New Warehouse Unit

Newlands Road, Cardiff

Sustainability Statement

For

Cubex Land Limited

Prepared by

Carbon Consult Limited

Camerton Inn, 28 Meadgate

Camerton

Bath

BA2 0NW

Revision record

Description	Rev	Date	By	Checked
Sustainability Statement	1.0	12/03/22	Ami Brahmkshatriya	Fleur Baguley
Sustainability Statement	1.1	07/04/22	Fleur Baguley	Fleur Baguley

Table of Contents

CHAPTER: 1 EXECUTIVE SUMMARY

Carbon Consult Limited has been commissioned on behalf of Cubex Land Limited to prepare a Sustainability Statement as supporting documentation to a full planning application for a new Warehouse Development at Newlands Road, Cardiff. This site is situated adjacent to the existing Wentloog Corporate Park.

The proposed development comprises the construction of a speculative warehouse (Use Class B2/B8), with ancillary offices (Use Class B1(g)(i)), with associated infrastructure works including site access, parking provision, landscaping and drainage works. The proposed building is 6,225m^2 GFA. This includes 5602 m^2 of warehouse on the ground floor, 622 m^2 of office on mezzanine floor and 557 m^2 of office area on first floor.

The development site is a greenfield site with an area of 4.32 acres. The site falls within the defined settlement boundary on the LDP Proposals Map and within an allocated employment area protected for B1, B2 and B8 uses under Policy EC1.4 Site[1].

The development is targeting the achievement of a BREEAM Excellent rating at both Design and Construction Stages.

[1] Wentloog Road (Capital Business Park, Lamby Way Industrial estate, Wentloog Corporate Park, Rail Freight Terminal).

The scheme in summary proposes the following:

Energy & Carbon Emissions
• Achievement of the mandatory BREEAM performance standards within the Energy section of assessment for an Excellent rating • A fabric first approach to design • Incorporation of Low and Zero Carbon technology in the form of Solar PV • Metering and monitoring systems
Land Use, Ecology & Archaeology
• Mitigation of loss in ecological value with landscaping proposals for habitat creation and management • Implementation of a Construction and Environmental Management Plan (CEMP) • Implementation of a Landscape and Ecological Management Plan (LEMP)
Water, Flooding & Drainage
• Specification of water efficient fittings • Metering and monitoring systems including leak detection • Designing drainage systems to take account local flood risk, increases due to climate change and managing surface run-off • Systems to prevent local pollution of water courses
Waste Management
• Development of a materials efficient design • Development of a Site Waste Management Plan • Targets and systems in place to minimize construction waste and divert from landfill • Facilities to enable the tenant to operate a full recycling policy
Transport
• The transport assessment has considered the access to the site for staff and for HGV's/ operational vehicles • Developing a Framework Travel Plan to help inform the design • Incorporation of active sustainable travel (cycle) facilities

Health
• Designing the base build to allow the tenant to develop a pleasant indoor working environment • Provision of external spaces to enhance a sense of wellbeing
Materials
• Undertake material reviews for embodied impact • Developing a Sustainable Procurement policy • Responsibility source materials
Operational Pollution
• Minimising impacts associated with operations including noise, light, and accidental spillages
Construction
• Appointing contractors who have Environmental Management Systems in place • Developing a Construction Environmental Management Plan to ensure minimized impact • Monitoring and setting targets for water and energy use during construction • Setting targets for maximum waste production during construction and minimum targets for diversion from landfill.

CHAPTER: 2 INTRODUCTION

2.1 GENERAL – PROJECT DETAILS

Carbon Consult Limited has been commissioned on behalf of Cubex Land Limited to prepare a Sustainability Statement to support the submission of a full planning application for a new warehouse development at Newlands Road, Cardiff.

The plans include:

- Warehouse unit 5,602m^2
- Two storey ancillary office 1,179m^2
- Parking for 6 HGVs
- Dock loading for 6 HGVs
- 58 Car Parking Spaces including 3 accessible spaces, 3 car-share spaces and 12 Electric Vehicle Charging
- 5 powered two wheeler spaces and 20 cycle spaces
- Landscaping buffer

The site is a greenfield site located at the south of Newlands Road with an area of 1.73 hectares / 4.32 acres. The site is afforded access to the A4232 to the west and further connections to the road network via the A48 and M4 at Junction 29 which is situated approximately 8 miles to the north.

Image courtesy of UMC Architects

Figure 1: Site Layout (21166_P0002G) – Newlands Road, Cardiff.

2.2 SUSTAINABILITY IN PLANNING

This Sustainability Statement has been provided to detail the proposed aspirations for the project and reflects the goals it aims to achieve.

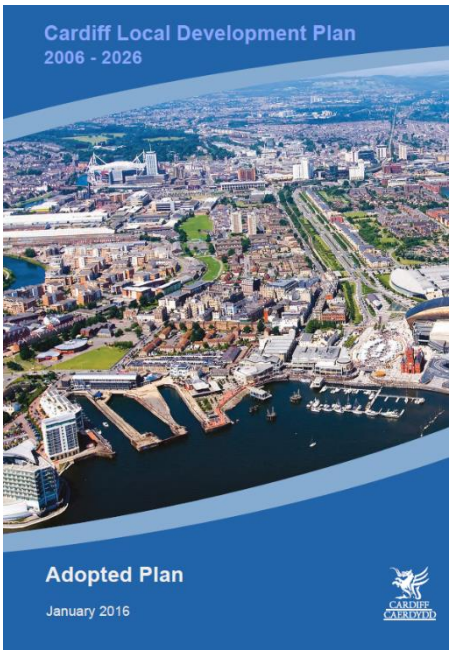
It is proposed that an independently certified environmental assessment (BREEAM: Building Research Establishment Environmental Assessment Method) will also be undertaken on the project, with an aspiration to achieve a BREEAM Excellent rating.

2.3 POLICIES AND DRIVERS

This section summarises the key local policy and national regulations affecting the proposed project.

2.3.1 LOCAL POLICIES

Cardiff Local Development Plan[2]



The Local Plan 2006-2026 was adopted in January 2016. It sets out the following policies for developments.

Specific policies of note include:

Policy KP5 – Sustainable Development Principles

It requires all new development will be required to be of a high quality, sustainable design and make a positive contribution to the creation of distinctive communities, places and spaces by:

- Responding to the local character and context of the built and landscape setting so that layout, scale, form, massing, height, density, colour, materials, detailing and impact on the built and natural heritage are all addressed within development proposals
- Providing legible development which is easy to get around and which ensures a sense of continuity and enclosure
- Providing a diversity of land uses to create balanced communities and add vibrancy throughout the day

[2] Local Plan 2006-2026, Cardiff Local Development Plan, Cardiff City Council, Adopted Jan 2016

- Creating interconnected streets, squares and spaces as distinctive places, which are safe, accessible, vibrant and secure and incorporate public art where appropriate

- Providing a healthy and convenient environment for all users that supports the principles of community safety, encourages walking and cycling, enables employment, essential services and community facilities to be accessible by sustainable transport and maximises the contribution of networks of multi-functional and connected open spaces to encourage healthier lifestyles

- Maximising renewable energy solutions

- Achieve a resource efficient and climate responsive design that provides sustainable water and waste management solutions and minimise emissions from transport, homes and industry

- Achieving an adaptable design that can respond to future social, economic, technological and environmental requirements

- Promoting the efficient use of land, developing at highest practicable densities and where appropriate achieving the remediation of land contamination

- Ensuring no undue effect on the amenity of neighbouring occupiers and connecting positively to surrounding communities

- Fostering inclusive design, ensuring buildings, streets and spaces are accessible to all users and is adaptable to future changes in lifestyle

- Locating Tall buildings in locations which are highly accessible through walking and public transport and within an existing or proposed cluster of tall buildings

Policy KP15 – Climate Change

To mitigate against the effects of climate change and adapt to its impacts, development proposals should take into account the following factors:

- Reducing carbon emissions
- Protecting and increasing carbon sinks
- Adapting to the implications of climate change at both a strategic and detailed design level
- Promoting energy efficiency and increasing the supply renewable energy
- Avoiding areas susceptible to flood risk in the first instance in accordance with the sequential approach set out in national guidance
- Preventing development that increases flood risk and carrying out flood risk in accordance with TAN15.

Supplementary Planning Guidance (SPG)

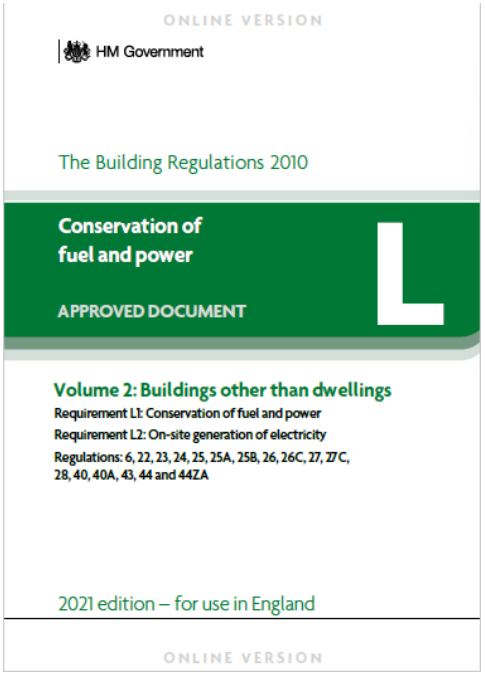
The Council provides a range of Supplementary Planning Guidance (SPG) which comprises detailed guidance on the way in which policies of the LDP will be applied in particular circumstances or areas. All necessary guidance has been taken account of when designing the scheme. The SPGs of relevance to the application are as follows:

- Green Infrastructure (November 2017)
- Managing Transportation Impacts (Incorporating Parking Standards) (2018)
- Safeguarding Business and Industrial Land and Premises (November 2017)
- Planning Obligations (2017)
- Waste Collection & Storage Facilities (2016)

2.3.2 NATIONAL POLICIES

Building Regulations Part L

Part L[3] sets the energy efficiency standards required by Building Regulations. It controls the insulation values of building elements, the allowable area of windows, doors and other openings, air permeability of the structure, the heating efficiency of boilers and the insulation and controls for heating appliances and systems together with hot water storage and lighting efficiency. It also sets out the requirements for SBEM (Simplified Building Energy Model) calculations used within Part L.



[3] HM Government, The Building Regulations 2010, Conservation of Fuel and Power in new dwellings, Approved Document L1A 2013 Edition, incorporating 2016 Amendments

CHAPTER: 3 LOCATION, CONTEXT AND COMMUNITY

The site is located North-West from Cardiff City Centre and is situated immediately adjacent to the Wentloog Corporate Park. It benefits from excellent road links, approximately 2.5 miles North-East from the A4232 and with the A48 (to the West) and M4 (to the North) being in close proximity. The site is also due south of the Cardiff Railway Line.

Site Location - Wider Context

Site Location - Immediate Context

The site itself comprises vacant, undeveloped land in a broadly rectangular parcel. Its boundaries appear to be defined by mature hedging and trees, except for the western and northern boundaries, which are outlined by a watercourse. There is a watercourse which runs

along the Eastern boundary and the site also has an existing pond immediately due South of the site and has no existing site access routes.

3.1 BOUNDARY

The existing surroundings are as below:

- To the north: Newlands Road immediately surrounds the Northern site boundary. Beyond this is the existing site of Renold Couplings and the Cardiff Railway Line immediately situated to the North
- To the east: The Wentloog Corporate Park, including W G Davies and Euroclad Group immediately facing the site
- To the south: Newlands Farm and Balfour Beatty Utility Solutions face the site's southern boundary. Wentloog Avenue is beyond this
- To the west: Newlands Road, with the Great Point Seren Studies and Capital Business Park immediately beyond this.

3.2 COMMUNITY INVOLVEMENT

To better inform the design of the scheme and to mitigate/ manage any concerns of local stakeholders, a public consultation strategy has been developed.

The consultation strategy adopted the following steps:

Erection of a site notice in accordance with article 2C of the order;

- Notice given in writing to adjoining landowners
- Notice given in writing to specialist consultees (Dwr Cymru, Welsh Water, Cadw, The Council's Highways Department, Natural Resources Wales and the Council's Development Management Department)

- Notice given in writing to community consultees (Councillors Bernie Bowen-Thomson, Chris Lay & Michael Michael)

- Draft Planning Application documents made available online via Avison Young's purpose-built website for the consultees and wider community to inspect, and

- Provision of an online form through the above website which can be downloaded, completed and posted or emailed directly to Avison Young.

Process and outcomes have been detailed further within the Statement of Community Involvement.

3.3 FORMAL PRE-APPLICATION ADVICE

A pre-application enquiry was submitted to the Local Planning Authority to enter into early engagement with officers of the Council to discuss the principle of the proposed development and the applicable material planning considerations.

A virtual pre-application meeting was initially held in April 2022 with the following officers of the Council.

CHAPTER: 4 CLIMATE CHANGE

4.1 ADAPTATION

In line with the principles of BREEAM, the building will be designed to consider any potential future changes in climate.

This approach ensures asset resilience and value through considering any risks or impacts associated with any future climate scenarios, such as extreme weather events.

As such the design will take into account needs to respond for:

- Future adaptation
- Maintenance
- Disruption

Various supporting reports and investigations have been and will be developed to consider future scenarios:

- Flood Risk and Drainage Design – considers 40% increase due to climate change
- Energy – reducing Carbon emissions and incorporating LZC technology
- Thermal comfort and thermal modelling

4.2 DESIGNING FOR DISASSEMBLEY AND ADAPTABILITY

The proposed development is speculative in nature at this stage (no tenant contracted), as such the design is for Shell only (building fabric) and some Core elements.

This will mean that any future tenant can fit out the building according to their intended use requirements.

Inherent to the design is a level of adaptability to allow alteration to accommodate alternate/ complimentary uses and to allow future changes such as services refit and split of the office/ warehouse ratio.

CHAPTER: 5 ENERGY & CARBON EMISSIONS

5.1 APPROACH

Minimising energy is considered throughout the design with a target of:

- A rated EPC for base build works (noting the fit out will relate to any prospective tenant)
- Achievement of 2.5m^3/hr/m^2 @ 50pa Air Permeability
- Roof mounted Photovoltaic Panels
- Solar Thermal technology for water heating
- 20% of total parking as Electric Vehicle Charging points

A hierarchical approach to energy consumption, will be adopted:

1. **Be Lean** (Use Less Energy),
2. **Be Clean** (Supply Energy Efficiently),
3. **Be Green** (Use Renewable Energy).

As part of the aspiration to achieve a BREEAM Excellent rating, a mandatory requirement within the BREEAM scheme is to achieve at least 4 of the available 9 scores associated with Reduction of Energy Use and Carbon Emissions: Energy Performance. This target relates to an Energy Performance Ration for New Construction (EPRNC) (BREEAM Calculation method) of 0.4 or greater.

Feasibility for incorporating renewable energy technology will be considered within the “Be Green” stage. This will tie in with the BREEAM requirement to undertake a Low and Zero Carbon (LZC) technology feasibility study. Ensuring that technologies are considered for:

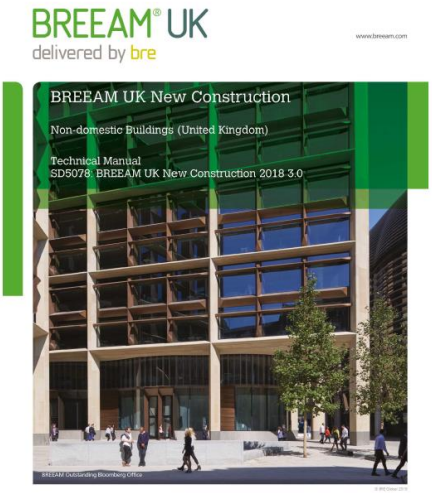
- Viability
- Carbon emissions
- payback

CHAPTER: 6 ENVIRONMENTAL RATING SCHEMES

6.1 ENVIRONMENTAL ASSESSMENT METHOD

The project will target a BREEAM Rating of Excellent.

Carbon Consult Ltd have been appointed as specialist BREEAM Assessors on the project and have conducted a Pre-Assessment exercise at this early stage of the project to generate an indicative scoring scenario and to establish a set of targeted BREEAM scores.



Due to the nature of the project, it will be assessed against a variant of BREEAM, where the assessment criteria are scoped to reflect:

- New build Industrial Unit with ancillary office and external spaces
- Speculative, Shell Only (fit out by tenant and therefore not included within assessment)

6.2 PRE-ASSESSMENT OUTCOMES

Item Categorisation	Description
Targeted	- Known to be within current design - Ties-in with the client design brief - Expected design performance - Standard practice

Potential	- Could be achieved with additional: • Effort • Investigations • Expenditure; and, • Design development - Performance unknown at this stage

The Pre-Assessment demonstrates a set of scores which reflect:

Formal BREEAM assessment and certification requires the presentation of suitable documentary evidence of compliance.

If the scores identified as Targeted and Potential are achieved, the following BREEAM rating levels can be attained.

	Targeted/ Basic	**Plus, Potential**
Newlands Road (Cardiff) Warehouse	70.19%	76.17%

Where the performance thresholds are:

- Very Good >55%
- Excellent >70%
- Outstanding >85%

The Pre-Assessment exercise has also provided the team with understanding of a route to certification, including:

- Compliance timings
- Ownership

Types of documentary evidence required

CHAPTER: 7 LAND USE, ECOLOGY & ARCHAEOLOGY

7.1 LOCATION

The proposed project is on land, which is earmarked as an employment site, the current use of the site is undeveloped agricultural land.

7.2 BIODIVERSITY/ GREEN INFRASTRUCTURE PROVISION

A Preliminary Ecological Appraisal[4] a European statutory site is within 5 km of the survey area, one UK statutory site within 2 km (on site) and four non-statutory sites within 1 km. Impacts may include dust deposition, noise and light pollution. The site is also located within 10 km of a statutory site designated for bats however the impact is considered negligible on these species due to the distance. In addition, the desk study provided records of protected/notable species within 1 km, including: bats, badger, hedgehog, brown hare, otter, amphibians, reptiles, birds, and invertebrates.

The ecology report notes that the site comprises of Scattered trees, Scrubs, Semi-improved neutral grassland, Semi-natural broad-leaved woodland, Tall ruderal and Wet ditch. The report also notes that evidence of otters, aquatic invertebrates and birds were found during the survey.

Scattered scrub interspersed the majority habitat of tall ruderals on the northern portion of the site, south of the wet ditch. The mosaic of habitats on site fall within the boundaries of Gwent Levels SSSI and are therefore collectively a notable consideration in relation to the proposed development. A band of dense scrub enveloped the southern section of semi-natural broad-leaved woodland. It comprised a denser conglomeration of species described in scattered scrub, including willow, silver birch, alder, hawthorn, bramble, dogwood and dog rose. semi-improved neutral grassland ran along the northern site boundary bordering

[4] Preliminary Ecological Appraisal, Newlands Road, Cardiff, Middlemarch Environmental Ltd, 01/10/2021

Newlands Road. The semi-mature and mature scattered trees on site are of intrinsic value as they cannot be easily replaced in the short to medium term.

The survey notes that the wet ditch on the northern side of the boundary is covered with ruderals, scattered scrub, dense scrub and willow woodland. Whilst the wet ditch (reen) is unlikely to meet Habitat of Principal Importance criteria, it forms part of the wider reen and ditch network within the Gwent Levels, providing a myriad of wildlife corridors. Scrub, semi-improved neutral grassland, and tall ruderal are not Habitats of Principal Importance or priority habitats on the Local BAP.

It is noted that additional can be undertaken such as a Preliminary Ground Level Bat Roost Assessment on any semi-mature and mature trees, an Otter Survey of the ditch along the northern site boundary, and a Water Vole Survey of the ditch along the northern site boundary. Precautionary recommendations in relation to ecological protection in relation to bats, amphibians, badgers and nesting birds are recommended.

It is proposed that majority of the existing vegetation including the semi-mature trees and wet ditch will be retained. Any habitat loss through development will be compensated through wildlife beneficial replacement planning and habitat creation. Further enhancement of ecological value of the site will be achieved through provision of landscaping. The proposed landscape includes new trees, bulb planting, amenity grassland, wildflower mix, share tolerant mix and wetland planting. This will compliment and be developed in line with Local Policy such as **EN3: Landscape Protection, EN6: Ecological Networks and Features of Importance for Biodiversity, EN7: Priority Habitats and Species, EN8: Trees, Woodlands and Hedgerows.**

The landscape plan will be developed with BREEAM scores in mind to ensure that the maximum potential is achieved. As such the planting plan will be developed based on local indigenous species reliant solely on precipitation. A construction phase ecological management plan will be developed and will be further adapted post construction to act as an operational ecological management plan.

7.3 CONTAMINATED LAND

A Phase 1 Geo-Environmental Assessment[5] has been developed for the site.

Desktop historic studies show that the site remained as undeveloped fields until 1949 (when it was developed as part of the ministry of transport stores) and then was used historically for industrial purposes including a ministry of transport stores, railway sidings, timber yard and timber pond. By 1966 the site was part of a timber yard (with a timber pond) and railway siding crossing the site in the north.

The Phase 1 survey notes that there is low risk from heavy metals and hydrocarbons. However, a moderate risk is assessed from different forms of contaminations. These contamination sources may access pathways to affect receptors such as horizontal migration in the underlying aquifer, exposure of made ground facilitating dermal contact and ingestion / inhalation of contaminated soils as well as egress of hazardous gas into buildings developed on site.

The eastern portion of the site lies within a Radon Affected Area as defined by the former Health Protection Agency, now Public Health England (between 3 % and 5 % of houses are above the action level). Guidance issued by the Buildings Research Establishment (BRE-211) indicates that basic protective measures are necessary.

It is recommended that a Phase II Intrusive Investigation should be undertaken which includes chemical analysis of soil and groundwater, in conjunction with a programme of hazardous gas monitoring.

[5] Phase 1 Geo-Environmental assessment, Idom Merebrook Ltd, June 2021

7.4 HERITAGE AND ARCHAEOLOGY

Landscape and visual appraisal report[6] notes that the site itself does not contain any designated heritage assets. Within the wider study area (3km from the site boundary) however, the following heritage assets are components of the contemporary landscape:

• Two Scheduled Monuments:

- Relict Seawall on Rumney Great Wharf - located circa 1.19km to the south of the site; and
- Caer Castell Camp - located c.1.3km to the north-west of the site.

• Old St. Mellons Conservation Area (CA), located 1.77km to the north-west of the site.

• Grade II Listed Buildings:

- Longcross Farm, located c.530m to the west of the site; and
- Ty-du and adjoining byre and stable, located c.890m to the east of the site.

Given the intervening presence of distance, landform, vegetation and built form, intervisibility of these features with the site is very limited.

[6] Landscape and Visual Appraisal, Newlands Road, Cardiff, EDP, Mar 2022

CHAPTER: 8 WATER, FLOODING AND DRAINAGE

8.1 DESIGN APPROACH

Minimisation of water usage will cover both the buildings themselves as well as the construction process. **KP5: Good Quality and Sustainable Design, EN10: Water Sensitive Design and EN11: Protection of Water Resources** requires the development to protect the quality and quantity of water and use water sustainably.

8.2 POTABLE WATER USE

Under the BREEAM assessment of a Shell only building the potable water consumption of fixtures and fittings is not assessed, as it is anticipated that any future tenant will install to suit their needs.

The proposed base build for the project will however include provision of WC's and sanitary facilities. These are to be specified for their water efficiency. Water consumption will be monitored through the installation of a water meter which will allow the end user to understand their consumption and help flag any inefficiency in the water distribution system should the unlikely event of leakage be detected.

The water metering system will be linked to a Building Management System able to identify any major water leaks.

8.3 FLOOD RISK ASSESSMENT

EN10: Water Sensitive Design requires the incorporation of Sustainable Drainage Systems wherever feasible, and projects are required to address any risk to water resources. **Policy**

EN14 – Flood Risk requires that a site-specific Flood Risk Assessment (FRA) is developed, and that proposal should seek to reduce flood risk through the creation of multi-functional green infrastructure and sustainable drainage systems.

The Flood Risk Assessment[7] has been undertaken by Craddys in line with relevant legislation and guidance.

As per TAN15 map the site is located in zone C1. With respect to tidal flooding the data.gov.uk states the base level 0.5% tidal event in 2017. The report states that the proposed development site is considered to be defended from tidal flooding up to and including the 1 in 1000-year event.

Furthermore, the site is not currently at risk of surface water flooding. There are no known records of foul sewer flooding within the area. The site lies within an area allocated for development and was assessed as such in the Cardiff SFCA 2009, which concluded a low risk of ground water flooding or reservoir flooding.

While considering Climate Change, the site is considered to be at risk from primarily tidal flooding but is defended from this source by existing coastal defences with at least a 1 in 200-year standard of protection to the site, with residual risks arising from failure of the flood wall or overtopping in an extreme event, or in the future due to sea level rise from climate change.

Mitigation measures include:

- It is proposed to develop the site with a minimum finished floor level (FFL) of 7.17mAOD.
- The proposed FFL is approximately 800-1200mm above the current levels within the proposed building footprint.

[7] Flood Risk Assessment & Drainage Strategy, Craddys, Mar 2022

8.4 SURFACE WATER RUN OFF

According to the Flood Consequence Assessment report, there are currently no known below ground drainage features within the site. The site is bounded by an open watercourse (Newlands Reen), and foul and surface water drainage networks exist within Newlands Road beyond the site boundary. Infiltration of surface water generated by the development will not be viable due to cohesive soils beneath the site.

The surface water drainage discharge rate from the site is to be agreed under the SAB approval process, with Cardiff SAB and NRW IDD, but is likely to be limited to greenfield runoff rates. The system will be designed to have enough storage capacity to prevent flooding for all storm durations up to and including the 1 in 30-year return period event, plus a 40% increase in rainfall intensity as allowance for climate change. MicroDrainage System 1 software will be used to size the pipes and MicroDrainage Simulation and Source Control software will be used to model the integrated below ground drainage system.

The drainage system will also be checked for the 1 in 100-year return period events plus 40%. Any surface water flooding will be retained on the site during these storm events, via ponding on the car park and lorry ramp. Any ponding will not affect the proposed building or access/egress routes.

CHAPTER: 9 WASTE MANAGEMENT

The **Waste Regulations** [8] sets many targets designed to achieve a more sustainable approach to how we deal with waste. The strategy, therefore, promotes the principles of the "Waste Hierarchy" to prevent, reduce, reuse, recycle and recover.

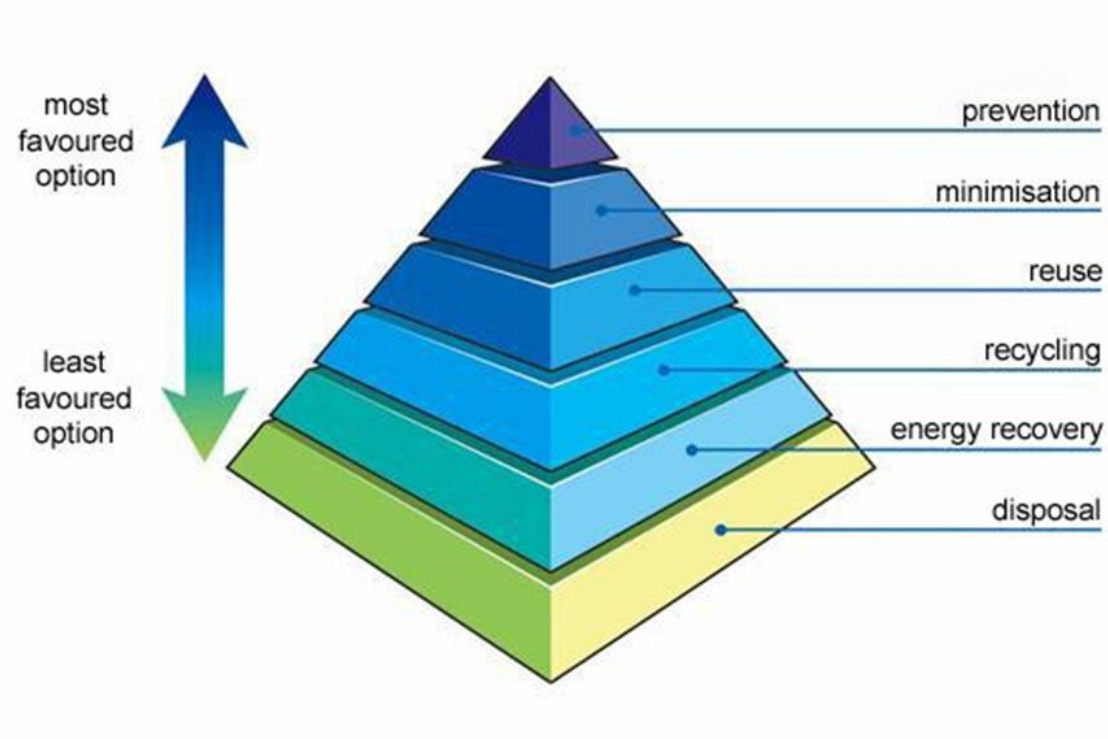


Figure 2: Waste Hierarchy

9.1 MATERIAL EFFICIENCY

A documented approach to Material Efficiency will be established (to link with BREEAM).

This will consider opportunities for:

- Reducing cost as a result of a reduction of material use in design
- Encourage reuse of materials

[8] Environmental Protection, England and Wales, Statutory Instrument No. 988, the Waste (England and Wales) Regulations 2011

- Encourage the use of materials with higher levels of recycled content
- Improve understanding of, and the performance of, alternative design and construction methods that result in lower material usage and waste levels.

9.2 CONSTRUCTION: RESOURCE MANAGEMENT PLAN/ SITE WASTE MANAGEMENT PLAN

Tying in with both the requirements of Local Plan **Policy KP12 – Waste, W2: Provision for Waste Management Facilities in Development** and performance against BREEAM the contractor will develop a combined Resource Management Plan (RMP) and Site Waste Management Plan (SWMP) which will consider:

- Materials optimisation
- Reduce waste generated on site
- Develop and implement procedures to sort, reuse and recycle construction and demolition waste on and off site
- Set targets for maximum waste production
- Establish best practice waste handling options
- Limit waste to landfill
- Monitoring waste produced

See also **Construction Section** of this report

9.3 RECYCLING OF OPERATIONAL WASTE

The base build will incorporate features to allow the future tenants to operate a full waste management and recycling policy, including a designated area within the external hard landscaping for refuse and recycling storage and collection. This will be sited to allow ease of collection for waste handling.

CHAPTER: 10 TRANSPORT

Key policies of the Local Plan relevant to transportation include **KP5 – Sustainable Transport, T1 – Walking and Cycling and T5 – Managing Transport Impacts** which supports travel management schemes and development proposals that reduce congestion, encourage an improved and integrated transport network and allow for a wide choice of modes of transport as a means of access to jobs, homes, leisure and recreation, services and facilities.

Complimentary policies exist such as **Policy T1-T9** which supports the reduction of local congestion and contribute to local traffic management by managing parking and providing opportunities for cycling, walking, increased public transport or emerging transport technologies.

10.1 TRANSPORT ASSESSMENT

A Transport Assessment[9] has been developed for the site, this considers both the accessibility of the site for workers by car and by more sustainable modes of transport and also considers the impact of the operational activities of the building on the local transport infrastructure.

10.1.1 STAFF ACCESS

Access to the site is proposed from two access points onto Newlands Road. The southern access would provide entry to the service yard and be for lorries only. Pedestrian access is next to the lorry entry. Due to the width required for lorries to use the access, a pedestrian island is located to provide pedestrians a safer crossing route. The other access is for cars only and to the east of the lorry access.

The strategy will comply with national policies such as Planning Policy Wales and TAN18.

[9] Transport Assessment, Land off Newlands Road, Cardiff, Key Transport Consultants, March '22

Car and motorcycle parking will be provided in line with Cardiff City Council Parking standards and cycle parking will be approximately double the required level. 58 Car parking spaces are proposed which includes 3 priority spaces for car-share, 3 accessible spaces and 12 spaces with EV charging points. In addition, 20 cycle spaces and 5 spaces for powered two wheelers are proposed.

10.1.2 HGV/ OPERATIONAL ACCESS

The southern access would provide entry to the service yard and be for lorries only. The proposed access for HGV's associated with the operation of the facility are noted as suitable both in terms of dimensions of road and junctions and traffic flow. 6 HGV parking spaces are proposed.

10.2 LOCAL AMENITIES

Other developments in close proximity including a hotel, a grocery store, corporate park etc. Beyond this, the site is well-served by facilities and services associated with the Cardiff city.

10.3 FRAMEWORK TRAVEL PLAN

A Framework Travel Plan is being developed for the site.

The Plan will cover the following high-level objectives for the site:

- Promotion of the plan and the benefits which can be realised
- Reducing the number of employees accessing the site via single car occupancy
- Increase the use of sustainable transport use
- Promotion of healthier lifestyle for employees through encouraging active sustainable transport use

- Committing to managing the impact of travel through provision of information and operational management.

CHAPTER: 11 HEALTH

11.1 WORKING ENVIRONMENT

Whilst a major part of ensuring a healthy working environment for building staff will relate to the tenant fit out of the building, the base build will establish opportunities for healthy working including:

- Providing a well day-lit office environment, will access to views out via high quality glazing
- Ensuring an acoustic environment which is not impacted by plant noise
- Light levels in line with best practice standards (e.g., CIBSE)

11.2 SAFETY AND SECURITY

Site access for HGVs is controlled by a security gatehouse, ensuring a secure perimeter to the warehouse area. Staff parking, whilst sharing the same entrance to the site, is offset from the HGV loading/ unloading area. Pedestrians using the car park have access directly to the office area and will not need to walk through any area where HGVs may travel.

Cycle spaces are located adjacent to the office entrance to ensure they are within view and therefore increase security.

11.3 SAFE AND HEALTHY SURROUNDINGS

The green boundary of the site, including the existing Reen and Attenuation Pond, allows for a pleasant working environment and provides outdoor space for staff.

CHAPTER: 12 MATERIALS

Materials within a development will be sourced to have minimal environmental impact and to be as sustainable as possible. The materials for the project will reflect the local context.

General specifications for materials include:

- Trapezoidal built-up metal cladding system
- Aluminium framed windows to office areas with aluminium curtain walling

Other building and external landscaping surfaces to be designed for durability and longevity due to the intended nature of use of the building e.g., brushed concrete to service yards and permeable block pacing to car parks and footpaths around the office.

12.1 EMBODIED IMPACT

- Materials Specification - The building fabric and materials specified will have a low environmental impact. Materials may include reclaimed or recycled materials where appropriate. The BRE's Green Guide[10] will be used to help procure materials with low embodied impact (Green Guide A or A+ rated materials). For example, Mineral Wool insulation.
- Where practical and suitable, the Recycled Content of Materials will be considered
- A full Life Cycle Assessment of the main building materials, in line with IMPACT software and the BREEAM requirements has been undertaken.

12.2 SUSTAINABLE SOURCING

Where practical, materials will be responsibly sourced including 100% of the timber to be legally and responsibly sourced e.g., FSC Timber

[10] Green Guide to Specification, https://www.bregroup.com/greenguide/podpage.jsp?id=2126

12.3 MATERIALS EMISSIONS

Volatile Organic Compounds (VOCs) are organic chemicals that have a high vapour pressure at ordinary room temperature. As part of the scheme and wider development proposal, a commitment to use low VOC paints has been indicated. Low VOC products bring a healthier internal air quality environment and also have a benefit to construction workers in terms of health and safety. Internal paints which have a low solvent / low VOC content will be used.

Insulation materials for both fabric and services Zero Ozone Depletion potential (ODP) and Global Warming potential (GWP) will be specified.

12.4 DURABILITY AND RESILIENCE

In line with the requirements of BREEAM a Durability and Resilience study will be developed to ensure designing for longevity.

Robust building elements will be included to suit the intended nature of use, such as building protection to docking bays, heavy duty finishes internally, heavy duty hard surfaces for HGV parking and loading/ unloading.

CHAPTER: 13 OPERATIONAL POLLUTION

13.1 NOISE

A site-specific noise impact assessment in line with BS4142:2014 will be developed by a Member of the Institute of Acoustics (MIOA).

A survey of environmental noise levels on the site and surrounding area will be undertaken which will be coupled with noise modelling based on intended/ expected operation of the facility.

13.1.1 PLANT NOISE

The results of this modelling have been used to set plant noise limits to meet the respective requirements of the BREEAM assessment, achieving 5dB below background sound level at nearby sensitive receptors.

13.1.2 VEHICLE NOISE

An acoustic consultant has previously undertaken an operational noise assessment of a similar facility in terms of vehicle movements (including HGV Chiller units, HGV movements, unloading/ loading).

This modelling has been compared against background noise levels usually result in indicating that noise associated with the operational activities of the facility would fall below the Low Observed Adverse Effect Level (LOAEL) of the NPPG and NPSE.

13.2 LIGHT

All external fittings will be low energy and controlled to avoid their use during daylight hours. The use of time clocks and PIR sensors may be considered where appropriate.

Security lighting will be considered to ensure a safe environment for workers, but also to minimise obtrusive light pollution to surrounding properties.

13.3 WATER COURSE

Due to the nature of intended use and proximity of water course, oil/ petrol interceptors will be incorporated into the drainage system to mitigate against Pollution risk.

CHAPTER: 14 CONSTRUCTION

As noted throughout this statement, a truly Sustainable Development requires the close interaction of the Design Team and Contractor to ensure the most sustainable decisions are made.

Construction Phase impacts can be mitigated through the following areas:

14.1 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

In line with Local Plan **Policy KP5 – Good Quality and Sustainable Design**, a Construction Environmental Management Plan (CEMP) is to be developed (to be secured by planning condition). This will primarily aim to reduce any adverse impacts from construction on local sensitive receptors.

Areas covered within the CEMP will include:

- Air quality
- Water quality and drainage
- Noise and vibration
- Geology and soils
- Landscape and visual impact
- Nature conservation
- Archaeology and cultural heritage
- People and communities
- Waste
- Energy
- Transport
- Materials

The CEMP will be structured to cover:

- Policy and planning,
- environmental impacts,
- risks and mitigation,
- procedures for monitoring construction,
- pollution control and
- environmental risk

14.2 CERTIFICATION

At each stage of the Construction phase, the lead contractor is to be considered for their Environmental Accreditation e.g., ISO 14001 Environmental Management Systems.

14.3 UTILITY MONITORING

14.3.1 ENERGY

Energy efficiency measures can be made through the construction phase of the project. Energy on site can be metered and recorded and best practise benchmarks sought. Additionally, energy and carbon can be kept to a minimum where possible through the promotion of using a local workforce with the use of public transport encouraged.

Targets will be developed, and data recording processes established to monitor performance.

14.3.2 WATER

Water use for the construction phase should be metered separately and water efficiency should be considered for site welfare facilities e.g., low flush WCs, low flow taps and potentially rainwater harvesting.

Targets will be developed, and data recording processes established to monitor performance.

14.4 MONITORING TRANSPORT

Development of a Construction Phase, Green Travel Plan, considering:

- Access to the site
- Routes
- Timings of deliveries
- Waste Collection
- Staff access and minimising impact

Monitoring of vehicles to and from the site specifically those carrying materials and removing waste, allowing the associated Carbon Emissions to be established.

14.5 SUSTAINABLE PROCUREMENT POLICY

A sustainable procurement policy is to be developed in line with the requirements of BREEAM.

This will cover the following areas:

- Sustainable/ legal sourcing of timber used in both temporary and permanent works e.g., FSC Timber, BES6001
- Sustainability Aim, Objectives and Strategic targets
- Availability of locally supplied construction products
- Checking and verification of sustainability credentials of products/ suppliers
- Processes to record and check certification of products

14.6 POLLUTION PREVENTION

Good practise measures such as the Environment Agency's Pollution Prevention Guidance (PPGs)[11] and the updated Guidance for Pollution Prevention (GPPs) would also be recommended through the dissemination of appropriate tool-box talks.

[11] Environment Agency, Working at Construction and Demolition Sites: PPG6, withdrawn 2015 – update in progress

To minimise local pollution during construction, the following measures would be recommended:

- Pollution prevention measures and environmental controls to be included in a site environmental management plan, a site-specific induction, as well as delivery of relevant tool-box talks
- Controls in place to control construction dust
- Safe and secure storage of materials
- Adoption of best practice pollution prevention guidance
- Adoption the best practicable means to reduce the effects of noise, vibration, dust and site lighting. This can be demonstrated through a construction management plan.
- During construction works, any lighting will be kept to a minimum. Task specific lighting will be reviewed and monitored accordingly.
- Adoption of good practice dust control measures

14.7 CONSTRUCTION WASTE MANAGEMENT - SITE WASTE MANAGEMENT PLAN (SWMP)

Due to the nature of the project site, careful planning will be required with respect to deliveries and storage of materials and storage of waste prior to collection/ removal.

A Site Waste Management Plan (SWMP) (to be secured by planning condition) would ensure construction waste is monitored, recorded and minimised within each of the European Waste Catalogue (EWC)[12] groups. This plan will outline how the project can reduce the amount of waste generated and how materials can be diverted from landfill.

Location of skips should be considered to reduce any risk to surrounding neighbours and local traffic. The use of comingled waste could be considered before management and separation off-site. Recycling and waste bins will be kept clean and clearly marked in order to avoid contamination of materials.

[12] European Commission, European Waste Catalogue, Decision 2000/532/EC

CHAPTER: 15 CONCLUSION

This Sustainability Statement in combination with the BREEAM Pre-Assessment, demonstrate the sustainability credentials and approach for the project.

The project is targeting a BREEAM Excellent rating.

The targeted BREEAM rating carries with it a number of actions which serve to reduce the impact of the proposed building and improve its sustainability including:

- Minimizing energy use and therefore reduce Carbon Emissions
- Sustainable sourcing of materials
- Considering embodied impact of materials
- Managing the construction site in an environmental conscious fashion
- Mitigating and enhancing the local biodiversity
- Taking into account future climate events with respect to design elements such as flood risk
- Mitigation of local pollution