NET WORLD SPORTS

For

Mauna Kea Limited

B2/B8 Development on Land to the South of Bryn Lane, Wrexham Industrial Estate

Design & Access Statement



Ref:

2042.NWS-LS_DAS_Ver.1.5

Author

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PACE | ARCHITECTURE

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1|1 Application Summary

This Design and Access Statement (DAS) has been prepared by **Pace Architecture ltd,** with Landscaping input from Nicholsons GB ltd. to accompany a Full Planning Application being submitted by the applicant, Mauna Kea Limited.

The development consists of a manufacturing/warehouse building (Use Classes B2/B8) with ancillary office space (Use Class B1a), associated landscaping, access roads, parking and servicing.

This submission proposal is based on a thorough assessment of the site's immediate and wider context, undertaken through desk-based studies, research, site visits, observations and consultations.

The purpose of the DAS is to explain the design evolution of the proposed development in terms of amount, scale, layout and appearance along with integrated landscape proposal.

This DAS is set out in the following sections:

- **2|0 Context** - provides an analysis of the application site.
- **3|0 Design** - describes the scheme in terms of use, amount, layout, and appearance.
- **4|0 Access** - details of vehicle & pedestrian access, public transport, and inclusive access.

1|1.1 The Applicant

Mauna Kea is the Applicant. The occupier, Net World Sports, is a leading international supplier of sports equipment. They offer a wide range of products for various sports, including football, cricket, tennis, golf, and many others.

Founded in 2009, the company has grown rapidly and now operates from a large facility in Wrexham, UK. They are known for their high-quality products and fast delivery, serving customers in over 100 countries.

1|1.2 Applicant Requirements

To accommodate project business growth, Planning permission is now sought to satisfy the following requirements:

- To achieve BREEAM 'Excellent' accreditation
- Minimum 11,000m2 high reach warehousing/manufacturing with office accommodation
- Min. internal height of 23m height at underside of haunch
- Use Class B2/B8
- Dynamic Appearance to compliment Net World Sports' dynamic business.
- Retain existing access from Bryn Lane
- Preserve existing ecology & arboriculture

1|2 Applications Drawings

2042 . P . 001 – Site Location Plan
2042 . P . 002 – Existing Site Plan
2042 . P . 004 – Proposed Site Plan
2042 . P . 005 – General Assembly Ground Floor Plan
2042 . P . 006 – Office Plans
2042 . P . 007 – Proposed Elevations
2042 . P . 008 – Proposed Sections
2042 . P . 009 – Proposed Demolition Plan
2042 . P . 010 – General Assembly First Floor Plan
2042 . P . 011 – General Assembly Second Floor Plan
2042 . P . 012 – Proposed Roof Plan

2|0 Context

2|1 Site Location

The site is located to the northeastern part of Wrexham Industrial Estate, approximately 4.5 km north-east of Wrexham town centre, at National Grid Reference SJ 38444 50770.

The Wrexham Industrial Estate
Wrexham Industrial Estate is bound by Bryn Lane to the north and a range of employment uses to the east, west, and south. Adjacent uses include warehouses used for leisure, distribution, manufacturing.



Figure 1- Wrexham Industrial Estate Aerial View

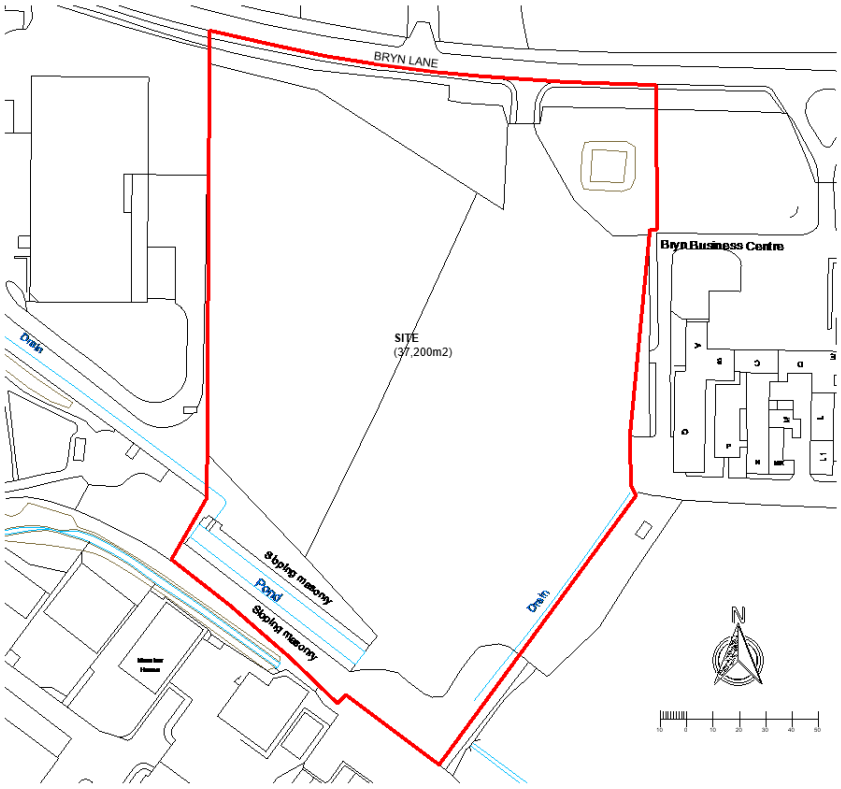


Figure 2 - Site Location Plan

2|2 Existing Site

The site covers an area of approximately 3.72 hectares (ha) and currently comprises of grassland (two fields) with trees along the northern and eastern boundaries. Access to the site is via a gate off Bryn Lane, which marks the northern site boundary.

There are existing industrial developments to the west and east of the site, with the Industrial Estate lying to the south-west. To the north is a residential and farm property ('Little Acorns'), which is surrounded by fields.

The Site was historically used for manufacturing purposes and has since become grassland, which was previously grazed, alongside vegetation and trees. Other features on site include an area of slopping masonry forming a drain in the south-western corner, a disused concrete bunker in the north-eastern corner, and redundant fencing.

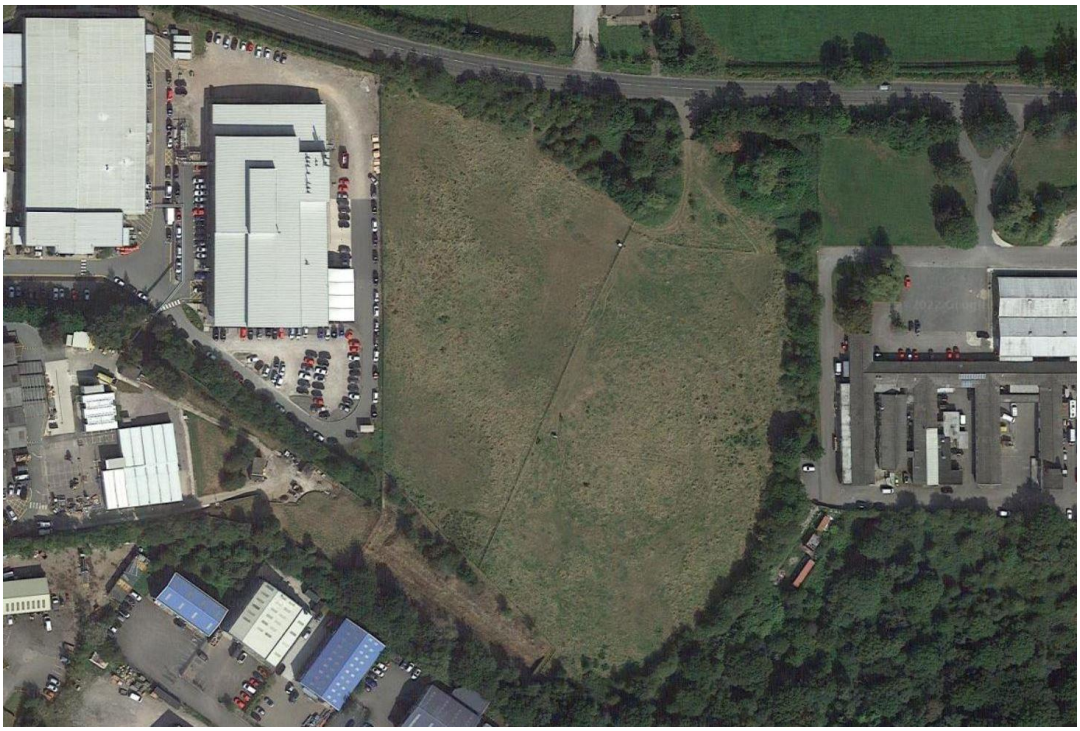


Figure 3 - Site Aerial View

2|2.1 Existing Site Photos



Figure 4 - Existing Site Access from Bryn Lane



Figure 5 - view east from site centre



Figure 6 - view west from site centre

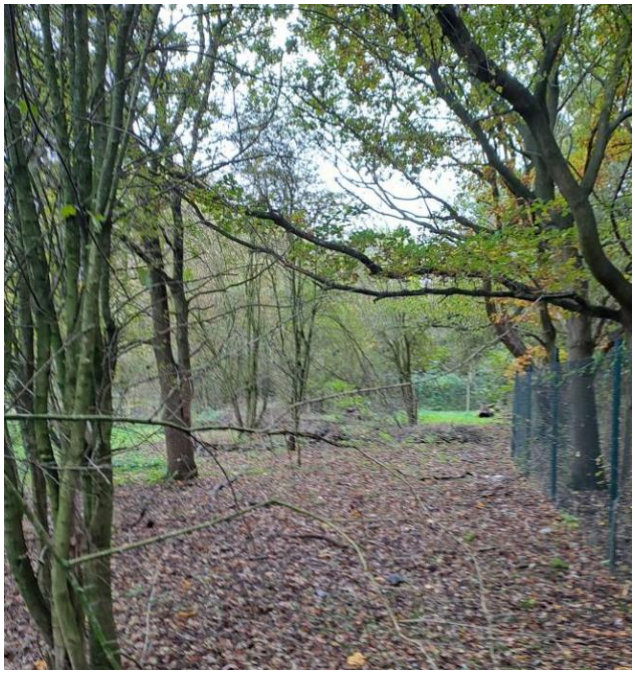


Figure 7 - view along west boundary



Figure 8 - Concrete structure to be removed



Figure 9 - View south towards drain



Figure 10 - View of drain to south



Figure 11 - ditch on eastern boundary

2|2.3 Existing Site Constraints & Opportunities

Fig. 12 illustrates the primary considerations and opportunities for enhancement within these proposals. Subsequent sections will elaborate further on each topic.

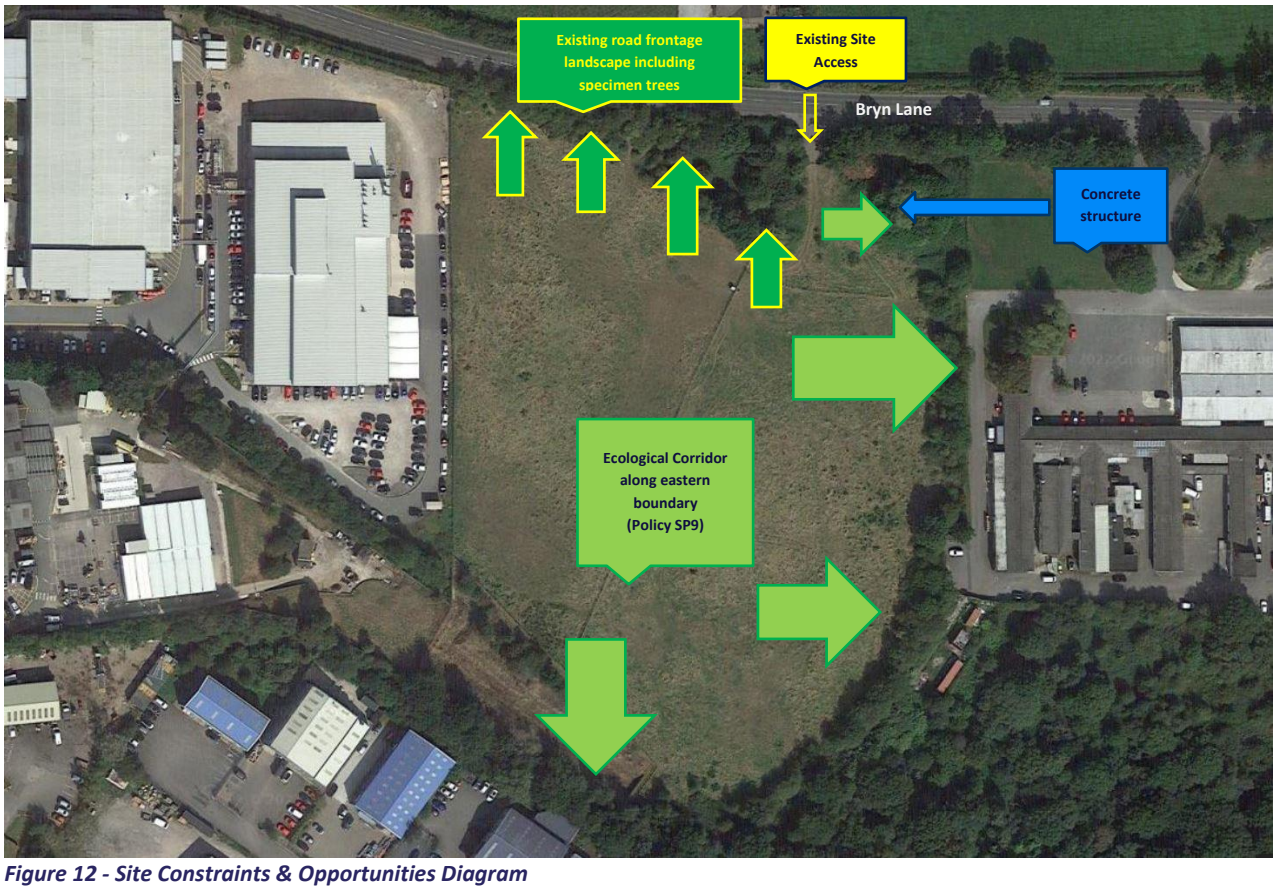


Figure 12 - Site Constraints & Opportunities Diagram

2|2.4 Existing Arboriculture

The submitted Arboriculture Survey
Identified 12 individual trees and 8 tree groups

Table 1 - Surveyed tree summary

	Ret. Cats.	Tree/Group Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	'A'	T1	*1 Trees*
	'B'	T2, T11, T12 G1, G6*	*3 Trees* *2 Groups*
Those of a low quality that should not be considered a significant constraint to development	'C'	T3, T4, T5, T6, T7, T8, T9, T10 G2, G3, G4*, G5, G7, G8	*8 Trees* *6 Groups*
Those that should be removed for sound management reasons regardless of site proposals	'U'	-	-
			= 12 Trees & 8 Groups in total

*Note: Trees/groups denoted with an asterisk are located on, or partially located on, areas of neighbouring third-party owned land

2|2.5 Ecology

The submitted EcIA states;

' There are parcels of trees and scrub that have potential for foraging birds, located in east, south and west, which should be retained or enhanced where possible as part of the development. There is potential for amphibians ranging, badgers foraging but not breeding, bats, nesting birds, reptiles, and hedgehog to be present within the site'.

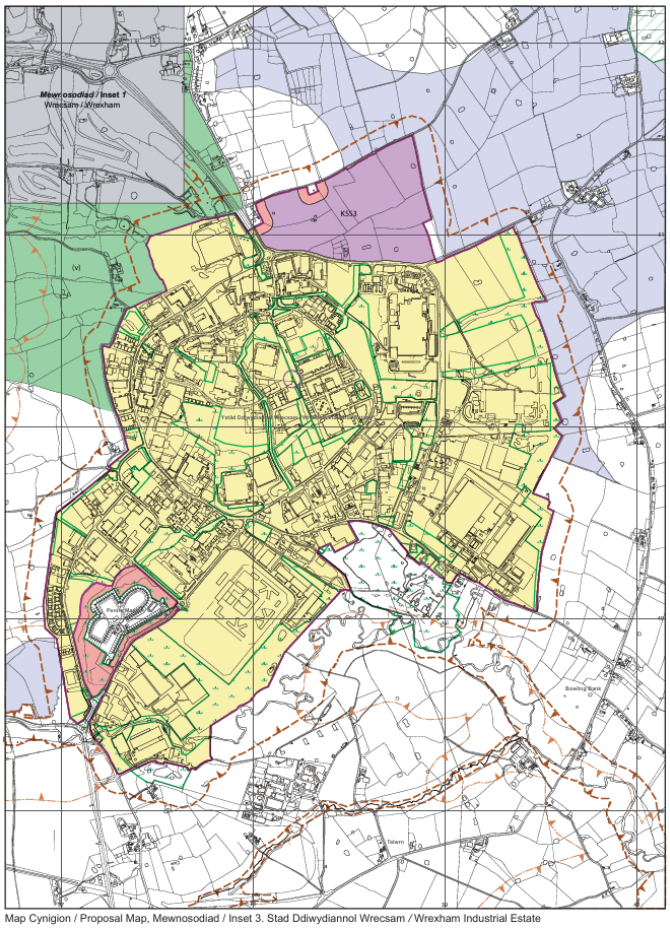
Strategic Ecological Network (Policy SE9)

This Strategic Ecological Network occupies the west and south boundaries. This is protected within the UDP by Policy SP9. Policy SP9 seeks to protect a strategic ecological network across the estate which is detailed further in Wrexham Industrial Estate: Green Network supplementary planning guidance.

The corridor is shown on excerpt below in FIG 3 '*Map Cynigion / Proposal Map, Mewnosodiad / Inset 3. Stad Ddiwydiannol Wrecsam / Wrexham Industrial Estate'*

Policy SP9 States:

'Wrexham Industrial Estate as shown on the proposals map is the County Borough's Key Business Sector Area and will be the primary focus for new employment development over the plan period for class B1, B2 and B8 employment. Land is also protected on the estate for a strategic ecological network for a number of local, national and internationally protected species and habitat.'



Map Cynigion / Proposal Map, Mewnosodiad / Inset 3. Stad Ddiwydiannol Wrecsam / Wrexham Industrial Estate

Figure 13 - SP9 Masterplan - (Inset 3)

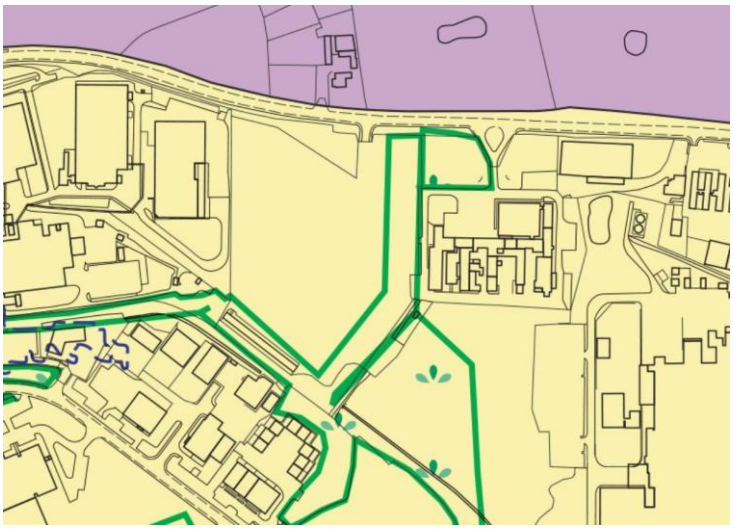


Figure 14 - SP9 Ecological Network

2|4 Wider Context

2|4.1 – Surrounding Businesses

Kellogs
Kellogg's cereal Factory occupies a substantial footprint to the south-east of the Site where brands such as All Bran, Special K & Bran Flakes are produced. Currently approximately 480 people are employed at the site and operates 24/7.

Wockhardt
Wockhard specialise in the manufacture of sterile injectable medicines. Established in 1950, the facility covers an area of 16,000 square meters & employs around 500

Bryn Business Park
Bryn Lane Business Park is home to a variety of companies involved in manufacturing, distribution, and other industrial activities.

Abbey Road Estates
This estate is home to a diverse range of businesses, including manufacturing, distribution, and service companies.
Some notable businesses on Abbey Road include:

- Limpet Labels UK Ltd: Specializes in commercial printing services2.
- Dragon Engineering (North Wales) Ltd: Provides engineering services2.
- Wrexham Furniture Warehouse: Offers a wide range of self-assembly furniture products3.

Forthcoming Proposals - Utopia City



Figure 15 - Utopia City Masterplan

Utopia City is an ambitious development project planned for Wrexham. The project aims to transform a 200-acre site into a vibrant business park, featuring 18 mixed-use units, a hotel, a petrol station, and drive-thrus. This is an allocated site within the Local Development Plan and is subject to a live planning application which is pending determination by the Council.

The development is designed to support local businesses, attract new enterprises, and create thousands of jobs. It will include industrial, logistics, storage, manufacturing, and leisure facilities, all set within a landscaped environment that promotes health and wellbeing.

According to press releases, the community & Local businesses can benefit from the Utopia City development in several ways:

Increased Foot Traffic: The mixed-use nature of the development, including retail, leisure, and hospitality facilities, will attract more visitors to the area, potentially increasing customer bases for local businesses.

Business Opportunities: With the inclusion of industrial, logistics, and manufacturing units, there will be opportunities for local businesses to collaborate, supply, or provide services to new enterprises moving into the area.

Job Creation: The development is expected to create thousands of jobs, which can boost the local economy and increase disposable income in the community, benefiting local shops and services.

Enhanced Infrastructure: Improved infrastructure, such as better roads and public transport links, can make it easier for customers and employees to access local businesses.

Community Engagement: The landscaped environment and focus on health and wellbeing can foster a sense of community, encouraging local residents to support nearby businesses.

2|4.2 Site Context Photographs



Figure 16 - View West along Bryn Lane



Figure 17 - View of North East Site Boundary from Bryn Lane



Figure 18 - View of entrance to Bryn Business Centre. Kellogs visible in distance.



Figure 19 - View of Wockhardt buildings view from Bryn lane



Figure 20 - View from Abbey Road with site southern boundary in distance

2|5 Guiding Policies

The following Policies and guidance notes have been referenced throughout the design process. For more details please refer to submitted Planning Statement completed by '*Carter Jonas*'.

National Policies:
Planning Policy Wales 11 Chapter 6 – as updated in October 2023
Technical Advice Note 5: Nature Conservation and Planning
Technical Advice Note 12: Design
Technical Advice Note 18: Transport
Technical Advice Note 23: Economic Development

Development Plan policies:
Local Development Plan

Strategic Policies
SP2 Location of Development
SP5 Planning Obligations
SP8 Economic Growth Employment and Enterprise
SP9 Wrexham Industrial Estate
SP11 Transport and Accessibility
SP13 Health and Wellbeing
SP14 Natural Environment
SP18 Climate Change
SP19 Green Infrastructure

Topic, Criteria and Area Based Policies
EM1 Protection of Existing Employment Land
NE1 International and National Nature Conservation Designations
NE3 Trees, Woodlands and Hedgerows
NE6 Waste Water Treatment and River Water Quality
DM1 Development Management Considerations
T1 Managing Transport Impacts
T2 Active Travel
RE1 Development and Renewable Energy/Low Carbon Technology

LOCAL PLANNING GUIDANCE NOTES (LPGN)
LPGN06 Access to and use of buildings
LPGN09 Landscape and Development
LPGN15 Cycling
LPGN16 Parking Standards
LPGN17 Trees and Development
LPGN24 Designing Out Crime
LPGN29 Employment Development and Nature Conservation
LPGN30 Design
LPGN32 Biodiversity and Development

3|0 Spatial & Developed Design

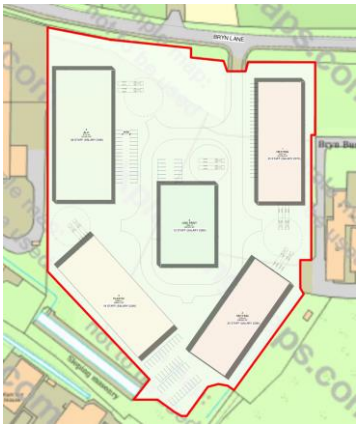
3|1 Design Development

Preliminary Enquiry feedback received in August 2024 states:

'The site layout would be generally consistent with that of other developments in the locality. It is also assumed that the proposed buildings would be similar in appearance to existing industrial buildings on nearby sites. As such there would be no concerns about design.'

The submitted proposals have taken on board feedback and evolved through the investigation and consideration of the site constraints and opportunities. The following summarises design progression.

Initial concept
High level feasibility sketch for small units in tandem with a single unit option. Sketch drawn prior to client brief definition & consultant reports/investigations.
Building heights – 15m ridge for smaller unit option



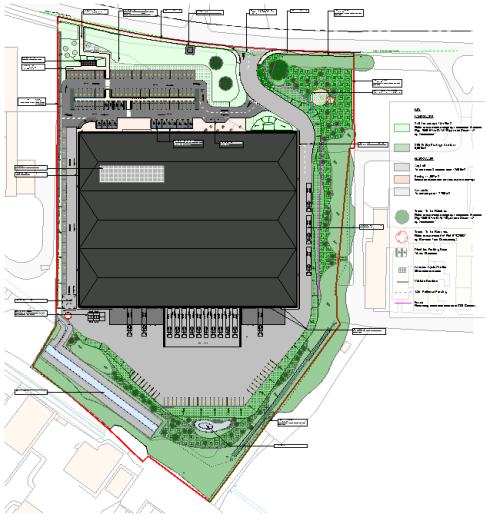
Single unit concept
Design path selected as aligned best with client requirements. Drawings identifies of SP9 corridor & road frontage planting as major constraints. Building positioned accordingly to mitigate impingements.
Building heights – 40m ridge for a large single unit to maximise storage/ manufacturing capacity utilising innovative racking/manufacturing solutions.



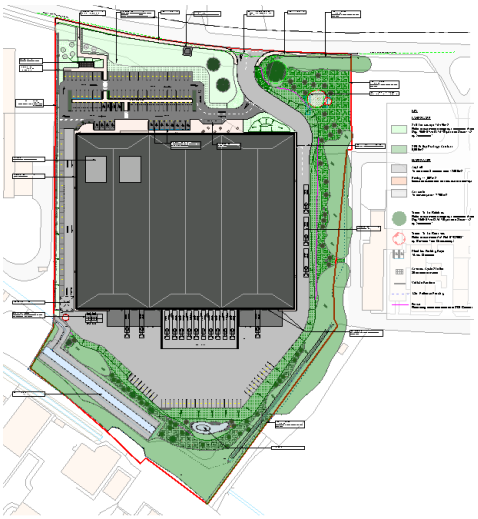
Developed Design
Site access widened to cater for HGV safe access/egress, car parking provision aligned to local policy requirements. Delivery yard reduced to increase area for ecological mitigation.
Building heights – Reduced to range of 28-35m ridge to reduce visual impact. Height considered incongruous to immediate context.



Pre-Application Consultation Proposals
Site access adjusted to mitigate harm to existing specimen trees on northern boundary with Bryn Lane (T1 & T11).
Pedestrian/cycle path route adjusted to minimise impact on existing frontage landscape.
Wildlife pond added.
Building heights – Further reduced to 26m to ridge. Considered a balance between viable high storage/manufacturing facilities and consideration of immediate context.



Current Proposals
Only change is the roof pitch orientation which is to accommodate a more efficient column arrangement internally. The solar panel arrangement also changes slightly as a result.
Building heights – Remains at 26m to ridge.



312 Proposed Quantum of Development

The proposed development will feature a total of 14,564m2 of employment space, designated for general industrial (B2) and storage/distribution (B8) uses, along with additional office space (B1a).

Informed by 'Planning Guidance Note 16', the site will include 146 car parking spaces, 15 of which will be reserved for disabled parking. Additionally, there will be 30 cycle parking spaces housed in an external cycle store. Disabled Parking bays will be provided at 10% of the gross parking provision.

The building will be serviced by 10 No. HGV levelled dock doors in addition to 5 No. level access roller shutter doors. This is commensurate to the size and capacity of a B2/B8 unit within the Wrexham Industrial estate.
HGV parking on the estate problematic within the industrial estate, however sufficient waiting and parking areas are dedicated so that no 'on-street' waiting need occur to service these proposals.

The development will also incorporate new landscaping and maintain a Strategic Ecological Network around the southern and eastern edges of the site. Access to the site will be improved with an enhanced existing entrance off Bryn Lane.

A new substation is proposed on Bryn Lane to service the new unit. It is located away from specimen trees' root protection but within required proximity to proposed building. It is also situated to minimise impact on Highway Visibility splays to assist with safe egress from the site.

See *Table 2* below for a summary of proposed areas.
See *Table 3* below for projected employee numbers.

Table 2 - Proposed Areas

INTERNAL AREAS	
Name	Area
Ancillary	618 m²
Circulation	1070 m²
Office	1375 m²
St/Serv	371 m²
Warehouse	11130 m²
	14564 m²

GEA	
GF	12,605m2
FF	1,287m2
SF	1,287m2
TOTAL	**15,179**

Table 31 - Employee Numbers

Employment Density Matrix Building Occupancy	
Based on GEA & National Distribution Centre	
Warehouse	1/90m2 123 Persons
General Office	1/12m2 115 Persons
Total	**238 Persons**

3|3 Proposed Building Use

The proposed building use is for manufacturing/warehouse distribution to support Net World Sport's wider business aspirations.
The offices are ancillary/complementary to manufacturing & warehouse use, which is similar to the successful model in use at the Bryn Lane HQ

3|4 Layout

3|4.1 BREEAM

As a purchase condition imposed by the Welsh Assembly (previous landowners), these proposals must achieve BREEAM 'Excellent' accreditation.

BREEAM (Building Research Establishment Environmental Assessment Method) is a leading sustainability assessment method for buildings and infrastructure.

BREEAM evaluates various aspects such as energy use, water efficiency, health and wellbeing, pollution, transport, materials, waste, ecology, and management processes.

Buildings are rated on a scale from Pass to Outstanding based on their performance against BREEAM criteria.

BREEAM Design Requirements include:

- Dedicated cycle & pedestrian routes
- Segregated car parking & delivery routes
- Dedicated staff outside space
- Enhanced cycle parking provision
- Dedicated cycle showers, changing and locker provisions
- Minimum office daylight standards
- Office employee window view provision
- External Employee Space
- Staff drop-off point

- Building resilience, protection and maintenance measures
- To achieve minimum Energy Performance targets
- Incorporate Renewable Technologies – (south facing roof slope preferable)

3|4.2 Proposed Site Layout

The following existing site considerations have informed the site layout:

- Ecological Network Corridor (Policy SP9)
- Existing Structural Landscape & Arboriculture
- Existing Site Access
- Existing redundant concrete bunker

In consideration of the above constraints and opportunities, the proposed site plan (Fig.21) has evolved. In general, the layout balances ecology & economic development aspirations with a building footprint that creates flexibility for manufacturing or warehousing uses.

The footprint is set back from Bryn Lane to allow space for employee parking and offices at the front elevation, allowing the rear for functional delivery spaces e.g. dock levellers, waste collection etc. The extensive yard efficiently takes utilises the irregular southern area of the site.
HGV movement through the site is controlled by traffic lights/barriers to minimise the width required for manoeuvring around the building. This measure creates space efficiency for a greater provision of mitigation space.

To provide for safer access/egress, the site access has been widened and bell mouth radii increased. To protect existing specimen trees the access has been adjusted westwards.

The yard access road which runs along the east elevation creates a boundary between the unit function and the ecological corridor, which is further segregated by a fence discouraging employee intrusion.

Pedestrian and cycle access is via a path in the northwest corner of the site which directly accesses internal paths and secure cycle shelters. The pathway through the existing landscape buffer has been carefully selected to ensure minimal interruption. The pedestrian/cycle site access directly links to existing footways on Bryn Lane.

New landscaping to enhance biodiversity & retention of a Strategic Ecological Network around the southern and eastern perimeter of the Site is proposed. (*Refer to Section 3.7 below*).

Within the site demise a configuration of hard and soft landscape surface treatments have been arranged to provide linking footpaths, access roads and associated parking to the Warehouse & Office functions. Scheme proposals also include soft landscape treatment to the development periphery which will include ecological enhancements. See *Fig 21 below*.



Figure 21 - Proposed Site Plan

3|4.3 Building Layout

BREEAM places a strong emphasis on health and wellbeing, recognizing the significant impact that buildings can have on the comfort, health, and productivity of their occupants. Here are some key aspects of the health and wellbeing category in BREEAM assessments:

Key Areas of Design Consideration:

- Indoor Air Quality: Ensuring good air quality by controlling pollutants and providing adequate ventilation. This includes managing volatile organic compounds (VOCs) and other indoor pollutants.
- Thermal Comfort: Designing buildings to maintain comfortable temperatures throughout the year, considering factors like insulation, heating, and cooling systems.
- Lighting: Maximizing natural daylight and ensuring appropriate artificial lighting to reduce eye strain and improve mood and productivity.
- Acoustic Performance: Minimizing noise pollution and ensuring good acoustic conditions to enhance concentration and reduce stress.
- Visual Comfort: Providing views to the outside and ensuring that spaces are visually appealing and comfortable.
- Active Design: Encouraging physical activity through building design, such as incorporating stairs and providing facilities for cyclists.

The office layouts have been designed to response to the above BREEAM requirements, and those of the client. (See below *Figs. 22-24* which show the office accommodation plans).

The office outlook faces north over the car park and towards Bryn Lane, taking in a view of the landscape planting. Offices are situated to minimise travel from the site access and the employee parking, cycling & walking routes. This also ensures a

significant space separation and with that impact of noise from HGV traffic & warehouse/manufacturing activities.

Support of sustainable travel is a keystone of BREEAM accreditation, and employees are actively encouraged to cycle to work. To this end, secure cycle stores a provided on site along with cycle showers, changing and lockers which are all accessed from the main entrance hub.

As the office windows face north, solar glare will not be an issue, however the south facing roof slopes will be utilised for solar panel placement.

Within the office zone, employee workstations have been given priority placement at the periphery of the rooms to maximise natural daylight, as required by BREEAM 'Health & wellbeing' credits.

In contrast, ancillary spaces located away from building perimeter allowing maximum use of natural daylight.

The main entrance accesses a central access hub containing stairs, lift, Disabled WC, break out areas and circulation spaces. This is a client requirement as it encourage social interaction and the creation of informal meeting spaces. This basic pattern is repeated on all floors.

There are three fire escape stairs spaced equally within the office provision to ensure safe & swift egress for all employees on all floors.

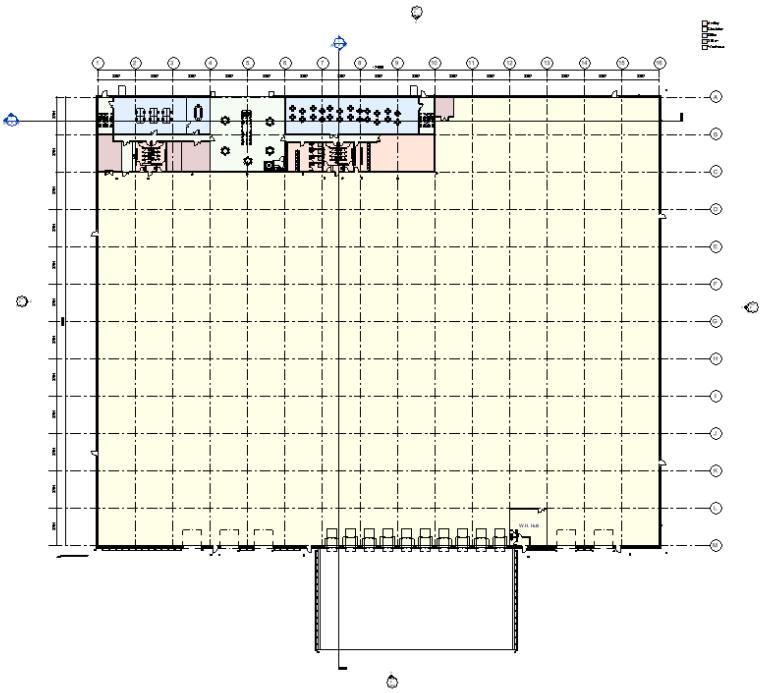


Figure 22 - General Assembly Plan

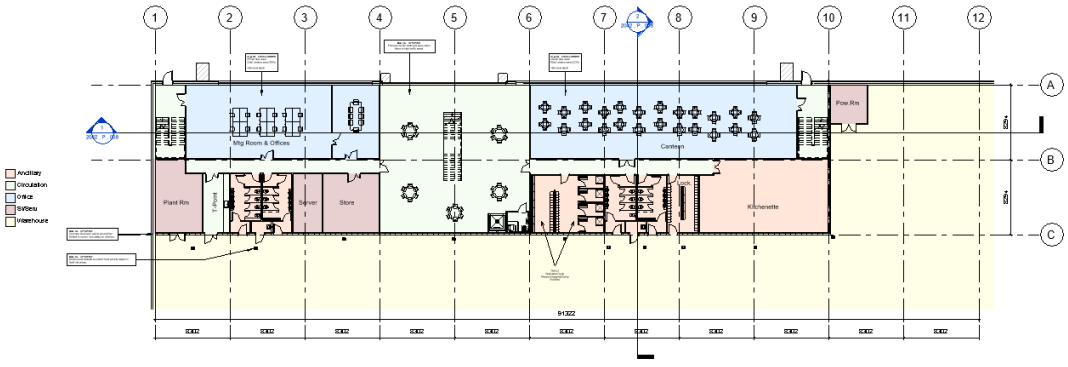


Figure 23 - Ground Floor Plan

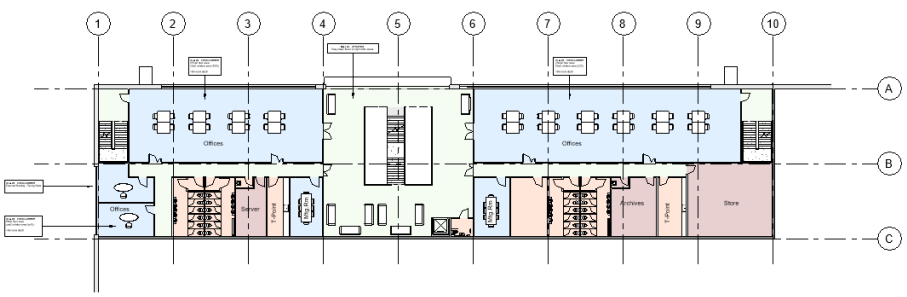


Figure 24 - First & Second Floor Plans

3|5 Height, Scale & Massing

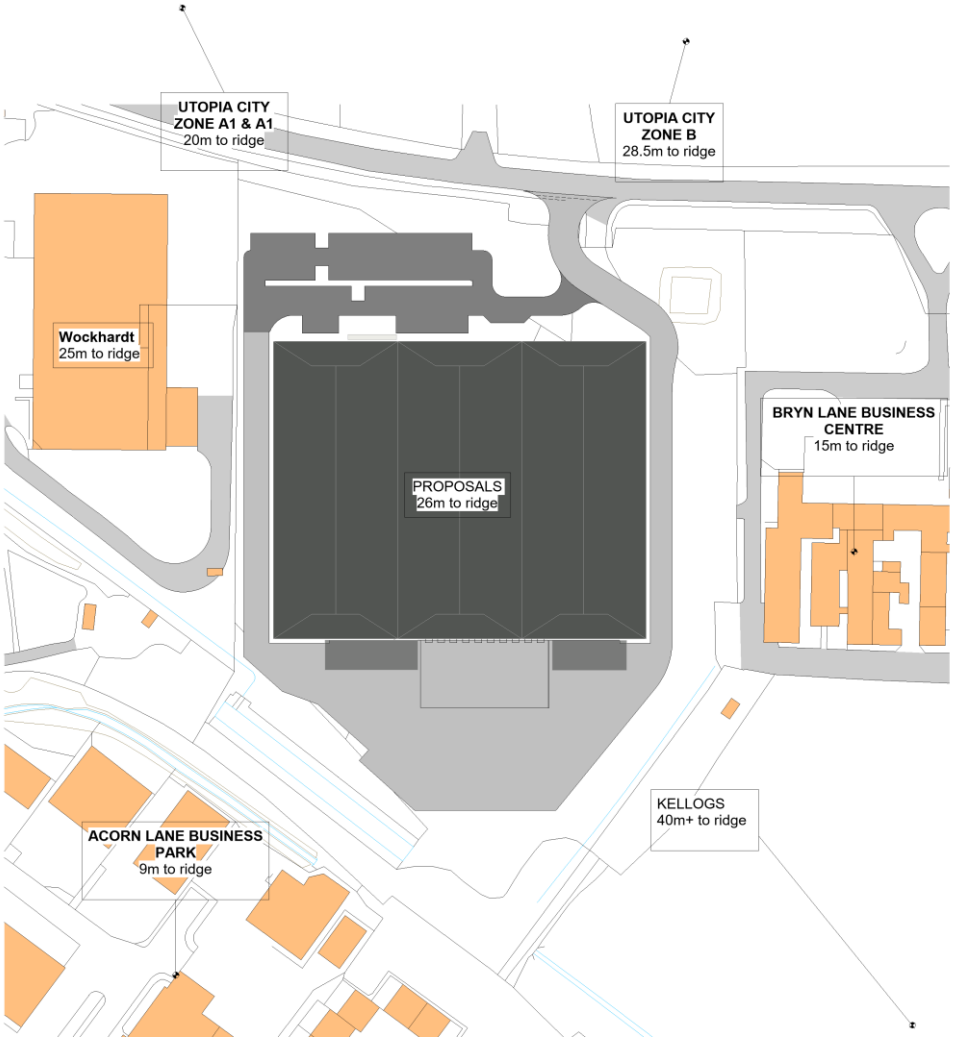


Figure 25 - Context Building Heights

In Wrexham, the evolution of warehouses reflects the broader trends seen globally and across Wales. The centralization of operations, optimization of inventory, and adoption of advanced technologies are driving significant performance and cost benefits for businesses in the area.

Wrexham's industrial buildings have transformed into dynamic, multi-functional hubs essential to modern supply chains. They handle tasks such as picking and dispatching online orders, storing stock for retail outlets, and managing reverse logistics. The rise of e-commerce and the need for efficient delivery systems have increased the demand for these facilities in Wrexham.

Consequently, warehouses in Wrexham have expanded in size and complexity, both in footprint and height.

For example, high-reach automated cranes and sophisticated warehouse management systems (WMS) are being utilized to maximize storage capacity. Manufacturing pallet racking that exceeds heights of 40 meters is becoming more common in various parts of Wrexham, reflecting the broader trend of increasing warehouse heights and capacities.

This growth is supported by the presence of significant industrial estates, such as the Wrexham Industrial Estate, which is one of the largest in the UK. The estate is home to over 340 businesses, providing employment for more than 10,000 people1. This expansion is crucial for supporting the region's economic growth and meeting the demands of modern supply chains.

Achieving the proposed height scale and massing of the proposals have considered the following. It should be noted that early revisions saw the proposed height similar to that of the Kellogs factory (see Section 3|0 – Spatial & Developed Design)

- **Adjacent buildings –** refer to *Fig. 25 – Context Building heights*
  The proposed height (26m to ridge) sits within the mean roof height of surrounding premises. These include:
  - Kellogs – approx. height 40+m (to the southeast)
  - Wockhardt – approx. height 25m (to the west)
  - Bryn Business Centre – approx. 15m (to the east)
  - Acorn Lane Business Park – approx. 9m (to the south)

- **Visual impact**
  An LVIA has been completed which demonstrates that views of the proposals will be heavily screened by retained boundary arboriculture.

- **Interaction with the existing site context**
  No adverse effects to ecology and arboriculture have been identified with the proposed height. Taller buildings may have adverse impacts on existing ecology & arboriculture.

- **Functional Requirements**
  As stated earlier in this section, for industrial units to be successful clear heights in excess of 22m clear to underside of haunch are becoming the standard. Office spaces require a typical 4.2m floor to floor heights to accommodate modern air conditioning space requirements, of which there are multiple floors.

  It is considered the proposed building volumes are in keeping with the scale and massing of the existing site context and surrounding buildings whilst also providing premises for future operations.

3|6 Appearance



Figure 26 - 3D Render of the proposals

The design philosophy for the buildings' external appearance aimed to blend modern high-end office and industrial aesthetics and aligning with the existing built environment and site character. See *Fig. 26* above and below *Figs. 25-28*

Key Components of the design philosophy include:

- Basis for building envelope material selections:
- Utilization of modern, industrial-grade materials reflecting the surrounding buildings' character.
- Incorporation of flat and profiled cladding systems and glazed fenestrations to enhance the modern industrial design aesthetic.
- Inclusion of a feature rainscreen canopy projection at glazed fenestrations to create a contemporary Bryn Lane frontage.
- Selection of robust, low-maintenance materials ensuring long-term durability and good weathering performance.
- Design of heights and proportions to match the industrial scale of the proposed facility's development footprint.

The primary materials include profiled metal and composite insulated panel systems for the walls and roof, with feature surrounds and canopy elements for the office areas.

The profile metal roof is concealed from ground level by hipped ends and a shallow parapet detail, adding visual interest.

Metal-framed curtain walling with integral glazed entrance doors are applied to the south facing Bryn Lane elevation. This, combined with a feature canopy surround in metal cassette rainscreen cladding, provides a high-quality and a high thermally performing appearance to a modern commercial/industrial development.

Dark shades of grey are to reflect the current corporate colours of Net World Sports whilst the silver canopy emphasises entrance and human activity areas on the north elevation.

The south elevation is very much the 'business end' of the unit where delivery operations occur. Opening colours change to a 'burnt orange', giving building users immediate recognition of doors/loading bays.

Refer to *Figs. 27-30 below.*

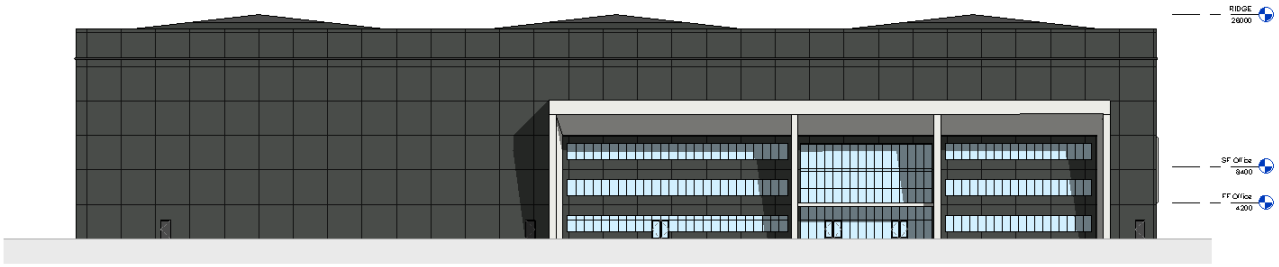


Figure 27 - Proposed north elevation

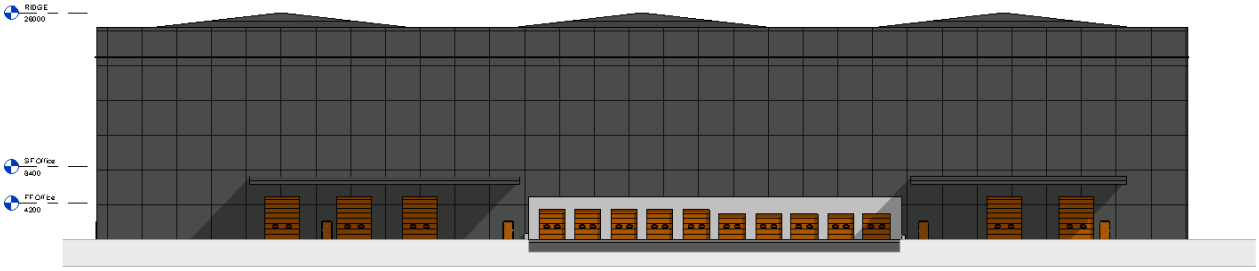


Figure 28 - Proposed south elevation

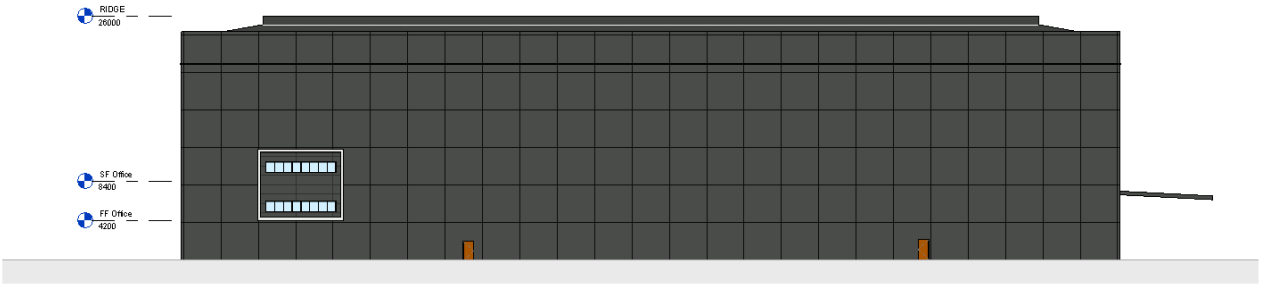


Figure 29 - Proposed west elevatio

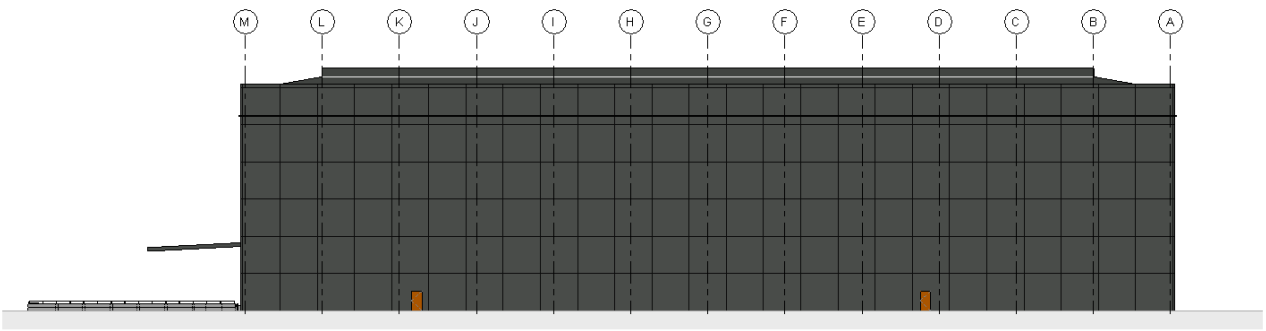


Figure 30 - Proposed east elevation

3|7 Landscape Strategy

INTRODUCTION

The landscape design approach holds a unique position as it involves the integration of the proposed built form into the existing established landscape framework.
The site is considered to be of ecological value most notably the western and southern perimeters and the project footprint is 3.72 hectares, comprising of improved grassland with some native species rich hedgerows and scrub habitats that could provide foraging and habitat areas for a number of wildlife species. The design approach can maximise the sustainable goals of the site and create a positive experience in terms of ecology and end users.
Given that the plot sits within a mosaic of commercial units, agricultural fields and green infrastructure spaces, the linking factor of the boundary framework planting puts this development in a unique position to reinforce the wider landscape aims of the Wrexham Industrial Estate.
By retaining and preserving existing assets, further strengthening the boundaries and adding ecological elements through a variety of planting and ponds, the improvements can contribute in a very positive way to the Strategic Ecological Network.
The guidance advocated in 'Wrexham Industrial Estate – Towards a Living Landscape' illustrates what important ecological assets exist within the wider site context and how the site can integrate and connect through hedgerows, aquatic corridors, woodland planting, open grasslands and the mosaic of varying habitats for wildlife.

SITE CONTEXT

The site is situated within Wrexham Industrial Estate and is currently on the fringes of the agricultural landscape consisting of small and medium scale enclosures, with strong hedgerow patterns and intermittent hedgerow trees, most notably Oaks. The plot is surrounded on three sides by light industrial and commercial developments with an agricultural residential property to the north side of Bryn Lane.

The Green Infrastructure planting that is currently established on the edges of the plot are important ecological assets and enhancement is important as this forms part of the industrial estate Strategic Ecological Network. These wildlife links are connectors within the estate as a whole and allow foraging and habitat creation for many forms of wildlife. Elements such as drainage ditches, hedgerows, scrub planting, trees of varying ages and conditions are all present on site and provide a valuable resource for the landscape approach to use in developing a robust strategy.

Background and Benchmarking

Wrexham Industrial Estate is the largest industrial estate in Wales and one of the largest in Europe. From its previous history as a munitions facility, the area has developed its own unique wild network of green spaces among the existing industrial buildings. Many rich pockets of wildlife exist within the overall site and the new plot on Bryn Lane can further increase biodiversity to create habitats for all manner of wildlife as well as providing much needed wellness provisions for users and visitors alike. These wellness trails can link into the existing circulation paths which further ensure connectivity and extension of the wider Green Infrastructure network.

Wildlife sites of significance within the Industrial Estate include The Oaks, Erlas Black Wood, Big Wood, Bryn Lane Nature Reserve and Redwither Brook. Species of significance include the rare Dingy Skipper and Grizzled Skipper butterflies, Barn Owls, Kestrel, Badgers, Greater Crested Newts, Pole cats, Bats, Hedgehogs and Watervoles.

Ancient semi-natural woodlands, Restored ancient Woodland Suites (RAWS - spaces that have been wooded for over 400 years) and 'Woods for People' are all typologies of important wooded areas in the wider site. A longer term strategy to embrace these spaces is advocated, whilst none of these features are currently found on site, the Proposed Development is a part of that wider thinking.



Key landscape design objectives include:

Preserve existing valuable trees wherever possible, on site – retaining trees continues a stable ecological element and a visual marker within the landscape. The site has notable Oak trees (Quercus robur), Hawthorn (Crataegus monogyna) and Willow (Salix spp.)

Enhancement and contribution to the wider Wrexham Industrial Estate through connecting with the Strategic Ecological Network by ensuring that vegetation and water elements are situated in positions where benefit will occur.

Strengthen the boundary planting to ensure that the current visual envelope is retained and weaker areas are improved. This aligns with the recommendations outlined in the Landscape and Visual Impact Assessment.

Native Hedgerows – ensure good maintenance of existing hedgerows and creation of new hedgerows within the new layout to link them together to create valuable habitats and wildlife corridors for all form of birds and mammals.
Strengthening the wildlife corridors – managing waterside vegetation, increasing wildflower potential, mosaic grasslands, rainwater harvesting, pollinator plants in car parks, footpath networks with recreational areas all improve the connectability.
Wetland and pond areas – incorporation of water within a site increases biodiversity immeasurably and extending the existing water system on site will have great benefits - species rich ponds with marginal aquatic planting .

Grasslands – a range of grassed areas can provide an array of species for habitat creation and foraging. Semi-improved neutral grasslands, wildflower meadow species, verges with rough species rich together with perennials and ruderal grasses contribute to a mosaic of habitats which can be considered for the site.

<u>Key design areas:</u>
Site Entrance - the site has a notable Oak tree and Hawthorn at the entrance as well as multi-species buffer planting with many native species being present. The layout has ensured that these important assets remain and the associated root protection areas (RPA) are considered. Additional trees and layered scrub/thicket mix planting provide screening to integrate the existing planting in this area. Some ornamental planting and meadow grass to the thicket edge has been provided to indicate the entrance and work with Boundary Hedgerows

The **hedgerows** are a very important component of the site for ecological and framework reasons. Hedgerows and trees will be protected in accordance with BS5837:2102 and based on the approved Tree Protection Scheme. Additional hedges around the plot can increase the linked network with hedgerow trees

allowed to develop at intervals. Species to include but not limited to Hawthorn, Guelder Rose, Black Poplar and Field Maple. The hedgerows provide a great opportunity to reconnect fragmented habitats.

Pedestrian connection from Bryn Lane – this circulation link connects the external site through the most appropriate location, due to the permeability through the existing boundary planting. This provides a clear link for pedestrian and cyclists to access the main entrance and cycle storage facilities.

Eastern Boundary – this area is part of the strategic ecological network and has features such as ditches, scrub and tree planting. To improve the network, additional planting has been suggested to further boost the vegetation in the area where some gaps and weaker areas exist. Wildflower grasslands border the higher planted areas allow a maintained edge during establishment period and beyond. Layered planting using smaller whip species mixed with larger trees on a grid basis ensure that a variety of native species are planted.

Northern Boundary – this boundary is close to the site entrance so has the existing site trees within the curtilage. The shape of the vegetation does taper off to the north-western corner which is why the pedestrian pathway access and cycle shelter are located here. The proposal is to increase the native buffer planting to ensure that screening is maintained in this area. Similar with the substation location, localized scrub / thicket planting will be planted to continue the screening following installation.

Western Boundary – this area currently has no existing planting and the view of the steel security fencing is dominant along this stretch. We have proposed adding a native hedge with additional hedgerow trees to screen the fencing and with species rich grass margin to provide a linking habitat corridor on this edge.

North-Eastern corner by existing bunker

This area will require removal of the redundant concrete bunker and this would most likely affect the root system and ground make up around the area of the Willow tree. Health and safety issues as well as long-term health of the tree may result in its removal. This would affect T2 and T3 and we would follow the arboriculturalists recommendations regarding the trees. We would propose to plant similar suitable tree species within this area to keep a consistency, together with a varied scrub/thicket layer and wildflower grasses at ground-flora level. The dominant existing brambles in this corner are suggested to be removed to allow a more diverse range of plants in this area for pollination and foraging purposes.

Southern boundary area

The southern boundary contains the existing stone lined drainage channel and managed buffer planting. The proposals suggest increasing scrub/thicket planting to the north of the channel to infill the gaps within the existing planting. These would include scrub and tree planting to link with T7 and T8 and ensure that G7 becomes a much stronger habitat and screening element rather than the fragmented and isolated planting that currently exists. 'Hibernacula' (log piles) will be installed at various locations along all boundaries to complement the current habitat creation strategy.

This area is an important part of the Strategic Ecological Network and with this in mind, a new wildlife pond has been designed to acts as a potential link between the channel and nearby wet ditches. The pond should provide a varying habitat from the 2 surrounding linear features and may aid breeding for a range of species. Currently, there are no existing ponds on this Site and it is noted that supporting the existing Greater Crested Newt (GCN) population is a strategic objective of WCBC and NRW.

Car Park

The car park area has limited planting to ensure safe visual corridors but also delineate crossing points and parking bay end points. Ornamental grasses and

evergreen low hedges combine with fastigiate habit trees to soften the hardscape elements. Limited ornamental planting, species rich grasslands and a small tree group aim to soften the building form at the edges of the car park.

Other site and design considerations

Mature existing trees on site will be protected in accordance with 'BS5837 (2012) Trees in Relation to Design, Demolition and Construction' and based on the approved Tree Protection Scheme for the site. Best practice recommendations from the Arboricultural consultant will be followed throughout.

Bird and Bat box provision can be included on site using appropriate boxes in locations in line with Ecological recommendations based on findings of species on site and to help establish the wider bat and bird populations within the Industrial Estate.

Butterfly and Bee Banks can also be created in identified locations by using sharp sand over soil in a linear or horseshoe shape on South/SW facing areas where possible on site. A mosaic patchwork arrangement can support a rich diversity of invertebrate including the rare Dingy Skipper and Grizzled Skipper butterflies that are within the wider Industrial estate site.

'Hibernacula' or log piles will be included throughout the site to complement the existing locations on site and any arisings from tree maintenance work can be retained on site and used accordingly.

Native Tree species will be used throughout the scheme and will follow guidance from the North Wales Wildlife Trust and ecological consultants to include suitable local species such as Pendunculate Oak, Field Maple, Alder, Birch and Crack Willow in appropriate locations.

Summary

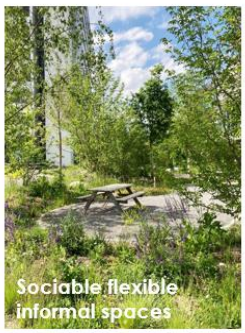
The landscape strategy puts site context and existing features at the heart of the design approach. By respecting and retaining trees and vegetation, the current assets can be enhanced in a very positive way.

Total number of trees removed – 2no.
Total number of trees proposed – 84no.
Total length of hedgerow removed – 0 linear metres
Total length of hedgerow proposed – 159 linear metres
Total area for wildlife pond proposed – 104 m2

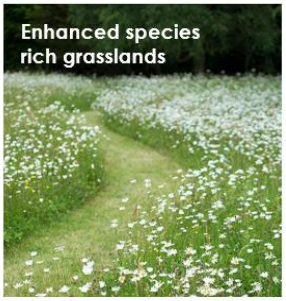
Creating connections from within the site to external habitat corridors of wider importance help reinforce the Strategic Ecological Network that exists within Wrexham Industrial Estate.

This overall approach strengthens the site thresholds and boundaries and allows for careful integration of the built form within the overall site and its surroundings.

KEY LANDSCAPE THEMES















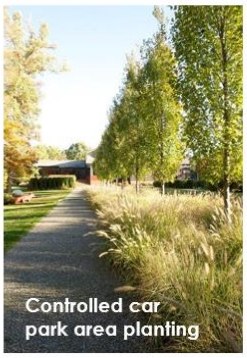


KEY LANDSCAPE THEMES





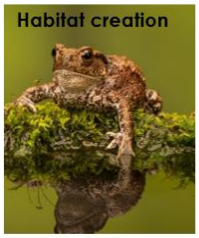














KEY PLANTING SPECIES









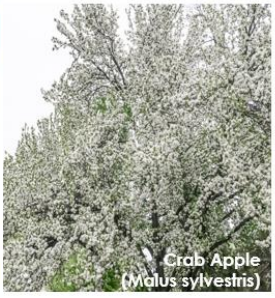














4|0 Access & Operations

4|1 Site Access

Site access (*shown green on Fig. 31 below*) from the south side of Bryn Lane is retained with minor width and radii adjustments enhancing safe access & egress for all vehicles. Circulation within the site has been considered for all vehicle and worker transit types. A summary of each follows:

- **Heavy Goods Vehicles** *(shown blue on Fig. 31*) proceed along a dedicated yard access road which incorporates waiting areas for deliveries/collections. Along this access road features a traffic light HGV control to ensure controlled traffic through the complex.
- **Employee parking** (*shown orange on Fig. 31*) access dedicated car park shortly after entering the site from Bryn Lane. A drop off point is located within the car park allowing vehicles to egress the site efficiently.
- **Cycles & pedestrians** can access the internal paths from existing the Bryn Lane footway and highway networks. Cycle shelters and the dedicated staff seating areas are found by these accessible routes.
- **Fire Tender Access –** (*shown red on Fig. 31)* 100% access provided to perimeter of building as required by Building Regulations Document B Part 2.
- **Accessible Design –** In accordance with Building Control requirements, this scheme will provide accessible design features such as Disabled parking spaces, drop kerbs, passenger lifts, Disabled WC on all floors.

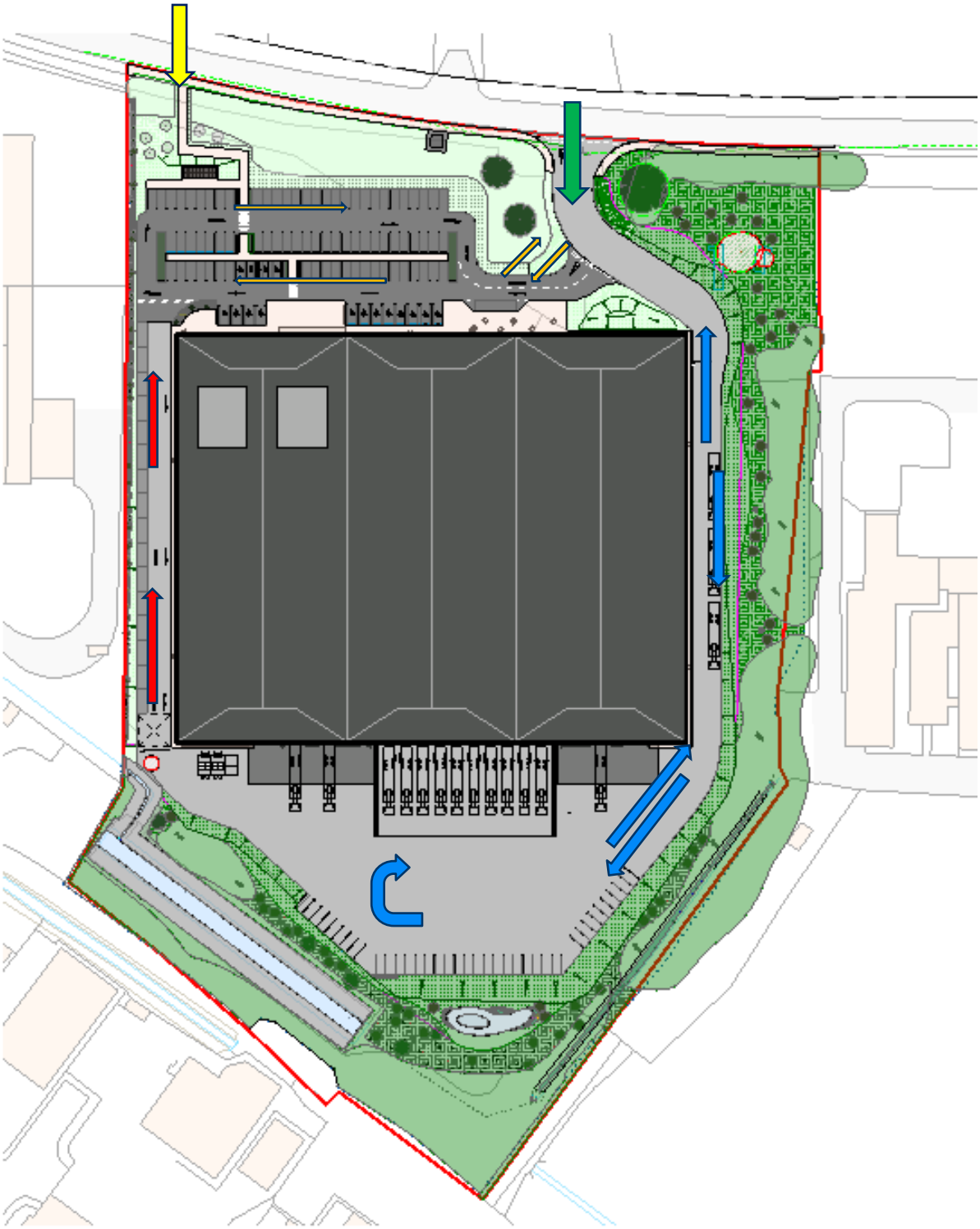


Figure 31 - Site Circulation

4|2 Waste Management

Recycled materials and general waste storage located within the yard ready for collection by specialist contractors. To further enhance efficiency waste compactors are proposed.

4|3 Security

A BREEAM requirement is to liaise with local authorities to assess the proposals and make recommendations for enhancements where possible.

PC David Williams, North Wales Police made the following suggestions. These have been considered within the submitted proposals.

*"**Environment** = high/medium/low risk neighbourhood*
This is a somewhat subjective view but based on the prevailing crime trends I'd have to put this in the medium risk category.

***Boundaries** = gates, fences, demarcation*
Here I will consider what type of fencing would best mitigate risks of unauthorised intrusion onto the site.

***Building shell** = doors & windows*
If it is not possible to restrict access into the site, the focus shifts inwards to the building itself placing importance on the security standards of doors and windows.

***Inside** = security of property likely to be stolen*
This is dependent on the nature of the building's contents and is usually achieved by setting levels of access control and an effective intruder alarm system."

5|0 Conclusion

The application is for a Development of a warehouse & manufacture building (Use Class B2 & B8) with ancillary office space (Use Class B1a), associated landscaping, access roads, parking and servicing.

These submitted proposals will:

- Achieve the BREEAM 'Excellent' standard offering health & wellbeing to building visitors and employees.
- Protect and enhance the Strategic Ecology Corridor, protected under Policy SP9.
- Accord with National, Development, Strategic policies in addition to Local Guidance notes & guidance.
- Respond to site constraints & opportunities
- Provide a quantum of development balances client requirements, site capacity with context considerations.
- Benefit the local community and region by creating jobs and growth long term.
- Deliver a high-quality employment facility within the existing Wrexham Industrial Estate, a key employment site within the Local Authority.
- The proposed height, scale and massing in alignment with the surrounding developments.
- Utilises a rare, vacant site within the Wrexham Industrial Estate with good access & connectivity to highway infrastructure.
- Put site context and existing features at the heart of the design approach. By respecting and retaining trees and vegetation, the current assets can be enhanced in a very positive way.
- Create connections from within the site to external habitat corridors of wider importance help reinforce the Strategic Ecological Network that exists within Wrexham Industrial Estate.
- Strengthens the site thresholds and boundaries and allows for careful integration of the built form within the overall site and its surroundings.