy have focused on regulated operational carbon emissions (such as heating and lighting) however, the embodied carbon of a building can account for a significant percentage of its lifecycle carbon emissions.

Prologis also recognise that the impacts of any new building should be measured over its lifetime. That is why Prologis have been producing WLC assessments for all new developments in the UK long before it became a planning policy requirement.

Over 10-years, Prologis has gathered extensive data to show the critical importance of reducing embodied carbon as well as operational carbon emissions in buildings.

The Prologis analysis shows that embodied carbon can be as much as 70% of the lifetime carbon emissions of a logistics centre / warehouse. As the UK energy grid is decarbonised through the adoption of renewable energy, the percentage of embodied carbon will increase in coming years.

Figure 3: Typical WLC of B8 Use Class



Implementing a strategy to reduce and mitigate this embodied carbon will therefore result in much greater carbon reductions than by simply focusing on operational emissions alone. When applied on a global scale, this approach has the potential to mitigate large quantities of carbon emissions.

Whilst its primary focus is on lifetime carbon reduction, Prologis chooses to go further by mitigating 100% of all embodied carbon emissions in all its new developments in the UK. It does this through a carbon mitigation programme in partnership with an award-winning charity called Cool Earth.

As the Cool Earth scheme protects rainforest through a range of social livelihood schemes, by robustly funding the scheme, wider community benefits will be provided in addition to carbon mitigation.

4.3.2 Embodied Carbon Assessment at Dawley Road

Embodied carbon benchmarks are not available at this time for refurbishment projects. As benchmarks do exist for new construction projects, these have been used to estimate the embodied carbon associated with an equivalent sized new building. The estimated embodied carbon of a new building project at 2,629sqm is 2,332 tonnes. This is likely to be a higher figure than that for a refurbished building.

The design team will include measures to reduce embodied carbon within the refurbishment. These are likely to include specification of:

- Cement alternatives within concrete;
- Certain percentage of recycled steel frame;
- Specification of Twin Therm cladding;
- Use of recycled materials on-site; and
- Specification of Interface carpet tiles.

Prologis will then mitigate the estimated embodied carbon (calculated based on an equivalent new construction project) through a donation to the Cool Earth Project, exceeding national and local policy requirements.

4.3.3 Cool Earth Contribution at Dawley Road

As stated above, an estimate has been made to set out the embodied carbon of the development at Dawley Road. In line with the Prologis commitment to Cool Earth and to mitigating climate change, Prologis chooses to go significantly further than just mitigating the embodied carbon of development. That is, Prologis chooses to apply a multiplier of five for each donation made to Cool Earth.

This robust approach is based on their deep understanding of the issues regarding deforestation and the concept of displacement, acknowledging that not every acre would have been lost without intervention, and that logging can move to other rainforest locations which have less controls.

The approach therefore means that the amount donated could avert emissions equivalent of up to five times the embodied carbon footprint of each development.

As the Cool Earth scheme protects rainforest through a range of social livelihood schemes, by robustly funding the scheme, wider community benefits will be provided in addition to carbon mitigation.

The carbon mitigation of the Prologis redevelopment at Dawley Road will protect approximately 22 acres of endangered rainforest in association with Cool Earth.

4.4 Operational Carbon Reduction

Prologis' Sustainability Strategy is continually developing in tandem with amendments to Part L of the Building Regulations which, since 2006, has required substantial reductions in regulated carbon emissions of new buildings and particularly distribution buildings. The building has been registered with Hillingdon Borough Council as a minor development and is designed in line with Part L 2013.

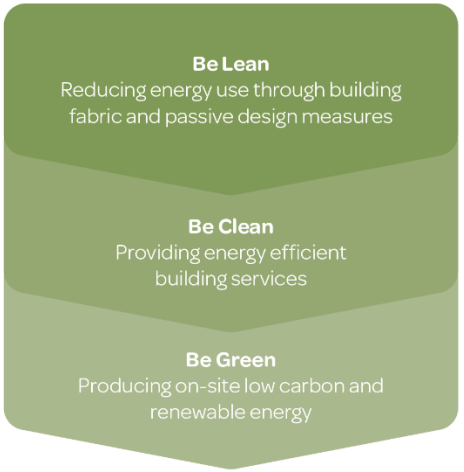
4.4.1 Prologis' Approach to Carbon Reduction

Prologis has invested heavily in the development of energy efficient buildings with an enhanced specification which utilise a number of measures to reduce and manage energy consumption following the principles of the Energy Hierarchy.

Following the energy hierarchy set out in **Figure 4**, Prologis aims to deliver sustainable new buildings which go beyond the requirements of national and local policy.

The following sections set out how the development at Dawley Road will be designed to reduce carbon emissions.

Figure 4: The Energy Hierarchy



4.4.2 Be Lean – Reducing Energy Use

Reducing the primary energy demand of a building through the use of an efficient fabric and services is widely regarded as best practice and is therefore the first and most important step to reducing carbon emissions.

The new buildings have been designed in accordance with a fabric first approach to create high efficiency buildings which reduce primary energy demand and therefore carbon emissions, aligning with **Policy DMEI2** of the Hillingdon Local Plan Part 2.

In new distribution warehouse buildings, the majority of the building is unlikely to require heating or cooling, with the main heating and cooling requirement limited to the small office spaces provided. As a result, the predominant energy consumption in these buildings will be electrical energy for lighting.

In the first instance, to create an efficient fabric and minimise energy use and lighting requirements, the following measures will be used within the warehouse buildings;

- Provision of roof lights within the warehouse building to cover 15% of the unit roof spaces to prioritise natural daylighting, minimising artificial lighting and energy requirements; and
- Provision of new, high efficiency LED lighting throughout;
- Passive design measures in the form of improved U-values, solar controlled glazing and reduced air permeability to reduce the base energy demand of the building.

Investing in improved fabric and construction techniques to create a more airtight building dramatically reduces the loss of energy to the external environment, thereby reducing energy needed for heating and cooling requirements.

In addition to the fabric efficiency measures proposed, the new buildings will include a range of energy efficiency measures such as low energy fans and high efficiency LED lighting.

As highlighted in the table overleaf, energy efficiency measures will reduce the regulated emissions on-site by 69% (against a Part L 2013 baseline). Through the fabric first approach and use of energy efficient services, the new buildings have secured a significant reduction in regulated carbon emissions beyond the baseline of Part L 2013, complying with **Policy DMEI2** of the Hillingdon Local Plan Part 2.

4.4.3 Be Clean - Energy Efficient Plant and Services

Once the need for energy has been minimised, the next step in the energy hierarchy is to ensure that the demand for energy is met as efficiently as possible through the consideration of:

- The installation or connection to District Heating systems; and
- The use of efficient heating systems.

District Heating – District Heat Networks (DHN) are suited to development with a high annual heat demand where there may be one or more large anchor loads which enables the connection of smaller more intermittent loads.

Typically, DHN consists of a centralised energy plant generating heat provided to connected buildings via a network of insulated heat pipes. Most commonly DHNs use gas fired Combined Heat and Power (CHP) which simultaneously generate electricity and heat.

Under **Policy DMEI 3** of the Hillingdon Local Plan Part 2, all major developments are required to be designed to be able to connect to a Decentralised Energy Network (DEN).

However, as the proposed development is not considered to be major, this is therefore not required. Additionally, buildings at Dawley Road are predominantly untreated with heating limited to the office and ancillary spaces. Consequently, the overall heat load of the buildings is relatively low. In this context, connection to a District Heat Network is not feasible for the proposed development.

4.4.4 Be Green - Low Carbon Renewable Energy

Prologis supports the use of renewable energy technologies where they provide a cost effective and sustainable solution to meeting specific

energy needs and can make positive contributions to carbon emission reduction.

Prior to the consideration of low carbon renewable energy, the fabric and energy efficiency measures are anticipated to reduce carbon dioxide emissions beyond the requirements of the Building Regulations. However, an overview of feasible technologies is provided below.

Solar PV – Solar PV systems can generate electricity for use in buildings and is suitable on south facing or shallow pitched, unobstructed roof spaces. These systems can provide energy for use inside of the buildings to offset regulated and unregulated energy requirements. However, given the low operational energy demand, the design does not propose to include solar PV at this time. However, roof space will be allocated for the provision of PV and the proposed development will maximise the opportunity for future PV connections by incoming tenants.

Solar Thermal Hot Water – Solar thermal systems are used to generate hot water and work in a similar manner to Solar PV. Hot water demand is limited to the office toilets and kitchen areas and thus there is likely to be insufficient demand for a solar thermal system.

Heat Pump Systems – Heat pumps provide low grade heat from the ground (Ground Source Heat Pumps, GSHP) or air (Air Source Heat Pumps, ASHP) suitable for heating highly efficient buildings which would be well suited to the proposed development. They require mains electricity to operate but typically provide around three units of heat for every unit of electricity that is consumed. Because the heat generated is at a lower temperature than that produced by a gas boiler, heat pumps typically require underfloor heating or over-sized radiators to ensure the heat is distributed efficiently. The Government anticipates that the decarbonisation of the electricity network will shift design to using electric heating systems, including heat pumps. Heat pumps have been specified to serve the office heating and cooling needs.

Air Source Heat Pumps – Air Source Heat Pumps (referred to as "ASHPs" hereafter) extract low grade heat from the air and raise the heat to a higher temperature for domestic heating and hot water loads. They require less space than Ground Source Heat Pumps and less maintenance than combustion-based heating systems. They also have a longer life than combustion boilers.

Heat pumps save carbon emissions. Unlike burning oil, gas, LPG or biomass, a heat pump produces no carbon emissions on site (and no carbon emissions at all, if a renewable source of electricity is used to power them). Heat pumps can also provide cooling in summer, as well as heating in winter. ASHPs are considered suitable for the proposed development to provide heating and cooling.

Ground Source Heat Pumps - Ground source heat pumps (GSHP) draw heat from underground through a refrigeration cycle, and can be a very efficient solution. The ground can also be used as a source of heat and cooling. GSHPs can be either open loop or closed loop. An open loop system will require abstraction and discharge licences from the Environment Agency; a closed loop system comprises of buried pipes. This system requires extensive ground works to extract low grade heat from the earth, proving very expensive. GSHPs are not considered practical or cost-effective for this development.

Biomass - Biomass provides useable heat from a range of solid fuels including wood and straw. The installation of a biomass boiler, flue and associated fuel store require significant space. The high operational and maintenance costs associated with biomass mean it is not considered appropriate for the redevelopment.

Summary – In summary, the most feasible technology for this site is the use of Air Source Heat Pumps. Overall, the 'Be Green' measures will achieve a 69% improvement over the Part L 2013 baseline, as highlighted in **Table 4** overleaf. Please note that this is an estimated figure based on the

CIBSE Guide F (2012) benchmark, and is therefore likely to change, subject to detailed building modelling.

The proposed development will reduce carbon dioxide emissions beyond the requirements of Building Regulations by 69% in line with **Policy DMEI2** of the Hillingdon Local Plan Part 2 through fabric and energy efficiency measures. While solar PV will not be installed, the design will enable future connections the eventual tenants. To lower environmental impact and carbon emissions arising from the development, the applicant will focus on reduction of embodied carbon. This, coupled with the Prologis approach to carbon mitigation will help ensure a sustainable development meeting local and national policy requirements.

4.4.5 Estimated Carbon Emissions

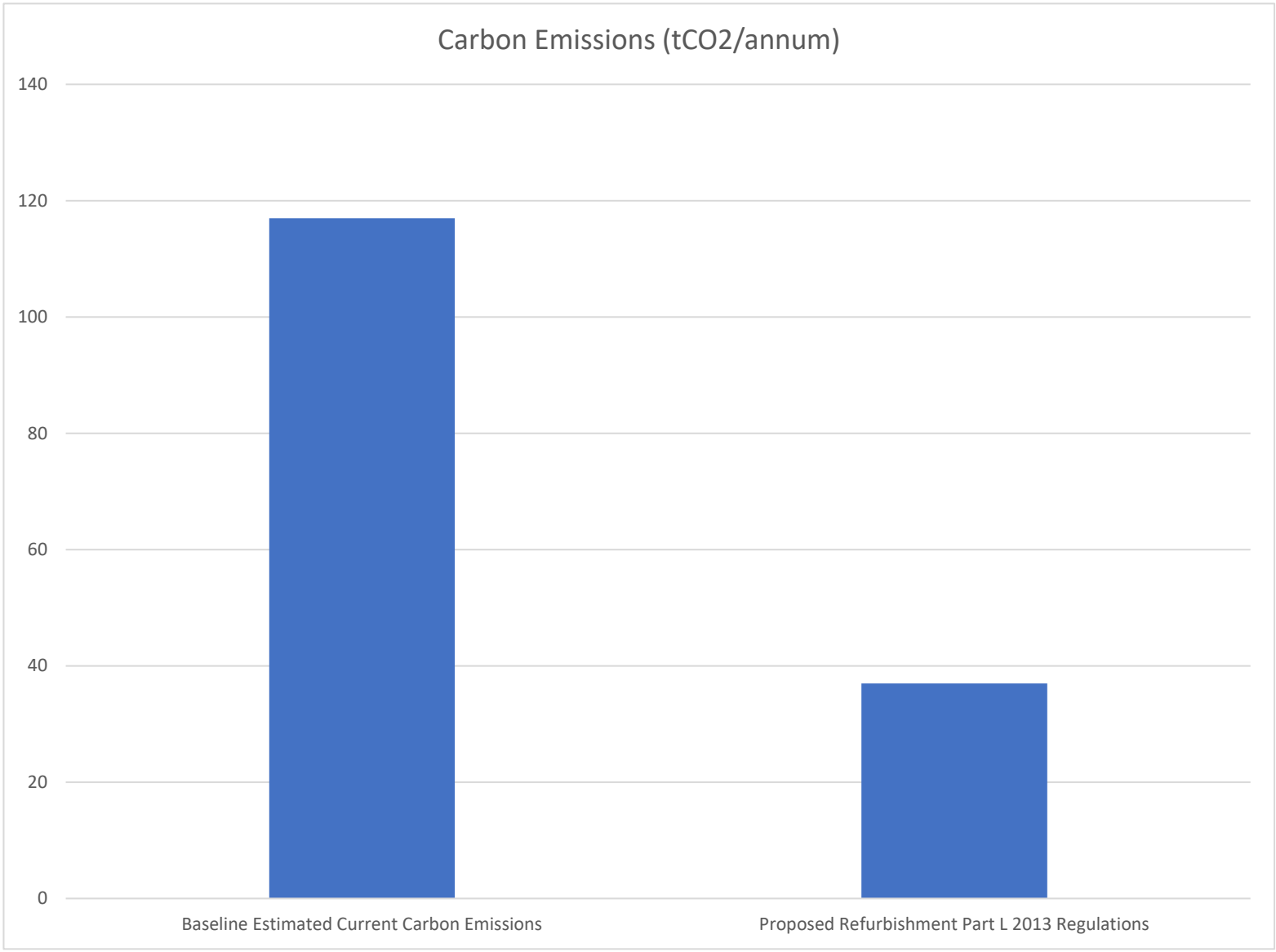
Table 2 (below) sets out the design stage carbon dioxide emissions for the proposed development. The estimated reduction in carbon emissions at the proposed development is shown in **Figure 5**. It should be noted that these figures are estimates, subject to detailed building modelling and are likely to change.

Table 2: Estimated reduction in Carbon Dioxide Emissions at Dawley Road

	Energy Demand (kWh/yr)	Carbon Emissions (tCO_2/annum)
Baseline Estimated Current Energy and Carbon[11]	620,444	117
Proposed Refurbishment Part L 2013 Regulations	271,400	37
Carbon Reduction	-	80
% Carbon Reduction (beyond Part L 2013)	-	69%

[11] Source: CIBSE Guide F (2012)

Figure 5: Estimated reduction in carbon emissions at the proposed development through achievement of Part L 2013 compared to CIBSE Guide F 2012 baseline



4.5 Environmental Responsibility

Prologis' approach to sustainability extends beyond just meeting BREEAM standards and its commitment to sustainable energy and reducing operational and embodied carbon emissions.

Whilst a commitment to BREEAM and the proposed energy and carbon reduction strategy addresses some of the key sustainability issues, Prologis also seeks to positively support sustainable development in all areas of its development activities.

At a corporate level, the company is certified to the ISO 14001 series of international standards on environmental management. The standard provides a framework for the development of an environmental management system and a supporting audit programme and demonstrates the Prologis commitment to environmental stewardship. The ISO 14001:2004 certification for all Prologis UK project management activities falls broadly into the following categories:

- Assessing the environmental issues associated with land purchased for development;
- Procuring construction contracts for the development of land;
- Monitoring the progress and quality of construction works through to completion.

At Dawley Road, Prologis proposes a comprehensive set of sustainable design initiatives that support its goal of delivering sustainable and environmentally responsible development and reflects the requirements of the NPPF in the context of the refurbishment of an existing, historic building.

Whilst the energy and carbon reduction strategy addresses some of the key sustainability issues, Prologis also seeks to positively influence on other key sustainability issues which include:

- Building a strong and competitive economy;
- Sustainable transportation;
- Protecting and enhancing the natural environment; and,
- Meeting the challenge of climate change.

4.5.1 Building a Strong and Competitive Economy

The proposed development at Dawley Road is expected to have significant beneficial effects on the generation of employment opportunities and economic output in the local impact area. This has the potential to be further enhanced through the encouragement of local recruitment.

The construction of the proposed development will provide opportunities for local employment as well as increased revenue locally for materials, services and goods. The logistics sector provides a steady source of job growth and the sector offers a range of well-paid employment opportunities across the occupational spectrum and the local economy is in need of additional jobs so as to keep pace with population growth and reduce unsustainable levels of out-commuting for work.

Prologis is a long-term investor in the site and aims to ensure its developments are beneficial to local communities. Prologis hosts site visits for local schools, and encourages its tenants to carry out their own outreach and local employment programmes.

4.5.2 Sustainable Transportation

In support of the proposed development, a Transport Statement has been prepared by WSP which is supported by a Framework Travel Plan, to set out how the development will work to minimise its traffic impact.

The site is located within Speedway Industrial Estate in Hayes. The site is bordered by the Grand Union Canal in the North and is accessible via Vinyl Place which connects to the local highways network through Dawley Road, that runs the length of the industrial estate.

Walking and Cycling – The site and the surrounding area has a number of pedestrian links, with compliant dropped kerbs, ramps and crossing points to enable pedestrian safety. The immediate surrounding area within the industrial

estate has designated pedestrian walkways on both sides of the carriageway, which is well lit, to ensure pedestrians can access the proposed development safely. The proposed development borders the Grand Union Canal, which is suitable for pedestrians and cyclists. The canal's mainline runs 220km between Birmingham and London, but can also be used by residents of local areas including parts of West Drayton, Colham Green and Hayes Town. Sections 10 and 11 of the London LOOP footpaths also operates within close proximity to the site, following a small section on the Grand Union Canal, as well as the River Crane south of the site towards Cranford and the River Colne to the north of the site towards Uxbridge.

The area has limited designated cycle lanes in close proximity to the site, however, it does benefit from a shared pedestrian and cycle lane along Shepiston Lane towards the M4. Further, a designated TfL cycle route within close proximity to the proposed development is the Quietway Link, which utilises sections of the Grand Union Canal and facilitates good cycle access to the site from West Drayton and Colham Green in the west, as well as parts of Southall, Greenford and Northolt.

The proposed development will include cycle parking for visitors and employees which aligns with **Policy T5** of the London Plan. A review for the feasibility of a Santander docking station has been undertaken. Due to the fence positions and necessary offsets for access around the various units, including those adjacent to the EMI development, it was found that there was not enough available space to implement a station.

Bus Services – The closest bus stop to the Proposed Development is Swallowfield Way, less than 100m from the site. This stop is served by one service only, the U5, between Stockley Park and Hayes & Harlington. The service runs 6 times an hour.

Hayes & Harlington Station is a 15-minute walk or 5-minute cycle from the site, and has the best served bus stops. Further detail on the bus services at Hayes & Harlington can be found in **Appendix 1**.

Rail Services – The closest railway station to the site is Hayes and Harlington. This is accessible via the pedestrian network, and is under a 15-minute walk away or 5-minutes cycling. This is an acceptable walking and cycling distance from the development site, meaning public transport can be accessed on foot or as part of a linked trip by cycle. Hayes and Harlington Station currently provides two services, including National Rail services from Great Western Rail between London Paddington and Didcot Parkway, as well as the newly opened Elizabeth line, that operates between Reading and Heathrow in the west and London Paddington Station.

Electric Vehicles – Electric Vehicle charging provision will be provided, complying with Part S requirements, **Policy T6** of the London Plan and exceeding the requirements of **Policy DMT 6** of the Hillingdon Local Plan Part 2. At this stage, it is anticipated that at least 20% of staff parking will have active provision whilst the remaining 80% will have passive provision.

Sustainable Transport Summary – The Transport Statement demonstrates that the site is accessible via sustainable modes of transport by occupants of the proposed development. The site benefits from having a connected network of footpaths and several shared use paths for cyclists as well as the Grand Union Canal which provides pedestrian and cyclist connections to the key destinations along the key routes.

Further details on sustainable transport are set out in the Transport Statement and Framework Travel Plan which accompany the site application.

4.5.3 Protecting and Enhancing the Natural Environment

To support the application, an Ecological Assessment has been carried out by Ecology Solutions. The Assessment was commissioned to identify potential ecological constraints on the

proposed development and propose further surveys that may be required.

The site itself is located off Dawley Road in Hayes, and comprises part of an existing industrial estate. The application site primarily comprises existing buildings with hardstanding. Planting within the application site is restricted to very small areas of amenity grassland and ornamental planting. Habitats present which are of any ecological value within the context of the application site include areas of amenity grassland, small areas of scrub and ornamental vegetation. However, these support a very limited range of species, all of which are widespread and common, and given the small areas present, offer negligible value in terms of botanical interest of the application site or to faunal species.

Mitigation Measures –

To minimise the impact of the development on site biodiversity, the following mitigation measures will be implemented:

- The vast majority of existing vegetation will be fully retained, including habitats immediately adjacent to the Grand Union Canal. This corridor will be retained for use by foraging and commuting bats;
- Suitable management measures to ensure the maintenance of retained habitats, to maximise their biodiversity value;
- Clearance of any suitable nesting habitats should be undertaken outside of the main development of the main bird breeding season; and
- A sensitive lighting strategy will be adopted to minimise the potential for additional light spillage to both off-site habitats and areas of retained habitats.

Enhancement Measures –

A series of habitat creation proposals have been incorporated into the design of the Proposed Development, to enhance on-site biodiversity, complying with **Policy EM7** of the Hillingdon Local Plan Part 1, which requires development to result in a biodiversity improvement where feasible. These comprise of:

- The provision of new native bolster hedgerow and tree planting within the retained areas will enhance the quantity and quality of the habitats present within the site post-development; and
- Bat boxes could be erected at suitable locations on retained buildings, to provide new roosting opportunities for bats which are currently absent from the site.

Additionally, Ecology Solutions have undertaken BNG calculations for the site using the Defra Metric 3.1 calculator. The results show that the development will achieve a **+7.58%** net gain in biodiversity. These measures comply with the requirements of **Policy DMEI17** of the Hillingdon Local Plan Part 2, which states the design and layout of new development should retain and enhance any existing features of biodiversity or geological value within the site.

Further information on the ecological impact of the development and measures to mitigate and enhance site biodiversity are set out in the Ecological Assessment which accompanies the application.

4.5.4 Meeting the Challenge of Climate Change

To ensure the proposed development is resilient to the effects of climate change it incorporates a number of key design measures in response to the climate predictions set out in the UKCP18 projections.

The UKCP18 projections demonstrate that over time the UK will experience increased summer and winter temperatures with significantly increased maximum temperatures, reduced summer rainfall, increased winter rainfall and an increase in extreme weather events.

The UK Climate Change Risk Assessment updated in 2017 identifies key risks associated with the effects of climate change and in relation to the built environment and the proposed development these include reduce summer water availability,

increased winter rainfall and increased summer temperatures.

This section identifies key measures which will be incorporated into the design of new buildings and the proposed development to adapt to climate change.

Water Use, Flooding and Drainage

The Flood Risk Assessment, prepared by Bradbrook Consulting, reviews the potential risk of flooding to the site and the proposed measures to mitigate potential risks of surface water flooding in accordance with national guidance.

The FRA confirms the site lies entirely within Flood Zone 1, is therefore at a very low risk of fluvial or tidal flooding. Pluvial flooding is also considered very low for the site, while flooding from groundwater, sewers and artificial sources is considered low. The proposed development will use the latest best practice guidance to ensure that flood risk is not increased as a result of the development.

A Drainage Strategy has been prepared by HDR Consulting. The drainage network has been designed to accommodate runoff from storms of up to 1 in 100 year return period plus a 25% allowance for climate change in accordance with local and national policy. The surface water strategy for this development is proposed to be managed through a series of drainage channels with all the surface water to be stored in a below ground attenuation tank.

Further information is available in the Flood Risk Assessment and Drainage Strategy which accompany the application.

Water Efficiency

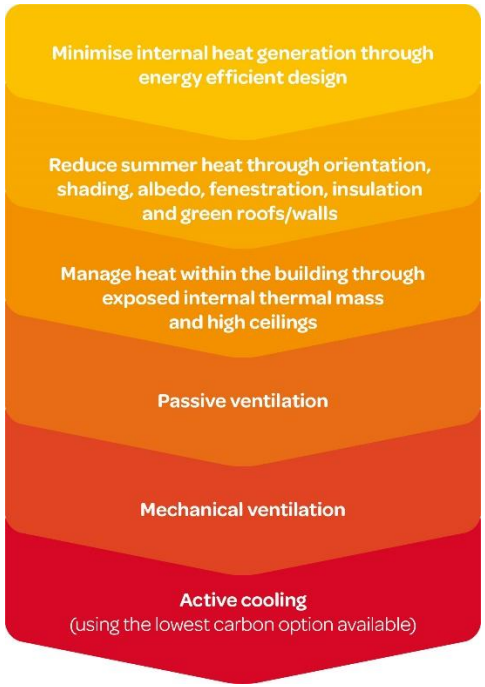
The design team has confirmed that the proposed redevelopment will aim for a 40% improvement in water consumption (litres/person/day) compared to BREEAM's notional baseline performance. This complies with **Policy SI5** of The London Plan, which states that development proposals should achieve at least the BREEAM Excellent standard for the 'Wat 01' water category or equivalent. To conserve water, Prologis will specify water efficient appliances including dual flush toilets and PIR sensors for taps. Water meters combined with leak detection equipment will also be specified.

Overheating

With increasing summer temperatures there is an increasing risk of overheating which could adversely affect building occupants and users. The proposed development aims to provide Air Source Heat Pumps to provide heating and cooling where necessary to avoid overheating.

The BREEAM assessment has targeted the Hea 04 credits, which require dynamic thermal modelling for current and future climate scenarios, to assess how the building may be affected by overheating. Additionally, the proposed development has been designed in accordance with the cooling hierarchy, as shown in **Figure 6,** which aims to reduce any potential overheating in buildings. Incorporating the cooling hierarchy into the design process means buildings will be better equipped to manage their cooling needs and to adapt to and mitigate climate change.

Figure 6: The Cooling Hierarchy



4.5.5 Air Quality

An Air Quality Assessment (AQA) has been undertaken by WSP to address the potential air quality impacts during both construction and operational phases of the proposed development.

The AQA concludes that the site is located in an area where the main influence on air quality is expected to be emissions from road traffic, although emissions from local industrial sources may also be a contributing factor.

Background maps, recent monitoring data and data from the LAEI (for 2019) suggest that concentrations of NO_2, PM_{10} and $PM_{2.5}$ are likely to be below the respective objectives at the site itself. Given the proposed use for the site, the AQA confirms that existing air quality will not pose a constraint to the development of the site. In the absence of the Proposed Development, it is anticipated that conditions within the site would remain relatively unchanged.

4.5.6 Waste and Resource Management

Development requires the use of land and natural resources in construction and operation. In accordance with the corporate sustainability strategy, Prologis has developed a range of procedures to maximise resource efficiency and minimise waste during all stages of the development.

Design Stage Resource Management

The development aims to retain as much of the existing building fabric as possible to minimise waste generated from the site clearance and construction.

For the remaining new construction elements Prologis is committed to designing out waste, recognising that the planning and design stage of development plays an important role in reducing waste in accordance with the waste hierarchy.

Prologis has invested heavily in a construction specification that maximises energy and resource efficiency.

Additionally, all materials will also be sourced in accordance with a sustainable procurement strategy which includes the following measures:

- All timber will be sourced from sustainable sources;
- Recycled products with low embodied carbon will be preferred; and,
- Materials suppliers that have an established Environmental Management System will be prioritised.

Construction Waste Management

During site clearance and construction, a waste management strategy will be implemented which will promote waste segregation and recycling. A pre-demolition audit will be undertaken to inform where materials may be re-used and improve material efficiency.

The main contractor will be required to implement a range of procedures to minimise waste and environmental impact during the construction phase, in order to meet the recycling target of 95%. These measures include:

- Develop a Site Waste Management Plan which will include procedures for maximising recycling and minimising construction waste to landfill.
- Keeping detailed records to indicate the main types and quantities of materials recycled.
- All timber used on site shall be responsibly sourced from either certified sources (FSC) or from reclaimed or reused sources.
- Comply with all relevant legislation, codes of practice and standards and shall adopt best practice policies for the control of air, water and noise pollution.
- Registration with the Considerate Contractors Scheme.
- Provision and use of suitable and secure methods and types of storage for all materials including those that may cause a potential environmental impact following accidental spillage (such as hydrocarbons).

The quantity of construction waste has been estimated at **92 tonnes**, as shown in **Table 3** overleaf. In line with **Policy SI7** of the London Plan, the proposed development has set a construction and demolition waste recycling target of 95%, and so 87.4 tonnes of construction waste must be recycled.

Table 3: Estimated waste generation during construction

Building / Plot	GIA (m^2)	Waste benchmark[12] (tonnes / 100m^2)	Waste Quantity (tonnes)	% Target Recycling	Tonnes to be recycled	Tonnes to be disposed
Proposed Development	2,629	3.5	**92**	95%	87.4	5

[12] BREEAM UK Non-domestic Refurbishment and Fit-out 2014 (bregroup.com)

Operational Waste Management

During the operational phase of the building, Prologis will work with the occupiers to provide appropriate waste management facilities in accordance with the requirements of the London Borough of Hillingdon, and the Waste Hierarchy (**Figure 7**) to enable segregation and recycling. Turley have estimated the anticipated volume of municipal waste generated during the operational phase of the proposed development to be **137 tonnes**, based on the British Standard (2005)[13]. In line with **Policy SI7** of the London Plan, the proposed development has set a municipal waste recycling target of 65% by 2030, requiring 89 tonnes of municipal waste generated during operation to be recycled. The estimated waste generation during operation is shown in **Table 4** below.

Figure 7: Waste Hierarchy

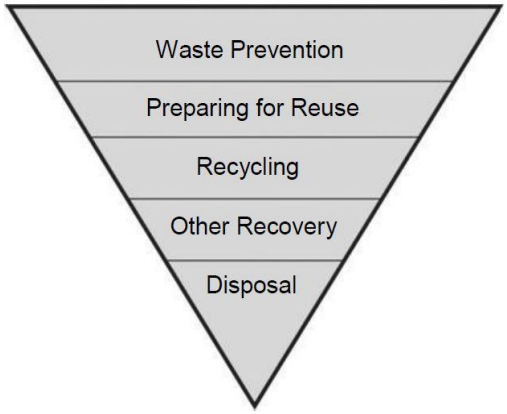


Table 4: Estimated waste generation during operation

Building / Plot	Waste Quantity (tonnes)	% Target Recycling	Tonnes to be recycled by 2030
Proposed Development	**137**	65%	89

[13] untitled (rbkc.gov.uk)

5. Conclusion

Prologis has a proactive approach to sustainable development and takes a holistic view to design to deliver low carbon resource efficient buildings.

This Sustainability and Energy Statement has been prepared to demonstrate how the proposed development at Dawley Road will deliver a sustainable development in accordance with national and local planning policy.

Prologis has a proactive approach to sustainability with a range of corporate goals to deliver high quality sustainable development. This whole life cycle approach to development includes assessment of carbon emissions at all stages of the development, reducing emissions and mitigating emissions through the protection of rain forest through the Cool Earth scheme.

In this context, the key sustainability measures incorporated into the design of the development include:

- A commitment to deliver sustainable distribution buildings that achieve the BREEAM RFO 2014 'Excellent' environmental assessment rating;
- Contribution to the Cool Earth scheme to protect endangered rainforest, averting emissions equivalent to 5 times of the embodied carbon of the development;
- A reduction in carbon dioxide emissions by at least 69% in line with **Policy DMEI2**;
- Incorporation of ASHPs to provide a low carbon, energy efficient heating and cooling solution;
- Reduced water consumption in operation through water efficient fittings and suitable metering to achieve a water efficiency standard of 40%;
- A commitment to providing resilience to the effects of climate change through the use of climate change allowances of 25% in the surface water system design;
- Maximise resource efficiency and minimise waste during construction; and
- The provision of ecological mitigation and enhancement measures to support biodiversity and achieve a **+7.58%** net gain using the Defra Metric 3.1 calculator.

Appendix 1 – Bus Services (Source: Transport Statement, WSP)

Service Number	Route	Frequency (Mon – Fri)	First / Last Bus
U5	Stockley Park – Hayes & Harlington Station	Every 10 minutes	15:15 / 00:15
90	Northolt – Feltham	Every 10 minutes	04:57 / 00:47
140	Long Elms – Hayes & Harlington	Every 5 minutes	05:01 / 01:01
195	Romney Road – Brentford County Court	Every 10 minutes	05:31 / 00:41
278	Heathrow Central Bus Station – Brickwall Lane	Every 15 minutes	04:27 / 00:20
350	Millington Road – Heathrow Terminal 5	Every 20 minutes	04:39 / 01:01
696	Conway Drive – Hume Way	2 per day	15:59 / 16:09
698	West Drayton Station – Ickenham Station	5 per day	15:25 / 15:45
E6	Rockford Avenue / Greenford Station – Bulls Bridge Tesco	Every 12 minutes	05:38 / 01:18
H98	School Road – Wood End Green Road	Every 10 minutes	05:18 / 00:18
U4	Prologis Park – Belmont Road	Every 10 minutes	05:39 / 23:42
X140	Heathrow Central Bus Station – Harrow Bus Station	Every 15 minutes	06:07 / 22:47

Appendix 2 – Building Control Acceptance

JM PARTNERSHIP
(SURVEYORS) LTD

EMAIL ONLY: Mark Sanderson MarkSanderson@winvic.co.uk

Please quote our reference in all correspondence

Winvic Construction Ltd
Brampton House
19 Tenter Road
Moulton Park
Northampton
NN3 6PZ

Our ref: JW/IB/MID/22/028765
Please ask for: James Worth
Midlands Office Tel: 01332 854 694

24th June 2022

Dear Mark

ERECTION OF DISTRIBUTION WAREHOUSE AND ASSOCIATED OFFICES (BASE BUILD, SHELL & CORE) AT UNIT 7, WAREHOUSE AT EMI ARCHIVE, 1A VINYL PLACE, HAYES, UB3 1HH

As you may be aware we have been appointed as the Building Control body to oversee the above project to ensure that the work complies with the Building Regulations.

The Initial Notice has been served on the Local Authority and we enclose a copy of this for your records.

Please also find attached a copy of the acceptance letter from the Local Authority.

Please also find attached our Building Control Site Inspection framework guide of our anticipated inspection regime for the project. When available, would you kindly provide us with an approximate start date for commencement of works on site.

If you require any further information or to arrange a site visit, please do not hesitate to contact me on 07900 784 094 or by email james.worth@jmpartnership.uk.com

Yours sincerely,

James Worth on behalf of JM Partnership (Surveyors) Ltd

Encs: Initial Notice / Acceptance Letter / Site Visit Framework Guide

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