3.00 Development Framework

3.1 Character Area Design and Alternative Approaches

3.1.01 The Indicative Masterplan layout has evolved from initial concept proposals informed by the site constraints identified, and information received from the various technical and public consultations. Alternative layouts have been considered and rejected in favour of the current application masterplan, which although indicative in terms of building layout, provides the design basis for future development.

3.1.02 The location of the plateaus in Zones 1-4 on the development, enables large scale buildings to be accommodated, the service yard areas protected from established residential areas, with sufficient land area to enable adequate landscape screening. This allows the issues of visual impact, noise, air quality and light pollution, usually associated with this type of development, to be substantially reduced or mitigated.

3.1.03 The site is proposed to be accessed from the Whitebirk roundabout at the north end of the site with a new road access proposed into the site providing access off a new roundabout between the proposed use zones. This layout will avoid the need for goods vehicles to travel through local residential areas.

3.1.05 Zones 5 and 6 is more suitable for the smaller scale type of commercial development associated with hotels, petrol filling stations, pub/carvery and fast food outlets. This layout allows for the high profile uses at the entrance to the development, designed and often branded to suit the potential occupiers image and use.

3.1.06 Following on from the Zones 5 and 6 into Zones 1 to 4 will be high quality industrial and logistics buildings with quality building design and materials. This will be accessed off the proposed spine road through the centre of the development.

3.1.07 A new junction to Blackburn road is proposed to provide cycle and pedestrian access from the local residential areas into development, as well as emergency vehicles and public transport in the form of busses. The design of this access will be that it will restrict the movements of vehicles reducing impact of any increased traffic generated from the development through and the existing residential road.

3.2 Road Design

3.2.01 The improvement and alteration works to the roads, around the site, have been designed by specialist Consultant David Tucker Associates & Engineers THDA, in conjunction with the Highways Agency, Hyndburn Borough and Blackburn with Darwen Council, to produce a comprehensive design to meet the growing demands upon the local infrastructure.

3.3 Highway Access

3.3.01 The proposed southern access illustrated below has been designed by specialist Consultant Engineers THDA. The proposed provides a vehicular restriction preventing vehicular traffic using the southern access whist enabling pedestrians, cyclists, emergency vehicles & public transport in the form of busses.

Vehicular turning heads have been placed either side of the restriction to allow all vehicles including HGV’s the ability to turn back.

The new junction onto Blackburn road will also be signalised with phased pedestrian crossing facilities, increasing the safety for pedestrians crossing the road.

3.3.02 The proposed northern access illustrated below has been designed by specialist Consultant Engineers THDA. The proposed northern access is the main access into the development providing vehicular, cycle and pedestrian access off the Whitebirk roundabout.

Proposed Southern Blackburn Road Junction Drawing Extract

Proposed New Roundabout Drawing Extract

Northern Whitebirk Roundabout Proposed Junction Drawing Extract
3.4 Layout and Scheme Design

3.4.01 The site layout proposals and scheme design have been informed by and are a result of detailed analysis of the existing site and the constraints as outlined above.

3.4.02 Early proposals for layout and the scale for development have been revised and re-planned numerous times, as the effects of the initial concept layouts were assessed and further detailed information attained.

3.4.03 Planning advice has been sought from Borough of Hyndburn in consultation with Blackburn and Darwen Borough Council and together with consideration to the overall context of the development, as set out within this document. The results of the various surveys and consultations has shaped the proposals to establish the Development Framework. This sets out the basis for future development, providing the main fundamental principles to be followed to allow for detailed proposals for any future development to be made to fit within the parameters of this framework.

3.4.04 The conclusions reached following the above process clearly show that a high standard of design is required to achieve a satisfactory development framework including building design and access together with the promotion of sustainability, the effective use of land and the provision of new employment opportunities.

3.4.05 The prominence of the site and the character and appearance of the area has been taken into account within the proposals, with particular regard to the siting, scale, massing of the potential future buildings integrated into the surrounding area with a structured landscape design.

3.4.06 Concept design layouts have been developed responding to the numerous constraints and guidance policies set out above to create a framework plan for the different zones of the site. From this framework the design of schematic layouts has evolved to establish the parameters for development at the site, identifying the site potential and establishing the extent of sustainable development suitable for the site.
3.5 Development Zones, Land Use

3.5.01 The site indicative layout designs for development and the split of proposed plots respond to the existing site topography utilising a ‘cut and fill’ approach and the use of on-site materials to form level ground plateaux’s for development, as well as areas of landscape screening, creating an overall balance of materials and levels avoiding the need to import or export large quantities of overburden and fill materials.

Logistics/Manufacturing Park, Development Zones 1-4

3.5.02 This zone has been designed as a commercial development area for a Logistics Park with Use Classes of B1c / B2 Industry and B8 Storage & Distribution, with associated office accommodation, for up to 92,415 m² of manufacturing and logistics buildings with the potential to create up to 2,000 jobs. It is positioned away from the main frontage / ‘gateway’ area, allowing for more appropriate business use classes at this high profile location. However the proposed new link road provides direct access from Zones 1 to 4 onto the main road leading off Whitebirk roundabout.

3.5.03 The layout of Zones 1 to 4 allows for the creation of significant landscaping buffer to extend around the southern part of the site. Landscaping provided along the southern Blackburn Road boundary in a wide buffer strip (up to 60 meters wide) includes tree planting and areas of open grassland. This will assist in filtering views from residential properties to the south of Blackburn Road, and soften the development frontage.

3.5.04 The screen created by the level differences and the landscaping within this buffer zone will aid visual and acoustic screening.

3.5.05 As well as providing screening to the southern boundary, within each development plot, significant areas of landscaping will be provided, principally on the slopes around the edges of the development platform. This will complement existing woodland in Abbots Clough to the west of the site and the M65 verge landscaping to the east of the site.

- A Landscape and Visual Impact Assessment and field work has been carried out. Opportunities to help protect the landscape character of the area and the visual amenity of nearby residents and users of local footpaths have been identified. They include:
  - The incorporation of new tree groups, hedgerows and base layer planting throughout the site, and in particular along the main vehicular routes;
  - Ensuring the development responds to higher ground levels to the east of the site through a reduction in scale and massing of development units;
  - Existing hedgerows along the southern site boundary could be enhanced.
  - Existing tree line to the south-western corner of the site could be retained and enhanced to merge with existing woodland planting at Abbots Clough;
  - New woodland planting along the Knuzden Brooke river corridor will provide a buffer between the proposed development and the existing woodland at Abbots Clough;

Commercial Hub Development Zones 5 & 6

3.5.06 This development area is prominent to the gateway location and as such is proposed for commercial development incorporating the following planning use classes; C1 Hotel, Petrol filling stations (with associated A1), A3, pub/carvery and A5 fast food outlets
3.6 **Drainage Strategy**

3.6.01 The site will drain via outfalls to the Knuzden Brook, which runs along the western elevation of the site. The Knuzden Brook is classified as a main river and is under the control of the Environment Agency.

3.6.02 Proposed surface water runoff will be attenuated within the site via balancing ponds and swales, and will outfall to the Knuden Brook offering betterment compared to the pre-development run off rates. The pond will have stilling basin, which will also include reeds, to trap silts and also to provide a degree of water cleansing.

3.6.03 A series of trapped gullies, channels, pipes and manholes will be used to convey water from the roads and plots to the balancing ponds. All surface water from building service yards or large car parks will pass through a suitably sized petrol interceptor, prior to discharge to the sewer network. Runoff from roundabouts will pass through a suitably sized petrol interceptor, subject to the Highway Authority’s approval.

3.6.04 It is possible that some degree of water discharge to ground may be possible within the site. Any areas drained in this manner will reduce the required size of pond, but for robustness at this stage no discharge to ground has been assumed.

3.6.05 Foul water will be collected in a series of pipes and manholes and be discharged by gravity to an existing United Utilities Sewer to the north of the site.

3.6.06 All foul water from the plots shall drain to separate foul networks designed in accordance with the latest edition of the Sewer for adoption.

3.6.07 The road which provides the main access to this site and the rest of the development, will be drained by an highway drain network. Attenuation will be provided in the form of balancing ponds and swales.
3.7 Consultations

3.7.01 Ancer Spa Planning Consultants, along with the professional Design Team consultants, have worked with Borough of Hyndburn & Blackburn with Darwen Borough Council Planning Authorities, to understand the opportunities offered by the site. The current outline application is for an effective proposal for the site development and includes consideration of feedback from a number of consultations held with stakeholders including local community groups as well as Borough of Hyndburn & Blackburn with Darwen Borough Council.

3.7.02 A Public exhibition and consultation, on the 24th February 2015 took place, which was open to all members of the public and interested parties, providing the opportunity to discuss the proposals directly with members of the development and design team.

3.7.03 The exhibition provided detail information to explain the nature and type of development envisaged. The project team also prepared a presentation of the scheme to representatives, at Borough of Hyndburn council and sought pre-application advice from Borough of Hyndburn & Blackburn with Darwen Borough Council.

3.7.04 Results from these consultations have played an important role in shaping the design of the development. The proposals have been amended at each stage, by the project design team, in response to consultation feedback and the various matters that have arisen.

3.7.05 Information regarding the proposals and exhibition have also be made public with press releases. The public exhibition was held to allow feedback and comments to be received from anyone who wishes to express their opinions regarding the proposals and raise any concerns or comments that they may have.

3.7.06 The application framework and resulting design and layout parameters have been arrived at following a process of constant review of the scheme over a considerable time period. The results of the various consultations have been carefully analysed and the design modified and amended to reflect the conclusions reached by the various consultations.

3.8 Scheme Refinement

3.8.01 The schematic layout proposals have been developed to form the indicative illustrative layout designs for employment use included within this document. These layouts are a result of the above process and have been informed by the technical and site constraint requirements, the potential for future employment opportunities and consideration to the feedback received from various consultations with Civil Engineers, landscape and environment consultants as well as the Borough of Hyndburn & Blackburn with Darwen Borough Council’s Planning Authority, and public consultations held.

3.8.02 In order to produce the Development Parameters Plan for the proposed development, the conceptual design has evolved from the Framework Plan with detailed consideration to the constraints identified and information from the various surveys, assessments and consultations to establish the principles for development.

3.8.03 The Development Parameters Plan sets out to establish the amount of development appropriate to each development zone, the scale of development and layout, as well as the required level of landscape screening and ecological mitigation.

3.8.04 The process of creating a Development Parameters Plan is one of schematic design with adjustments and refinements made in order to satisfy all of the various sources of information, constraints and guidance that is established and relevant to the proposals.

3.8.05 These proposals have been subject to a thorough design process, with numerous specialist consultants employed to provide relevant information within their specialisms ensuring that the parameters most appropriate for the site are established.

3.8.06 Major influences that have had significant bearing upon the design, including specific site constraints that have been taken into account in shaping the proposals;

1 Mitigating and reducing the visual and acoustic impact of development from key locations around the site including; the residential areas along Blackburn road and Abbotts Clough. Potential maximum building heights have been considered along with ground levels to establish these constraints within the Development Parameters Plan. Areas of earth mounding have also been introduced within landscaping areas to further screen development from these sensitive areas outside of the site boundaries.

2 Noise attenuation from potential yards and carpark areas for Blackburn road residential areas has been considered. As well as being designed to meet the operational needs, the placement of the proposed buildings and associated external circulation roadways and service areas, have been set considering the surrounding residential areas. Substantial green landscape areas have been introduced to the boundaries, along with earth mounding and where necessary acoustic barriers to further screen the residential properties.

3 Highways: The connection of the new spine road and junction onto the Whithbirk roundabout, allows for all goods vehicle movements to access the application site, development plots, directly from the existing road network to the north of the site away from existing residential roads and communities.

4 Zones 1-4 have been selected to provide development opportunities for the proposed manufacturing, industrial, storage and distribution employment uses. This zone offers an opportunity to create a comprehensive development of high quality, in an accessible location.

5 Traffic control systems are proposed to be introduced to the south to the spine road within the site off Blackburn road, as set out within the highways detail designs issued as part of the application. These controls are proposed to prevent commercial vehicle traffic generated by the development from being routed through Blackburn road.
6 Creating a sustainable development of quality design, including large landscaping areas, whilst maintaining and sustainable economic land use. The Development Parameters Plan sets out a balance of built environment / footprint areas with green open space to create financially viable development opportunities without excessive wasteful land use within the employment zone.

7 Ecology; The need to provide alternative and enhanced wildlife habitat across the site. Significant areas of green landscape spaces are included within the development zones which are intended to be enhanced with structured landscape planting to incorporate areas of natural habitat specifically designed for wildlife species which have been observed across the area during the ecology surveys.

8 The development strategy is designed to serve and enhance the existing biodiversity of the site and also to incorporate areas of natural habitat. As a result of the extensive survey work carried out over many months, detailed proposals for the enhancement of habitat on site as well as the management of any necessary relocating wildlife within the site or, where appropriate, at alternative sites has been drawn up by specialist consultants.

9 A structed landscape proposal has been designed by Tyler Grange Landscape and ecology consultants, for this application site. The proposals protect and retain where possible mature trees and hedgerows on and adjacent to the site and provide substantial new planting to reinforce and enhance the existing planting with links to adjacent wildlife and wooded /woodland spaces.

10 Landscape ponds and water features, are included within the development zones and green open spaces to enhance the landscape design, habitats for wildlife and also to provide surface water drainage attenuation/ balancing. These surface water features also provide connectivity to adjacent rivers and wetland/flood plain areas beyond the site boundaries.

11 Technical hydraulic drainage design has been carried out by specialist Civil Engineer consultants THDA, to establish the appropriate requirements for storm water attenuation and storage to be created on site, to suit the scale of development as set out within the Development Parameters Plan. This underpins the drainage strategy for sustainable drainage measures reducing the storm water run-off from roof and hard surface areas avoiding local flooding without increasing flood risk elsewhere.

12 The proposals create a framework for the design of buildings, within the different development zones, including scale, appearance and appropriate materials for each location. This design framework is intended to set a high standard for the quality of design helping to reduce the visual impact of development from sensitive locations surrounding parts of the site.

13 The proposed layout for the Zones 1 to 4 for the Logistics Park has been drawn up to sub divide this zone into large level plateau areas to provide development opportunities for large scale buildings, suitable for; industrial, storage and distribution uses. The layout has been achieved by technical ground modelling design, carried out by specialist Civil Engineering consultants, THDA. Materials arising from creating ground plateaux levels have been utilised within the design to create some raised levels around the Zones 1 to 4 boundary to help screen the development reducing its visual and acoustic impact from sensitive locations outside of the site boundary.

14 The layout has also been refined by where possible moving the ‘commercial’ use aspects away from the western and southern boundaries to aid shielding service yard and vehicle parking areas from the sensitive boundaries.

15 Establishing the parameters for the development proposals has been aided by the use of computer technology to produce 3D models of the proposed development zones as part of the scheme refinement. This has allowed for numerous visual impact assessments to be carried out, with photo montages, created of views from sensitive viewpoints identified around the site.

16 To view the photomontages produced, refer to the Landscape and Visual section of the Environment Statement issued as a separate supporting document to the application.

17 The results of these visual assessments has allowed for design modifications to be made throughout the design process reducing the visual impact of development by adjustment of building heights, and modifying the balance of site ground plateau levels as required.

18 The extent of cut and fill earthworks and the layout of the development zones to establish the appropriate level of development has also been subject to revisions throughout the design process by the results of noise impact assessments carried out by specialist acoustic consultants.
3.8 Indicative Masterplan Design Development
3.9 Scale

3.9.01 The Development Parameters Plan illustrates the layout of the overall proposed development zones.

3.9.02 The Development Parameters Plan has evolved following the comprehensive design process, explained throughout this Design and Access Statement, in order to establish the appropriate scale of development for the various site zones identified.

3.9.03 The following tables reflect the information identified within the Development Parameters Plan and are submitted as part of the Outline Planning Application to establish the proposed scale for the development.

3.10 Development Zone Plot Areas

Development and landscape areas total 85.202 acres (34.480 hectares)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LOGISTICS Gross Development (including; building footprints, access roads, paved areas, and landscaping) 8.126 hectares 20.082 acres</td>
</tr>
<tr>
<td>2</td>
<td>MANUFACTURING/LOGISTICS Gross Development (including; building footprints, access roads, paved areas, and landscaping) 1.994 hectares 4.928 acres</td>
</tr>
<tr>
<td>3</td>
<td>MANUFACTURING/LOGISTICS Gross Development (including; building footprints, access roads, paved areas, and landscaping) 3.790 hectares 9.366 acres</td>
</tr>
<tr>
<td>4</td>
<td>MANUFACTURING/LOGISTICS Gross Development (including; building footprints, access roads, paved areas, and landscaping) 3.701 hectares 9.147 acres</td>
</tr>
<tr>
<td>5</td>
<td>COMMERCIAL Gross Development (including; building footprints, access roads, paved areas, and landscaping) 0.637 hectares 1.576 acres</td>
</tr>
<tr>
<td>6</td>
<td>COMMERCIAL Gross Development (including; building footprints, access roads, paved areas, and landscaping) 1.386 hectares 3.426 acres</td>
</tr>
<tr>
<td>7</td>
<td>Road Areas (including spine road and roundabout from and plot access roads within ownership boundary) 1.741 hectares 4.302 acres</td>
</tr>
<tr>
<td>8</td>
<td>Works to Highways outside of ownership but within the application red line boundary 0.548 hectares 1.354 acres</td>
</tr>
<tr>
<td>9</td>
<td>Net Landscape (including landscape/attenuation pond areas) 12.557 hectares 31.021 acres</td>
</tr>
<tr>
<td>TOTAL</td>
<td>34.480 hectares 85.202 acres</td>
</tr>
</tbody>
</table>

3.11 Building Size Parameters

Zones 1 to 4 Maximum Building Sizes

<table>
<thead>
<tr>
<th>Zone</th>
<th>Proposed Finished Floor Level (in meters above Ordnance Datum)</th>
<th>Max Ridge Height</th>
<th>Internal Gross areas on Indicative masterplan</th>
<th>Max Gross Internal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>152.350 (haunch 18m)</td>
<td>21.5 m</td>
<td>44,020 m²</td>
<td>44,849 m²</td>
</tr>
<tr>
<td>2</td>
<td>154.000 (haunch 18m)</td>
<td>17.5 m</td>
<td>9,506 m²</td>
<td>11,653 m²</td>
</tr>
<tr>
<td>3</td>
<td>159.000 (haunch 18m)</td>
<td>17.5 m</td>
<td>19,772 m²</td>
<td>22,170 m²</td>
</tr>
<tr>
<td>4</td>
<td>165.135 (haunch 18m)</td>
<td>17.5 m</td>
<td>18,843 m²</td>
<td>21,120 m²</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>99,792 m²</td>
</tr>
</tbody>
</table>

Note: maximum building sizes has been calculated assuming a reduced yard depth increasing the building area from that shown on the indicative masterplan drawing.

Zones 5 to 6 Maximum Building Sizes

<table>
<thead>
<tr>
<th>Zone</th>
<th>Proposed Finished Floor Level (in meters above Ordnance Datum)</th>
<th>Max Ridge Height</th>
<th>Internal Gross areas on Indicative masterplan</th>
<th>Max Gross Internal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Petrol Station 143.150-144.350</td>
<td>15.5 m</td>
<td>390 m²</td>
<td>TBA</td>
</tr>
<tr>
<td>6</td>
<td>Hotel</td>
<td></td>
<td>1,820 m²</td>
<td>TBA</td>
</tr>
<tr>
<td>5</td>
<td>Pub / Carvery 142.350-144.350</td>
<td>15.5 m</td>
<td>353 m²</td>
<td>TBA</td>
</tr>
<tr>
<td>5</td>
<td>Fast Food</td>
<td></td>
<td>585 m²</td>
<td>TBA</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>3,148 m²</td>
<td>m²</td>
</tr>
</tbody>
</table>
3.12 Indicative Site Sections

Indicative Site Section A

Indicative Site Section B

Indicative Site Section C
4.00 Climate Change and Sustainability

4.1 Introduction

4.1.04 With the current emphasis placed on energy conservation and the use of LZC technologies, the applicant is keen to enhance the development’s sustainable credentials both from an estate and public perspective. To this end, it is the intended aspiration to deliver each of the buildings within the new development Zones 1 to 4, to follow the principles and aspirations of BREEAM.

4.2 Sustainability – Exemplar Approach

4.2.01 In order to deliver environmentally responsible buildings, an exemplar approach is being adopted based on low energy design principles. In summary, this approach involves energy demand minimisation through good building envelope design and proficient use of services, before considering deployment of appropriate renewable technologies to decarbonise the development’s energy supply as follows:

4.3 Energy Efficiency and Water Conservation

4.3.01 As well as addressing the use of on-site renewable energy generation, it is prudent to acknowledge the passive and best practice measures that will form an integral part of the scheme. It is paramount that a sustainability strategy is formulated at an early stage to reduce the environmental impact of the design. To this end, energy efficiency measures, water conservation techniques and Sustainable Drainage Systems (SUDS) specific to the proposed development.

4.4 Building Design – Energy Efficiency

4.4.01 The general construction design standards to be adopted will exceed where possible the requirements of the current Part L2A of the Building Regulations, ‘The Conservation of Fuel and Power’. ISBEM calculations will be carried out in order to demonstrate compliance, in terms of Target Carbon Dioxide Emissions Rating (TER) and Building Carbon Dioxide Emissions Rating (BER), where BER must be lower than TER. Full calculations will be submitted for Building Control approval at both pre-construction and post-construction stages.

4.4.03 In accordance with the requirements of a low energy building, the air tightness characteristics will be addressed. With robust design, the target proposed for the dedicated office buildings is 5m³/m²/hr @ 50Pa. For commercial industrial buildings the target is 2.5m³/m²/hr @ 50Pa. This compares to the current Part L Building Regulations standard of 10m³/m²/hr @ 50Pa and hence represents an improvement of between 50% and 75%.

4.4.04 High levels of natural daylight will be provided, wherever possible. The glazing specifications for the new buildings will be optimised to ensure that the glazed elements provide excellent thermal performance combined with optimum solar reflectance to minimise summer solar heat gains along with high daylight transmittance factors to maximise daylight factors.

4.4.05 Lighting represents the largest element of energy consumption within developments of this nature and the applicant’s proposed approach to lighting is addressed by the Lighting Statement contained within a separate document.

4.4.06 Building envelopes in Zones 1 to 4 will be designed to ensure that the fabric and form of the office and industrial spaces encompasses the low energy sustainability principles of BREEAM.

4.4.02 Design standards and guidance for good practice have been adopted to address specific sustainability aspects of the design and construction including:

• BRE Green Guide to Specification: Provides guidance on the relative environmental impact of specifications for construction components and materials;
• Modern Methods of Construction: The manufacture and prefabrication of structural building parts off-site;
• Secured by design: Police principles and standards for safety and security, addressing the layout and design of the development and requirements for physical security;
• WRAP: Good practice guidance for various construction and demolition waste streams, including methodologies for maximising recycled content in new buildings.
• The cladding materials specified are high-quality components suitable for large commercial buildings of this type. They provide an attractive finish, whilst offering excellent longevity and durability, in addition to being recyclable and are classified as A rated under the BRE green building materials assessment.

4.5 Building Design – Water Conservation and Sustainable Drainage Systems (SUDS)

4.5.01 In order to reduce the environmental impact on water resources as a result of the development, it is proposed that all toilets will be low water capacity, taps will be push button type and water consumption will be tightly monitored. These measures will be supplemented by the incorporation of rainwater harvesting to the office accommodation. Rainwater harvesting will provide a means of conserving water and is a recognised SUDS measure to provide for the disposal of surface water.
4.6 **Low and Zero Carbon (LZC) Technology Energy Options**

4.6.01 With regard to demonstrating how contributions to the predicted energy demand of the development will be provided through LZC technology sources, comprehensive appraisals will need to be undertaken based on building function type and performance.

4.6.07 The exact mix of LZC technologies will be reviewed and refined as the scheme progresses and more detailed energy profiling data becomes available.

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”