

## **Appendix 2**

**Cabinet 18<sup>th</sup> December 2017**

**To approve the Masterplan proposals for the Strategic Allocation of Killingworth Moor following engagement with the local community**



Working in partnership with  
**CAPITA**

# Killingworth Moor Masterplan

December 2017



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## 1. INTRODUCTION

### 1.1 Killingworth Moor Strategic Site

The Local Plan for North Tyneside sets out the next phase of growth within the Borough and will see the delivery of at least 16,500 new homes up to 2032. A key component of this growth will be the development of the two Strategic Allocations; Killingworth Moor and Murton Gap.

Killingworth Moor is included as a Strategic Allocation in the North Tyneside Local Plan to deliver approximately 2,000 homes together with education facilities, local services, employment uses, green infrastructure and amenity space.

#### *Site Boundary*



The site is approximately 190 hectares. The site is located to the south west of the A19 which is part of the strategic road network and sited between the residential areas of Killingworth (located to the west of the site); and Forest Hall and Palmersville (located to the south and south west of the site). The Metro line forms a boundary for part of the site to the south east. The site is mainly comprised of agricultural land, with the High Farm located to the north and Holystone Farm located to the south of the site. A number of public footpaths are also present

within the site boundaries. New residential developments of Heritage Green by Miller Homes and Brierdene by Story Homes are currently under construction to the east of the site. Stephenson Park by Bellway Homes is under construction on the former Reme depot which falls within the boundary of this Masterplan.

### 1.2 Purpose and Status of Masterplan

The purpose of this Masterplan is to set out the vision for the development of Killingworth Moor and provide a framework for ensuring the delivery of the vision. This Masterplan demonstrates the Council, Persimmon Homes and Killingworth Moor Development Consortia's joint commitment to the creation of high quality sustainable neighbourhoods. The Masterplan will ensure that development is brought forward in a co-ordinated manner that enables an early delivery of housing development on Killingworth Moor to meet the identified needs of the Borough whilst ensuring the provision of additional infrastructure and protection of the quality of life and amenity of all residents.

This Masterplan has been considered in collaboration between the Council, Persimmon Homes and the Killingworth Moor Development Consortia. The Masterplan has been prepared with engagement with existing communities, residents and businesses affected by proposals for development of this site. The Masterplan, as agreed by North Tyneside Cabinet is a material consideration in the planning application process. A planning application for all or any part of the Killingworth Moor strategic allocation will need to demonstrate that it meets the requirements of the Masterplan to ensure consistency and delivery of the key policy and design objectives for Killingworth Moor.

### 1.3 Partnership Working

The Masterplan has been prepared by Capita North Tyneside in collaboration with North Tyneside Council, Persimmon Homes and a Development Consortia for Killingworth Moor, which includes:

- Bellway Homes
- Banks Group
- Northumberland Estates

The Developer Consortia has had support from specialist technical consultants including GVA and Pod architects. Advice and guidance has also been provided by ATLAS (Advisory Team for Large Applications) which is part of the Homes & Communities Agency.

### 1.4 Development of the Masterplan

Through regular meetings, the Developer Consortia and the Council have developed the core principles for the Masterplan. These have regard to the Concept Plan for the site that forms part of the Local Plan Policies Map. The Masterplan has been developed in accordance with

the policy requirements of the Local Plan and the requirement to ensure a comprehensive approach is adopted towards the development of the strategic sites.

A draft Masterplan was presented to the North East Design Review Panel in October 2016 to review and discuss the key design principles for the Masterplan. The presentation was prepared and presented by Pod architects on behalf of the Developer Consortia. Key stakeholders such as the Highways Agency, Nexus, the Environment Agency and departments of the Council were also consulted throughout development of the Local Plan and preparation of this Masterplan. This has ensured that all parties were given the opportunity to shape the proposals and ensure the Masterplan responds to the impacts of development upon the sustainability of the Borough and its infrastructure.

There has been an on-going process of wider engagement with the local community through the preparation of the Local Plan which has been taken into account in the preparation of the Masterplan. The current public engagement aims to secure the views and valuable input of existing communities, before the Masterplan is adopted.

As part of the Masterplan preparation, a four week public Engagement was undertaken from the 23<sup>rd</sup> October – 20<sup>th</sup> November 2017. This has assisted in providing a scheme which, as far as possible, reflects the wishes and aspirations of all key stakeholders. A separate Engagement Statement has been prepared which details the key issues and responses.

### **1.5 Supporting Information**

The Masterplan has been developed on an evidence base of technical and supporting studies. This includes a core of development framework documents that have been prepared and evolved since 2015 and will provide, alongside the completed Masterplan, the key evidence and policy framework for delivery of the Killingworth Moor Strategic Allocation:

- Strategic Concept Framework Plan (Pick Everard, 2015)
- Killingworth Moor and Murton Gap Outline Development Framework (Arup, June 2016)
- North Tyneside Local Plan 2017
- North Tyneside Local Plan evidence based and supporting documents
- Killingworth Moor Developer Consortium representations and Delivery document (2015)

A complete list of evidence base documents is included at Appendix 1.



## 2. VISION AND OBJECTIVES

### 2.1 Vision

The development of Killingworth Moor will deliver approximately 2,000 new homes and an area of employment land in a way that contributes towards the quality of the environment and sense of identity in North Tyneside. The area will connect with and benefit adjacent communities but will have its own identity and sense of place and consist of walkable, connected neighbourhoods, within a green, natural environment providing valuable habitat for wildlife and recreation. The site will fully link into existing networks of streets, footpaths and cycleways and support sustainable travel whilst ensuring enhancements to the road network to address traffic issues and safeguard air quality. New social infrastructure including a primary school, secondary school and local centre will create a vibrant and sustainable community within North Tyneside which is a desirable place to live, work and learn.

### 2.2 Objectives

The identified objectives reflect the key issues to be addressed in order to achieve the vision. Killingworth Moor will:

- a. Consist of a series of well-connected neighbourhoods, character areas, experiences and environments. These will form an overall coherent and distinctive new community with its own character and identity.
- b. Be developed around existing vistas, landscape and heritage assets to protect and enhance positive features. New areas of open space will form an integrated network of green infrastructure to ensure the delivery of a healthy natural environment benefiting communities, wildlife and biodiversity.
- c. Benefit from strong landscape features and green corridors that will permeate the site. To the south west of the site a strategic break will ensure Killingworth Moor, Palmersville and Forest Hall remain distinctive, separate communities.
- d. There will be a mixture of housing tenures, types and sizes reflecting the diverse needs of North Tyneside's growing and aging population; including general needs housing, affordable housing, executive housing, specialist needs and consideration given to the opportunity of providing self-build plots.
- e. A new link road will connect Palmersville to Killingworth Way which will comfortably accommodate cars, buses and bicycles and provide a new strategic link within North Tyneside's road network. There will be distinct arrival points from Great Lime Road to the south and Killingworth Way to the north. The road should have generous grass verges, landscaping and positive active frontages.
- f. A clear street hierarchy will radiate away from the link road including a secondary road link and underpass to the A19 providing road, public transport, pedestrian and cycle connectivity to Northumberland Park district centre. Gateway features into each parcel of development will create landmarks to facilitate movement.
- g. A central area of open space and a local centre to serve the site will provide a natural focal point for the whole site. This area should be treated as a mini park with seats, grass, planting, play area, walkways and opportunities for small community events.
- h. The Primary and Secondary School will be co-located to facilitate ease of use and maximise the opportunities of shared resources. To ensure a good relationship between different uses on the site, school playing fields will provide a green buffer between the commercial quarter and residential housing.
- i. Access to local jobs for new and existing residents and the wider workforce will be created by developing a commercial quarter for new or expanding businesses. The commercial quarter and secondary school will be located closely to maximise opportunities for collaboration between education and the workplace.
- j. The site will include the provision of high-quality community facilities and services (such as allotments and play sites) to meet identified needs. These will be located in accessible areas around the site and delivered in line with the development phasing plan.
- k. The layout will create an effective and efficient local transport and highway network which promotes sustainable modes of transport and ensures the opportunity to deliver a new Metro Station on the site can be achieved
- l. Sustainable drainage will form an integrated part of the landscape created on the site to ensure that draining and flood risk issues are fully addressed whilst connecting with and enhancing green infrastructure and wildlife value of the area.

### 3. PLANNING POLICY

#### 3.1 Site Allocation Background

Prior to the adoption of the Local Plan in July 2007, Killingworth Moor was identified as safeguarded land in the Unitary Development Plan (UDP) 2002. The purpose of safeguarded land was to provide a range and choice of development options after the end of the plan period. The UDP was clear that safeguarded land is capable of development when needed.

The strategic allocation of Killingworth Moor was first considered, but not included as a potential site, as part of preparation of the Core Strategy Preferred Options 2010. The North Tyneside Local Plan Consultation Draft 2013 included the strategic allocation as a potential development option. The next Local Plan Consultation Draft was informed by updated evidence of the Borough's Objectively Assessed Need for housing and a revised plan period to 2032. Following consideration of the Borough's potential site options within the 2013 Local Plan Consultation Draft, the strategic allocation was included as a preferred site for residential development. Following this the strategic allocation was included in the Local Plan Pre-submission Draft, November 2015, as submitted to the Secretary of State.

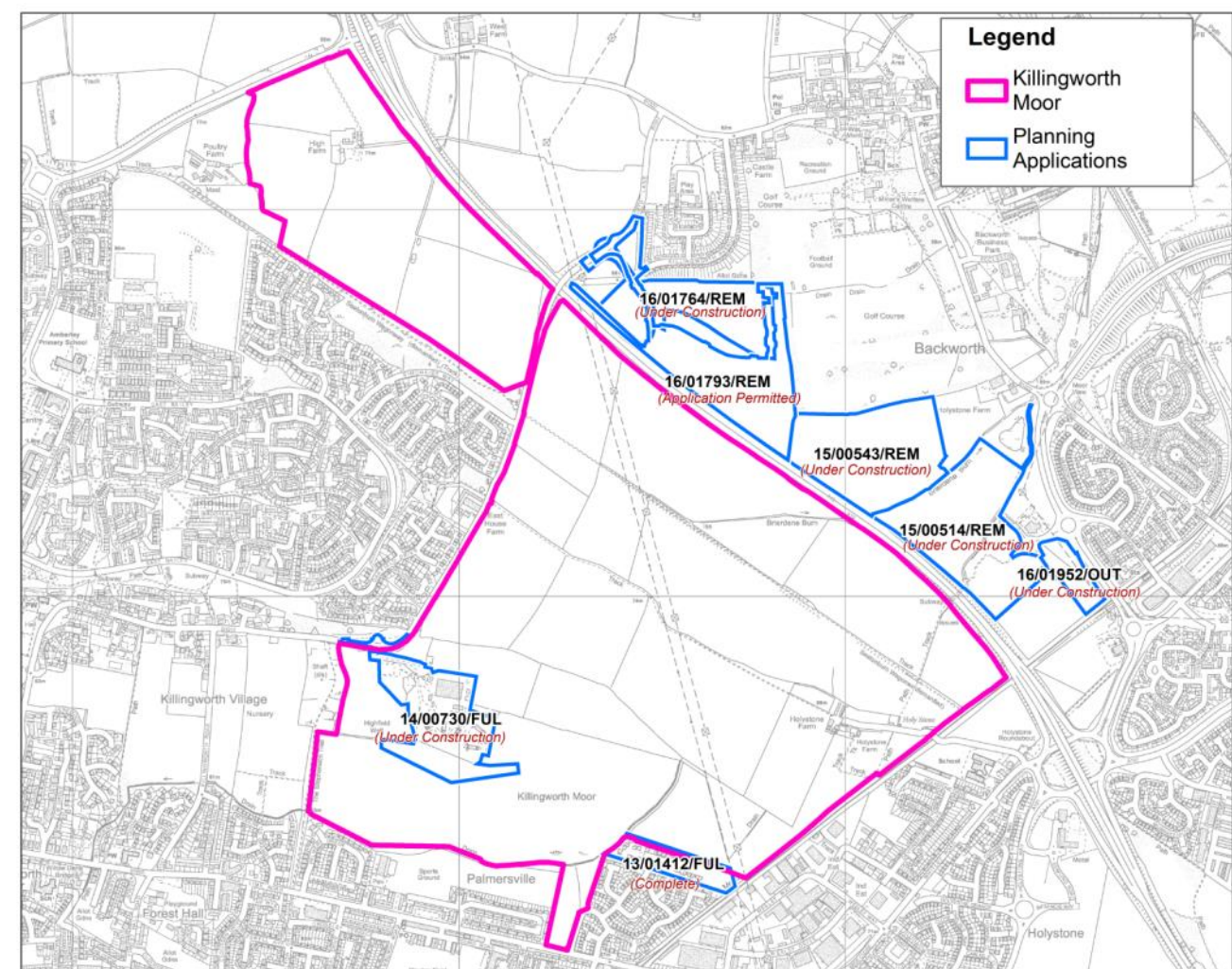
#### 3.2 Planning Application History

In the local area surrounding Killingworth Moor there are a number of developments which are both planned and under construction. These are shown on the plan below and include:

- 125 dwellings at the former REME depot within the boundary of the strategic allocation.
- Almost 900 dwellings approved through a number of planning applications to the east of the A19 at Backworth Park.

With construction underway in both of these locations, a strong and demonstrable housing market exists and sets an evolving context for the nature of the area surrounding the strategic allocation.

#### Residential Planning Applications





### 3.3 National Planning Policy Framework

The National Planning Policy Framework (NPPF) sets out that the purpose of planning is to help achieve sustainable development. The NPPF states in paragraph 16 that local authorities should “plan positively to support local development”. Furthermore, the planning system should do everything it can to “support sustainable economic growth” (paragraph 19) and that Local Plans should be “aspirational but realistic” (paragraph 154).

The Government’s key planning objective is to deliver new sustainable development. This includes:

- Making it easier for jobs to be created in cities, towns and villages
- Improving the conditions in which people live, work, travel and spend leisure time
- Increasing the supply and choice of homes

At the heart of the NPPF is the presumption in favour of sustainable development which requires Local Plans to be positively prepared and identify sufficient land to meet development needs, to:

- Secure economic growth to build a strong, competitive economy.
- Prepare an aspirational but realistic Local Plan.
- Ensure the vitality of town centres, creating a diverse retail offer and providing consumer choice.
- Significantly boosting the supply of new homes, and providing the size, type, tenure and range of housing which local communities need.
- Conserve and enhance the natural environment.
- Promoting healthy, inclusive communities by taking an integrated approach to the provision of jobs, homes and community facilities.

The NPPF looks to ensure that developments function well and add to the overall quality of the area. It also seeks to optimise the potential of a site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks.

Killingworth Moor is located in a sustainable location, in relation to the existing infrastructure, services and amenities. The development of Killingworth Moor will contribute towards sustainable development through proactively driving and supporting sustainable economic development in a strategic location within the A19 corridor.

### 3.4 National Planning Practice Guidance

The National Planning Practice Guidance (NPPG) provides further context to the NPPF. The NPPG contains various guidance of relevance to the registration, processing and consideration of planning applications for proposed development. One of the key components of the NPPG is the issue of design, acknowledging that good quality design is an integral part of sustainable development. It establishes that: “Good design responds in a practical and creative way to both the function and identity of a place. It puts land, water, drainage, energy, community, economic, infrastructure and other such resources to the best possible use”.

The NPPG also offers further practical advice in the following areas, of relevance to the proposed development:

- Conserving and enhancing the historic environment
- Flood Risk and Coastal Change
- Health and wellbeing
- Housing and economic development needs assessments
- Housing and economic land availability assessment
- Natural Environment
- Noise
- Open space, sports and recreation facilities, public rights of way and local green spaces
- Travel plans, transport assessments and statements
- Viability
- Water supply, waste water and water quality

### 3.5 Local Planning Policy

North Tyneside Council submitted its Local Plan to the Secretary of State for examination on 30th June 2016. The Local Plan Examination in Public was undertaken in November and December 2016 and the Plan was adopted in July 2017. This Masterplan is anticipated to be adopted in December 2017 following engagement with the local community.

The Local Plan sets out the Council’s aspirations for the Borough, including to:

- Diversify, strengthen and grow the local economy, providing excellent job opportunities for all.
- Provide an appropriate range and choice of housing to meet current and future needs.
- Protect and enhance the natural and built environment.

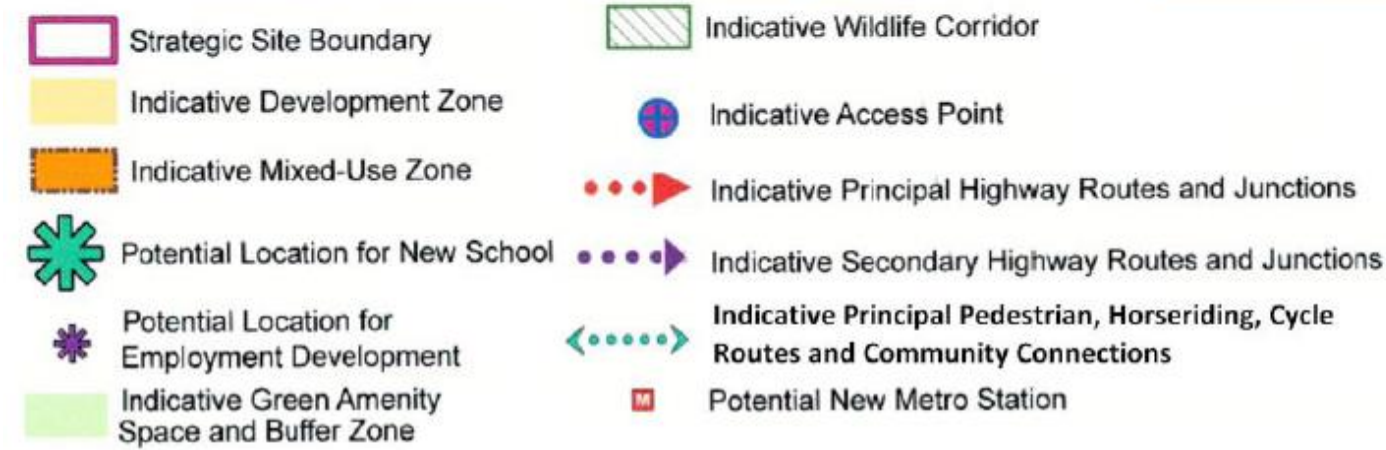
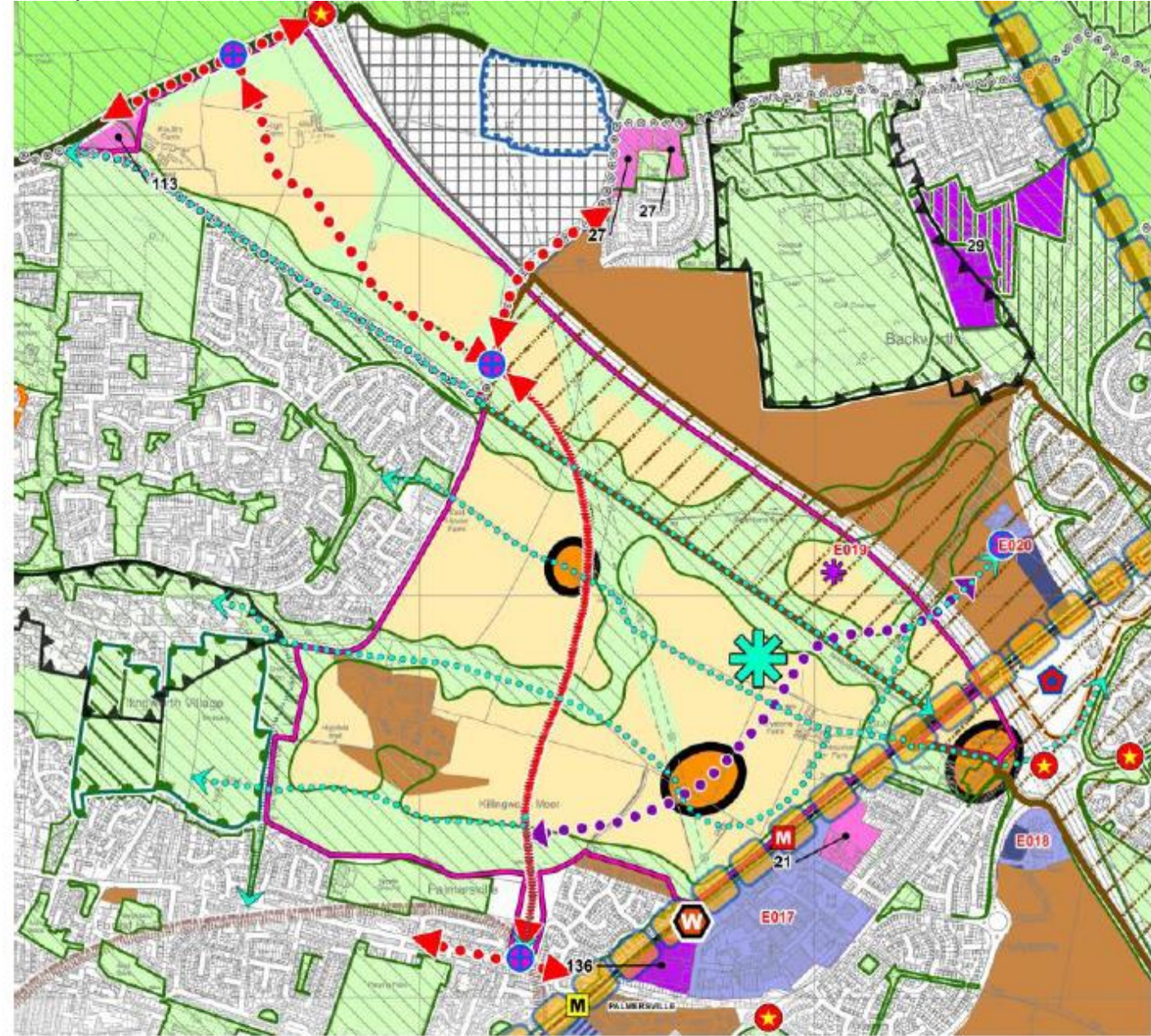
There are two policies in the Local Plan which are directly related to Killingworth Moor Strategic Site. These policies are summarised below.

#### **Policy S4.4(b) Killingworth Moor Strategic Allocation Concept Plan**

*A Strategic Allocation is identified at Killingworth Moor (Sites 22 to 26) to secure the delivery of approximately 2,000 homes during the plan period in a mix of housing tenures, types and sizes, informed by available evidence of the housing needs of the borough, convenience retail provision of approximately 500sqm and 17 hectares of employment land. The key principles for development of the Killingworth Moor strategic allocation are illustrated on the Policies Map through an indicative Concept Plan.*



Concept Plan



The indicative Concept Plan for North Tyneside adopted as part of the Local Plan sets the core principles that future development at Killingworth Moor should respond to. The approach identified within the Concept Plan provided flexibility for future development of this Masterplan and subsequent planning applications to respond to emerging issues and evidence. In particular the further detailed understanding of the following elements will be established during the development of the detailed Masterplan:

- Highway routes
- Housing numbers, density gradients or the amount of development within the development zones
- Actual uses or content of the mixed-use hubs
- Site specific locations of any uses
- Locations of specific housing tenures or accommodation
- Sustainable drainage systems

**S4.4 (c) Applications for Delivery of the Strategic Allocations**

*Applications for Delivery of the Strategic Allocations states that applications for planning permission will be granted where identified criteria are met. Criteria include consistency with a comprehensive master plan, conformity with the principles of the Concept Plans, phasing and delivery strategy, transport strategy. In addition the criteria include a requirement that a landscape and visual amenity impact assessment is provided identifying key features of note on each site, demonstrating an appropriate design response (e.g. the location, orientation, density of development and landscape/planting treatment). Design quality will be secured through the application and use of appropriate design standards agreed as part of the Masterplans.*

The Masterplan must respond to the policy requirements and provide a detailed framework for the subsequent submission of planning application(s) on the site. The indicative Concept Plan provides the key principles which have shaped the design and layout of the Masterplan. Planning applications will need to be consistent with the Masterplan. Other policies in the Local Plan will also be relevant for future planning application(s). All applications will need to set out how they have addressed the policy requirements and Masterplan to ensure that a comprehensive, sustainable and deliverable development comes forward.

Other key policies in the Local Plan are set out below.

**Policy DM6.1** *Design of Development states that applications will only be permitted where they demonstrate high and consistent design standards. Designs should be specific to the place, based on a clear analysis of the characteristics of the site, its wider context and the surrounding area.*

**Policy DM5.5** *Managing effects on Biodiversity and Geodiversity states that applications should protect the biodiversity and geodiversity value of land, protected and priority species*



*and minimise fragmentation of habitats and wildlife links. They should also maximise opportunities for creation, restoration, enhancement, management and connection of natural habitat and incorporate beneficial biodiversity and geodiversity conservation features providing net gains to biodiversity, unless otherwise shown to be inappropriate.*

**Policy DM5.7 Wildlife Corridors** states that development proposals within a Wildlife Corridor must protect and enhance the quality and connectivity of the Wildlife Corridor. All new developments are required to take account of and incorporate existing wildlife links into their plans at the design stage. Developments should seek to create new links and habitats to reconnect isolated sites and facilitate species movement.

**Policy DM7.4 New Development and Transport** states that the transport requirements of new development must be proportionate to the scale and type of development including how accessible the development is and existing public transport levels. Car and cycling space provision must be in line with standards set out in the Transport and Highways SPD (LDD12). Opportunities for public transport improvements should be identified. New developments in close proximity to public transport facilities will be required to provide a higher density of development to reflect increased opportunities for sustainable travel. On developments considered appropriate, the Council will require charging points to be provided for electric vehicles.

**Policy DM5.9 Trees, Woodland and Hedgerows** states that where it would not degrade other important habitats the Council will support strategies and proposals that protect and enhance the overall condition and extent of trees, woodland and hedgerows in the Borough. Planting schemes included with new development must be accompanied by an appropriate Management Plan agreed with the local planning authority.

When considering planning applications for development, the Local Plan should be read as a whole and all relevant policy will provide potentially material considerations in their determination. Additional planning policy to those identified above of importance when considering major development schemes such as this include:

**DM7.6 Renewable Energy and Low-Carbon Technologies** This encourages the local production of energy from renewable and low carbon sources to help to reduce carbon emissions. The Council will also encourage and support community energy schemes that reduce, manage and generate energy to bring benefits to the local community.

The Council is interested in supporting opportunities for renewable energy generation and sustainable construction at the strategic allocations in partnership with the Development

Consortia. Such projects would reflect key Council priorities established through the Low Carbon Plan 2016-2027.

**DM7.9 New Development and Waste** This policy provides the basis for guidance on the nature and approach to designing waste collection facilities into new development.

**DM5.12 Development and Flood Risk**

**DM5.13 Flood Reduction Works**

**DM5.14 Surface Water Run off**

**DM5.15 Sustainable Drainage**

This collection of policies set the core expectations and framework for the consideration of the impact of development upon flood risk and surface water drainage. An integral part of the policy approach of the Local Plan is to ensure new development does not increase flood risk for existing properties or subject new properties to flood risk.

### 3.6 Supplementary Planning Documents

The relevant Supplementary Planning Documents (SPDs) are set out below which should be considered as detailed plans develop:

**LDD8 Planning Obligations:** Sets out the approach to requesting contributions towards infrastructure from developers.

**LDD11 Design Quality:** Provides guidance on how developments can ensure they are sustainable and achieve a high quality of design in a way that respects the local context.

**LDD12 Transport and Highways:** Sets out the procedures that the Council follows in order to ensure that the transport implications of new developments are rigorously and consistently assessed and appropriate measures secured. The SPD also sets out parking standards for new developments.

### 3.7 Community Infrastructure Levy

The Council is currently consulting on the Community Infrastructure Levy (CIL) Preliminary Draft Charging Schedule. The strategic sites may be subject to CIL to secure appropriate infrastructure provision.

## 4. BASELINE SUMMARY

### 4.1 Site Features

Killingworth Moor is primarily comprised of agricultural land. There are 2 farms on the site; High Farm located to the north and Holystone Farm located to the south of the site. There are some existing individual residential dwellings on the site including Holystone Cottage located to the south east of the site and a bungalow to the north of Moorfield Drive. These farms and residential dwellings are privately owned and, although they are within the Site boundary, they are not part of the development.

Pylons cross the centre of the site. Brierdene burn is located to the east of the site. The site is crossed with a number of footpaths used for leisure and recreation. There is a pedestrian underpass under the A19. The B1317 crosses the site and the road goes over the A19, connecting Killingworth to Backworth.

### 4.2 Site Context

The site is located in the north west quarter of the Borough and to the west of the A19. It is situated between Killingworth and Backworth. The neighbourhoods surrounding the site are Holystone, Palmersville, Forest Hall, Killingworth Village, Killingworth and Backworth.

*Site Location in North Tyneside*



Killingworth contains a mixture of residential housing estates, public open space and playing fields – as well as the town centre of Killingworth. A number of residential proposals within and bounding the site are also under construction or have planning approval.

The site is bound by the A19 to the east and Killingworth Way to the north. To the north of Killingworth Way and the A19 is designated green belt land. The Tyne and Wear Metro line forms a boundary to the south-east whilst Forest Hall Letch and Palmersville characterise the boundary to the south west.

The local centre of Northumberland Park and Killingworth town centre are within a 1 mile radius of the site. The Metro stations of Palmersville and Northumberland Park are near the site. The site is within walking, cycling and 10 minute driving distance of a number of employment areas including Benton Square, Indigo Park and Camperdown Industrial Estate. The site is also accessible to large employment areas including Cobalt Business Park, Quorum Business Park, Gosforth Business Park, and Silverlink.

Masterplan Considerations:

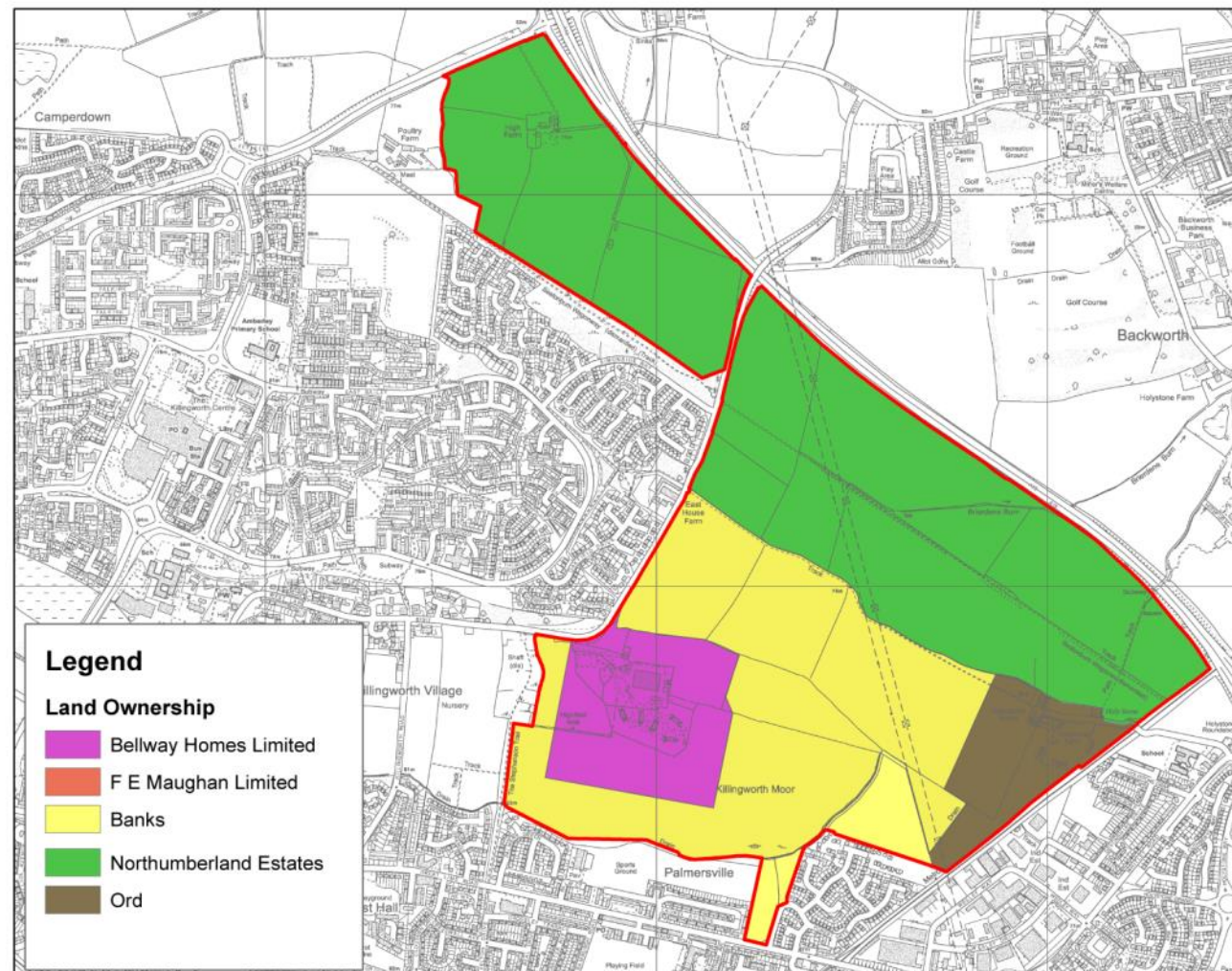
- Enable easy access to the surrounding context of the site, including improved access to employment sites, open space and local facilities and services.
- The visual amenity and privacy afforded to existing properties must be considered in the placement of new development.



### 4.3 Land Interests

Land interests are primarily divided between Bellway Homes, Northumberland Estates and the Banks Group (controlling interest). These landowners form the Killingworth Moor Consortia. The Ord Family own approximately 10.5 hectares of land which is now under the control of Persimmon Homes, They have been fully informed to date and are content to have their land included within the land allocation.

#### Land Interest Plan



### 4.4 Access and Transport

#### Vehicle Movement

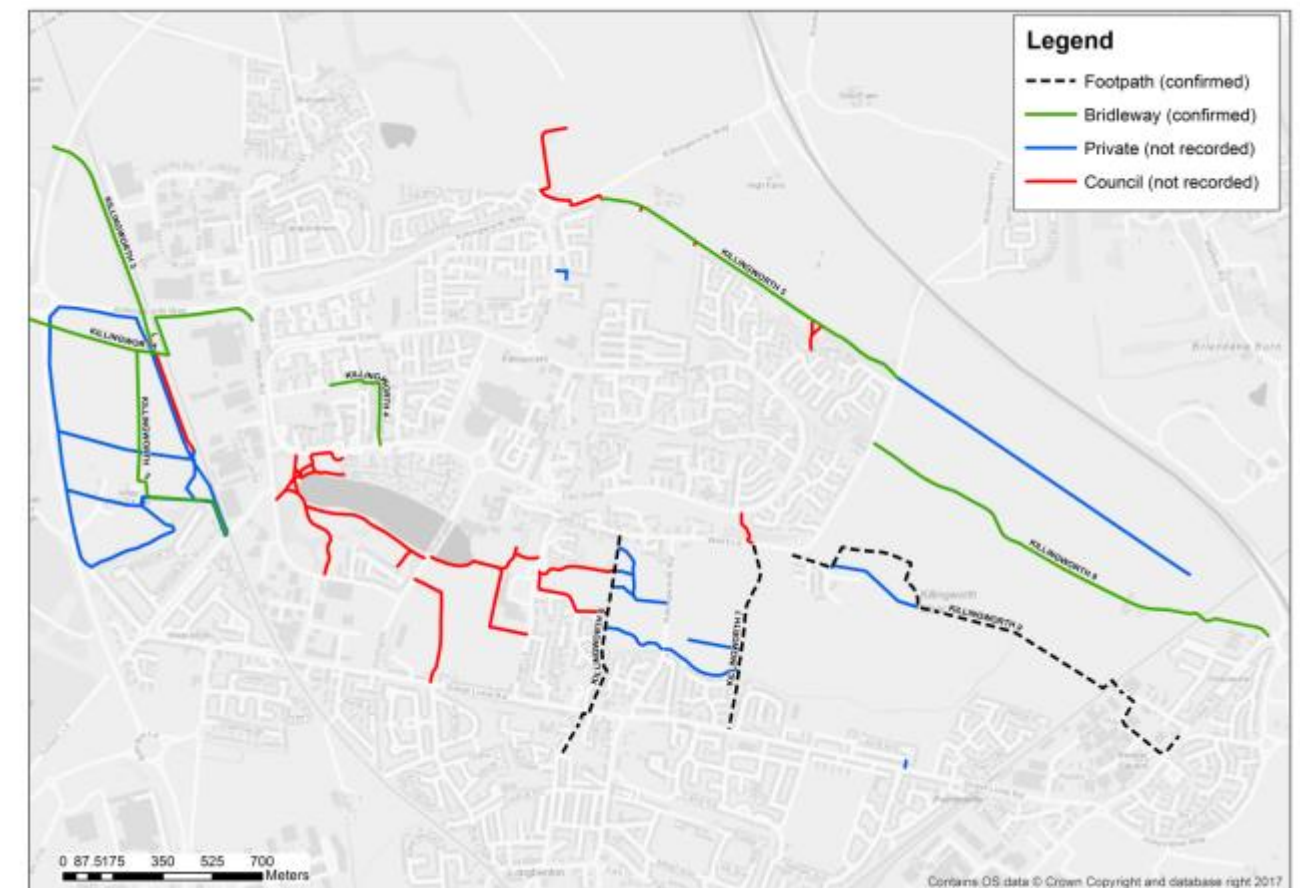
The site is bound by Killingworth Way to the north; the A19 to the east; Great Lime Road to the south; and the B1317 to the west. The existing highway infrastructure presents a number of options for access into the development area; and good linkage to local and regional amenity. Highways England have identified the potential future widening of the A19 at this location to 3 lanes.

#### Pedestrian Movement

The existing pedestrian and cycling routes on the site are shown in the plan below. The line of the now dis-mantled Seaton Burn waggonway runs through the site. The A19 presents a barrier to pedestrian and cycle movement to the north east of the site with the only crossing points being the B1317 bridge and a pedestrian underpass.

The surrounding area has an extensive network of country walks and Public Rights of Way, and National Cycle Route 10 which extends from Shiremoor to the north of Killingworth, providing good opportunities for recreation.

#### Existing Pedestrian and Cycle Links



#### Public Transport

Metro stations at Palmersville and Northumberland Park are both within walking distance of the site. There are some existing bus routes around the edges of the site on Great Lime Road and West Lane.

#### Masterplan Considerations

- Connect to existing routes where possible, providing new access to and from the site into the wider locality.



- Incorporate the Seaton Burn Waggonway into the site layout as a pedestrian and cycle connection.
- Consider the best points of access and links between the site and the existing road network.
- Mitigation of potential adverse effects of development traffic on the local and strategic road network and have regard to potential future widening of the A19.
- Additional public transport provision will be required to achieve sustainable travel for the site. Consideration for an optimum route for a bus service through the site should be considered in the Masterplan as well as a location for a potential new Metro Station.

#### 4.5 Local Services and Facilities

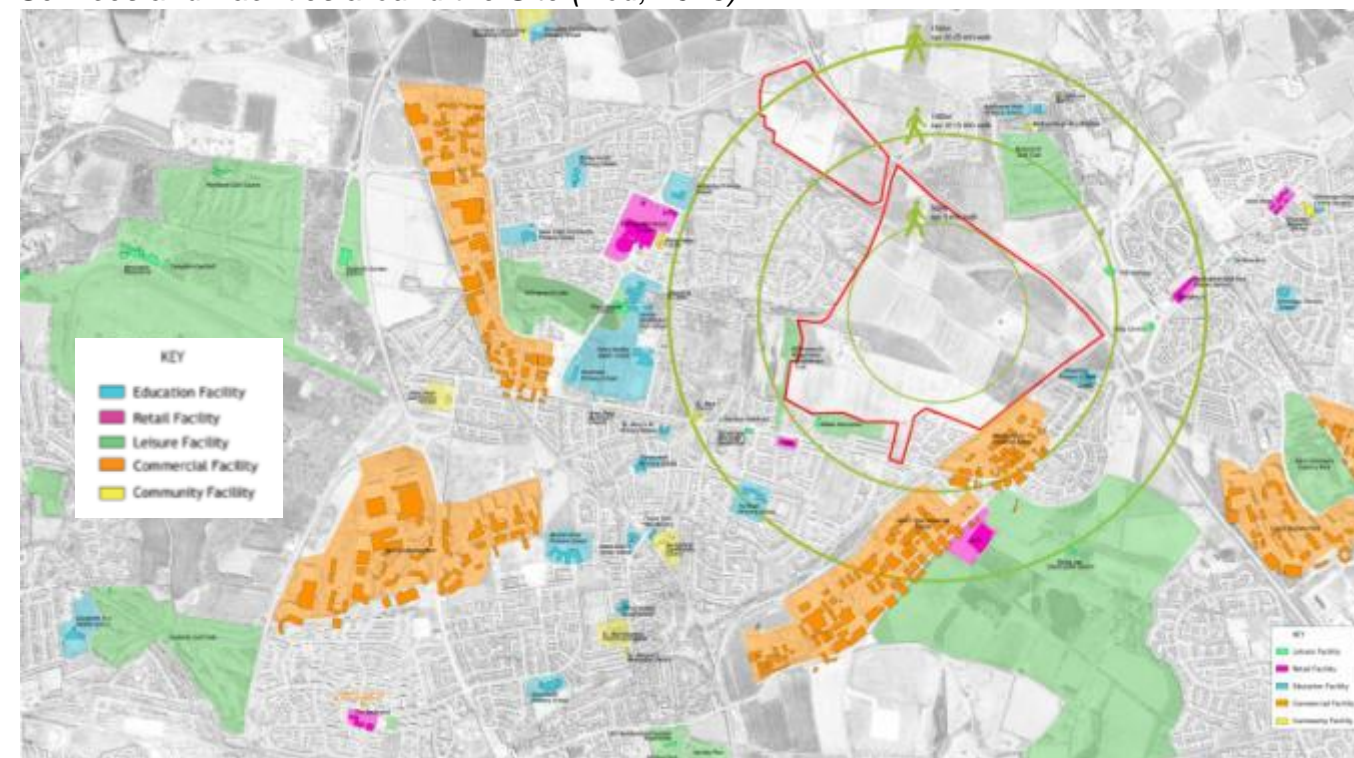
The site is well located to be within walking distance of a wide range of shops, essential services (including schools and a medical practice) and leisure opportunities. The site is therefore sustainably located in respect of access to key services and facilities including:

- Existing Business Parks
- Killingworth Arms Public House
- White Swan Centre (Library and Service Centre)
- ALDI, Great Lime Road
- General Practitioner
- Post Office
- Killingworth Centre (shops, restaurant, services)
- Morrison's Supermarket, Killingworth
- The Lakeside Centre (Leisure Centre)
- Backworth Golf Club
- Northumberland Park District Centre
- A range of pubs and restaurants including The Pavilion, Toby Carvery and Killingworth Arms

The following education facilities are located within the catchment area of the site;

- Holystone Primary School is the closest existing school to the Killingworth Moor site, located to the south of the site within Holystone Village.
- Longbenton High School located to the south west of the site.

Services and Facilities around the Site (Pod, 2016)



Masterplan Considerations:

- Include a Local Centre within the Masterplan to complement existing services around the site.
- Review requirements for new education infrastructure arising from both existing and new development and the appropriate location for provision within the site.
- Include an employment quarter in the Masterplan to provide business and employment growth opportunities.

#### 4.6 Topography and Landscape Character

The site is largely made up of a series of agricultural fields, mostly bordered by hedgerows. To the south and west there are some fragmented field boundaries and agricultural fields are large. The site previously contained a derelict depot where residential development is under construction. Pylons also running in a north south direction roughly in the middle of the site. There are clusters and lines of mature deciduous trees around Holystone Farm to the south of the site and in the north-east and northern areas of the site.



*Pylons crossing the site*



*Stephenson Park Development (Bellway)*



The site has high points to the west, gently sloping downward to the north, east and south; with local low points at the southern site boundary and south-eastern edge. Settlements to the west and south generally present their backs to the spaces and are separated by highways, a sunken Metro line and the A19 strategic highway.

The majority of views are gained from nearby points of access, roads and rights of way. When viewed from the west and the north, the landscape is experienced in the backdrop of buildings including the settlement of Backworth, Holystone and Palmersville. In views from the west and north across the southern area of the site there are also views to Benton Square Industrial Estate which forms a strong urban edge, adjacent to the Metro line. From the east there are views of open fields with fragmented hedgerows and also of the industrial estate and housing in Holywell and Palmersville. The line of pylons across the site is visible in most of the available views which look into the site. The southern area of the site is enclosed from the east by the embankment and line of mature deciduous trees along the edge of the A19 dual carriageway.

*View looking south from the Wagonway*



*View looking east from West Lane*



*Site Contours (Pod, 2016)*





#### Masterplan Considerations:

- In order for development to sit successfully into its wider context, the Masterplan layout should provide green infrastructure connections through the site.
- Where possible, hedgerows, tree groups, copses and field boundaries should be integrated into the Masterplan layout.
- The pylons will need careful design in mitigation, avoiding long views focusing upon the tower structures. Alternatively where long views of the pylons are unavoidable, landscaping should help to integrate the pylons into the landscape.

#### 4.7 Ecology

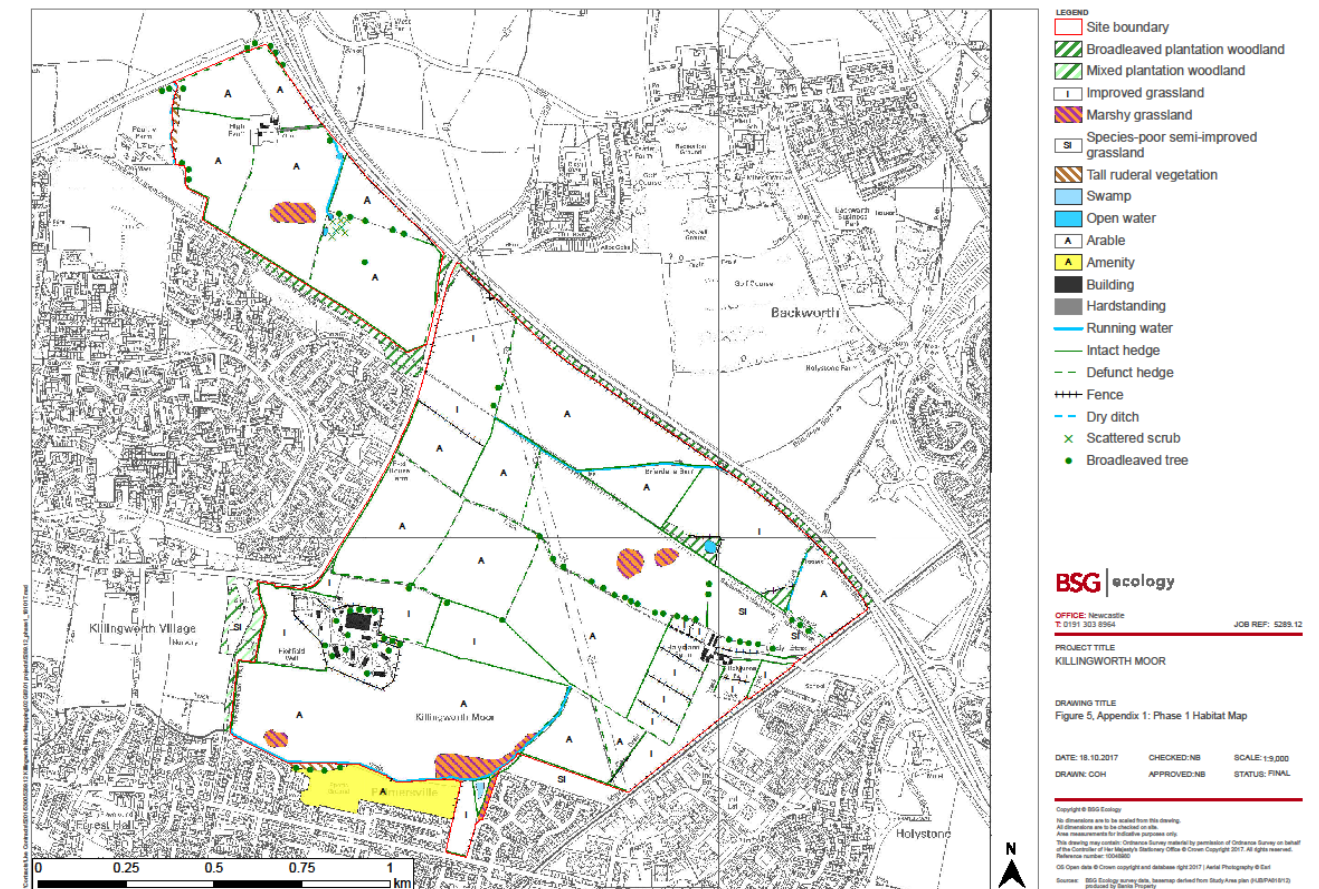
There are no statutory designated sites located within a 2km radius of the site; however there are six Local Wildlife Sites (LWS) and seven Sites of Local Conservation Interest (SLCI) located within 2km of the development. The main habitats present within the site are arable land and improved and poor semi-improved grassland, which collectively cover the majority of the site. Areas of marshy grassland of varying size are present in the northern, central and southern parts of the site. Occasional small areas of semi-improved neutral grassland are present in the southern part of the site.

Open water is present in the northern part of the site and the Brierdene Burn flows across the north-eastern part of the site. Other ditches containing water following periods of rainfall are on the site. Small areas of broadleaved plantation are present around the site and along some field boundaries and public footpaths and scattered scrub is present in the north-western and central parts of the Site. Dense vegetation is present within some of the grassland fields and bordering the majority of hedgerows.

#### Species identified using or having potential to use the site includes:

- Foraging or commuting bats
- Potential great crested newts
- Breeding birds
- Wintering birds
- Badger

#### Ecological Habitats



#### Masterplan Considerations:

- Explore opportunities to improve habitat value compared to the current agricultural use.
- Maintain and create wildlife corridors running through the site as green corridors.
- Where possible, existing pond features and their surrounding habitats should be retained as part of a wider drainage strategy.
- Enhance landscaping around the existing Waggonway to support wildlife.
- A landscape strategy should form part of the design process for the masterplan which shows different types of green infrastructure, wildlife corridors and their functionality.

#### 4.8 Drainage and Flood Risk

There are four main watercourses which run through the site; Forest Hall Letch, Brierdene Burn and two unnamed tributaries. The majority of the site is in Flood Zone 1 with a 0.1% chance of flooding in any year. A small proportion of land has been identified as residing in Flood Zone 2 and 3. This is the area immediately to the south of Forest Hall Letch. The site is located within a critical drainage area, as defined by the 2012 North Tyneside Surface Water Management Plan.



The risks of fluvial flooding of the site is considered low and limited to a localised area on the south side of Forest Hall leech. The risk of flooding from surcharge of the existing sewerage infrastructure is considered low.

#### Masterplan Considerations:

- The Masterplan should be based on a comprehensive drainage strategy which provides full flood mitigation across the site.
- Deliver an integrated SUDs strategy across the site to complement the Masterplan and support delivery of attractive open spaces and areas for biodiversity and recreation.

## 4.9 Archaeology and Heritage

### Assets outside of the Site Boundary

*East House Farm:* Grade II Listed building, located to the west of Killingworth Moor, outside of the development site. Any impacts would be to the setting of the heritage asset.

*Killingworth Village Conservation Area:* Located to the west of the site. There could be an impact on the setting of the conservation area; however the development at Killingworth Moor would have minimal impact on the character and appearance of Killingworth Village conservation area.

*West Backworth Medieval Village:* The medieval village is located to the north west of the site. The Scheduled Monument includes both medieval earthwork and below ground remains and the remains of post medieval activity. Due to the underground and low-lying nature of the heritage asset, and due to the existing landscape between the proposed site and the medieval village, no negative impacts would arise from development.

*Killingworth Colliery:* The western boundary of the site adjoins the former Killingworth Colliery, known as High Pit and its associated wagonway. These are not designated heritage assets, nor are they on the local register. The site of the colliery and wagonway are not within the development site boundary, development adjacent to them should not have any negative impact.

### Assets within the Site Boundary

There are no statutorily protected buildings within the site; however a number of non-designated assets are on the site:

*High Farm:* The Farm is not designated or on the local register, however it does have some heritage significance. Some of the original buildings on the farm have been demolished, however the farm house remains.

*Holystone Farm:* The Farm is not designated and is not on the local register. The majority of the buildings have little to no architectural quality and Holystone Farm is considered to be of low heritage significance.

Holystone House is shown on maps of 1778. The historic farm buildings will require archaeological recording before demolition.

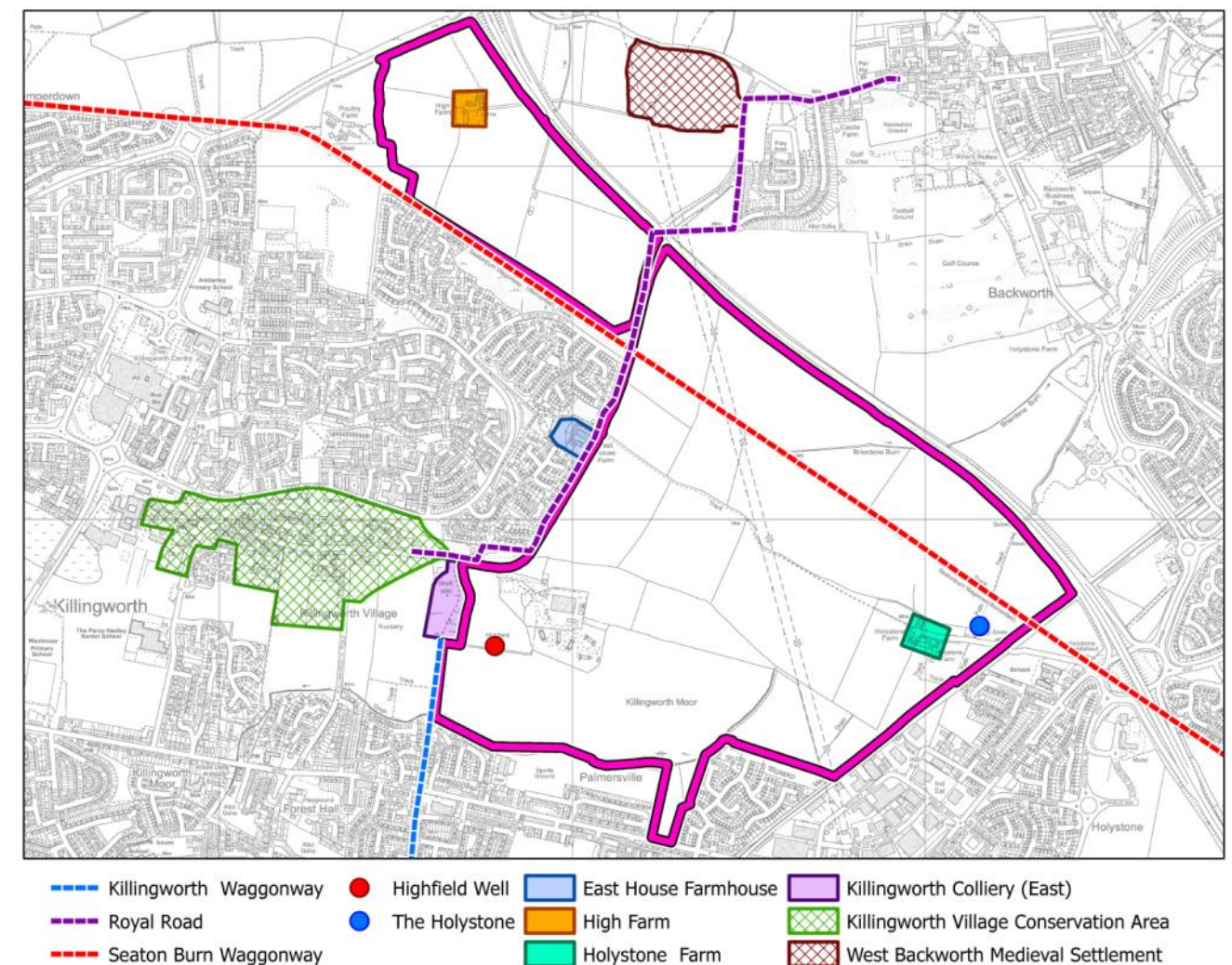
*Holy Stone:* The Holy Stone cross socket sits to the east of Holystone Cottage. The Stone is of high historical value in that it is understood to inform us of medieval land boundaries and suggests that the road on which it is located, now a private road, was once a significant route in the area.

*Seaton Burn Wagonway:* The route of the former Seaton Burn Wagonway runs northwest-southeast through the eastern part of the site. This wagonway served a number of collieries and is recorded on the Tyne and Wear Historic Environment Record.

*Highfield Well:* Located to the west of the site and is not a designated asset. The remains at the site do not appear to resemble an obvious well structure. The Highfield Well is of low heritage significance and its removal would have a low impact.

Other buried archaeological features may survive on this site, which can only be detected through archaeological fieldwork.

### Heritage Assets Plan (Heritage Statement, Capita 2015)





Masterplan Considerations:

- New development should be sympathetic of existing heritage assets; views from listed buildings and conservation areas should be screened from view with landscape buffers where possible.
- An area of open space between East House Farm and any new development is recommended to be provided in recognition of the building's use and traditional setting.
- There are existing site features that can be incorporated into the development including the Seaton Burn Waggonway and existing farm complexes.
- Further evaluation of the extent and significance of any archaeological resources which may exist on the site is required.
- Create a suitable area of open space around the Holy Stone cross socket to make it a focal point within the site.
- High Farm is an opportunity to make a positive contribution to local character and distinctiveness. New development should respond to the remaining farm buildings as an existing site feature.

#### 4.10 Noise and Air Quality

Noise at the site is predominantly due to road traffic on the A19 which is partly at the same ground level as the site and partly elevated. The Metro line is also a noise source that transfers into the site. Other noise sources include businesses to the south east of the site and the proposed primary and secondary schools.

An Air Quality Assessment will be undertaken on the site in order to consider the air pollutant concentrations in the area. The area is not located within an Air Quality Management Area and as such the air quality is likely to be good. The main consideration for impact is resulting pollutants from development traffic. This will be assessed, having utilised annual average daily traffic data for all affected roads from the Transport Assessment being produced for the site.

Masterplan Considerations:

- Noise sources must be considered in the positioning and orientation of proposed development, including, where necessary, the design and location of landscaped buffers and other noise attenuation measures.
- Consider air quality across the site. This should include air quality monitoring of the traffic flow plans with action to mitigate issues arising
- Consider electric charging points for vehicles

#### 4.11 Ground Conditions

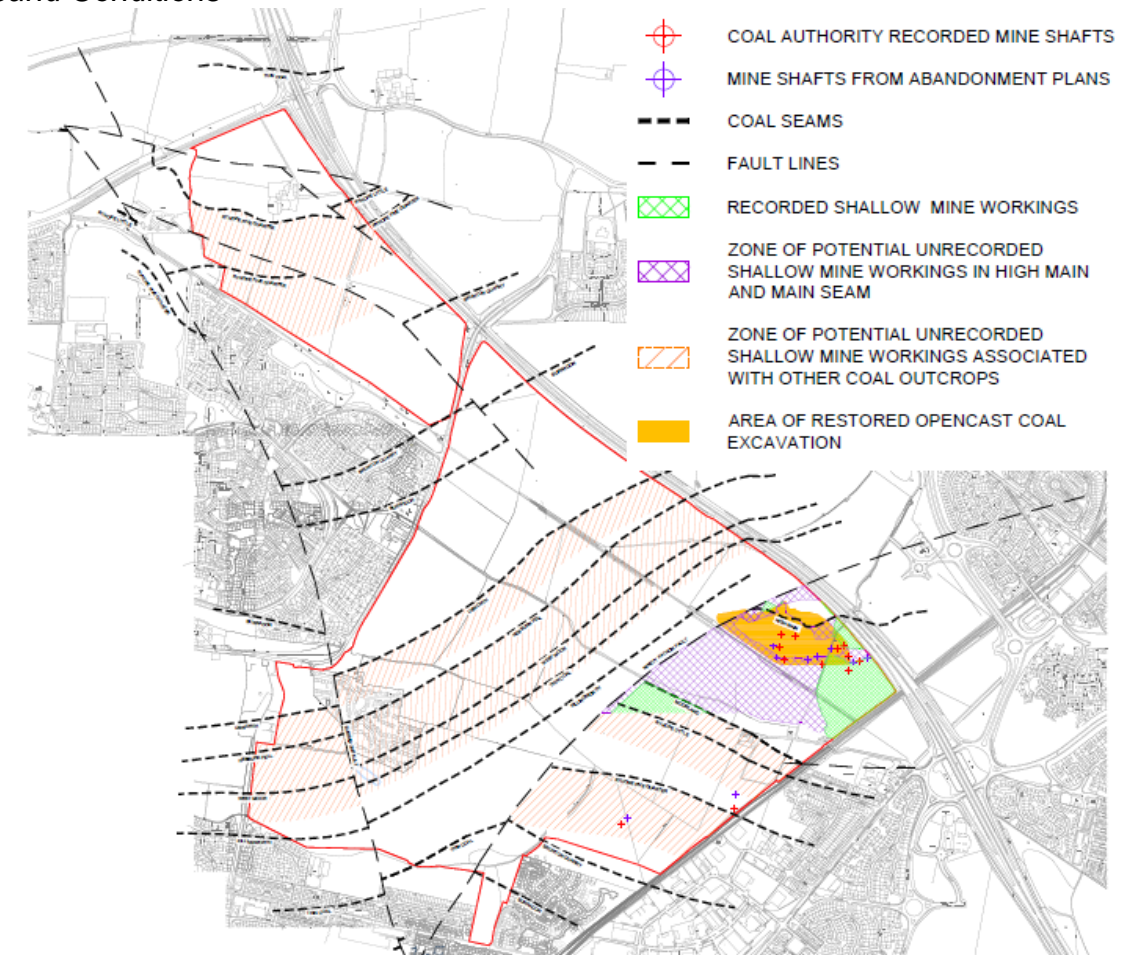
The potential risk to development of the site due to past mining activity is generally considered low, though higher risk areas are present within the east of the site. The following potential risks have been identified which are related to mining legacy:

- Eastern parts of the site are likely to be within influence of recorded (and unrecorded) shallow mine workings in the High Main and Main coal seams. Recorded mine workings in other seams beneath the site are likely to be at sufficient depth so as to not present a surface instability hazard.
- 14 mine entries are recorded on site, mostly within the east, though a number of these are likely to have been removed by later opencast mining.

- An area of former opencast mining targeting the High Main seam is present within the east of the site with a maximum depth of excavation of approximately 24 metres at its lowest point. This former void is anticipated to have been backfilled with poorly compacted spoil materials which is likely to present a ground stability hazard. A high wall feature will also be present which presents the potential for differential settlement.
- Parts of the site may be within influence of unrecorded shallow mine workings in several other coal seams of workable thickness that subcrop beneath the site. The areas of potential surface instability will be present in strips of land running parallel to the subcrop positions.

Palmersville Containment Cell is located to the south of the site and holds material that was relocated from an un-lined landfill on the original Forest Gate Development site. This area of land is currently constrained by an Environment Agency licence, for which the owners are currently in consultations with the Environment Agency regarding surrender. If and when the licence is surrendered the land may come forward for development in line with the Local Plan allocation provided that the applicant can demonstrate its suitability in terms of ground conditions and environmental health. Therefore this area could be suitable for future development subject to ongoing liaison with and agreement of the LPA with regards to appropriate detailed site conditions review, risk assessment, ground preparation and suitable foundation and ground gas protection solutions

#### Site Ground Conditions





## Masterplan Considerations:

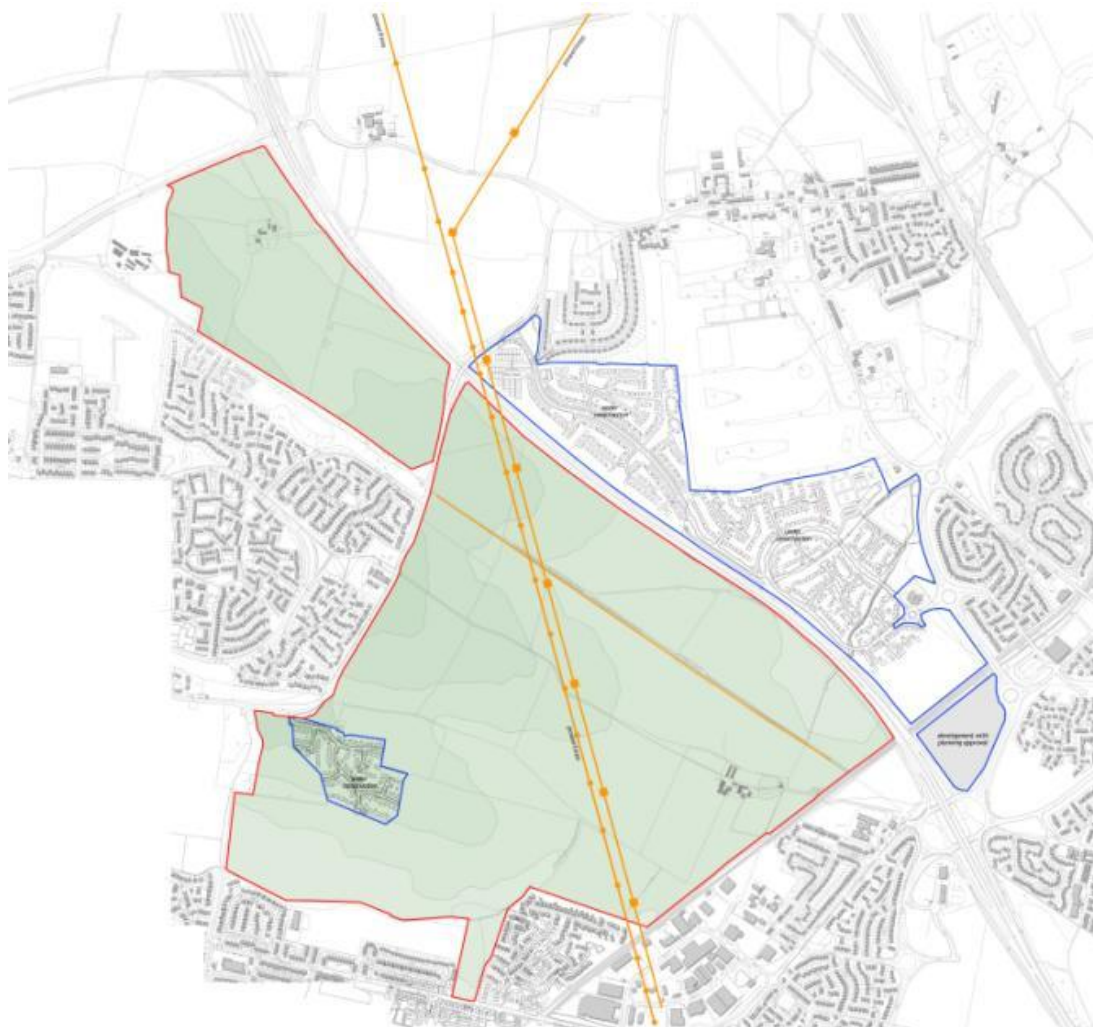
- Fully consider any potential risks to development of the site due to past mining and the Palmersville Containment Cell.
- Building over the top of, or in close proximity to, mine entries should be avoided wherever possible, even after they have been capped, in line with adopted policy of the Coal Authority. Detailed planning applications must be supported by a Coal Mining Risk Assessment informed by intrusive site investigations as required by the Coal Authority.

**4.11 Services and Utilities**

Pylons and power lines cross the site in a north to south direction. Electricity, gas, telephone, broadband and water supplies are all available within close proximity of the site.

## Masterplan Considerations:

- Accommodate the electricity lines into the Masterplan within green corridors and consider visual mitigation with appropriate landscaping.

*Location of Powerlines***4.12 Trees and Hedgerows**

An arboricultural tree survey has been carried out for the majority of the site with the exception of an area approximately 10.5 hectares to the south east (due to access restrictions at time of survey). Fields across the site are divided with a combination of tree groups, hedgerows and fencing. There is a wide range of trees across the site which range from young to mature and from healthy to dead. A wide range of species is represented across the site.

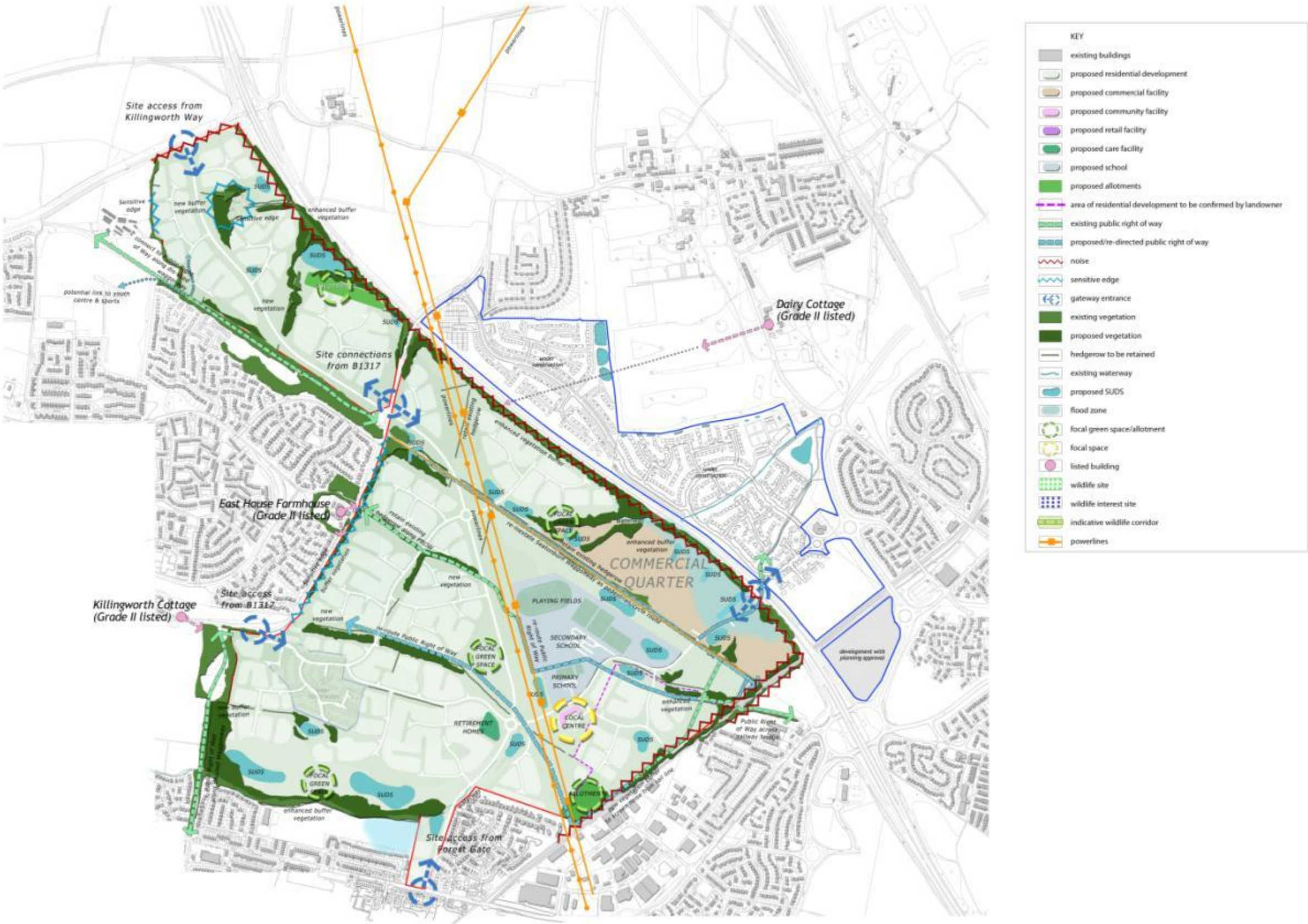
*Tree and Hedgerow Plan*

4.13 Site Constraints and Opportunities

Site Considerations	Site Opportunities
<ul style="list-style-type: none"><li>• Pylons and power lines cross the middle of the site in a north south direction</li><li>• Noise from A19, Metro line and potential new Metro station</li><li>• Listed buildings adjoining the site and heritage assets on the site</li><li>• Existing wagonways</li><li>• Limited vehicular access connections to Shiremoor under the A19</li><li>• Wildlife corridors and ecology</li><li>• Protection of trees, hedgerows, copses and field boundaries</li><li>• Flood zones 2 and 3 to southern part of site</li></ul>	<ul style="list-style-type: none"><li>• Creation of a new sustainable community, served by a new community hub</li><li>• Provision of primary and secondary education facilities</li><li>• Creation of a new employment quarter</li><li>• New highway routes, linking into the existing network</li><li>• New pedestrian and cycle routes, connecting to key destinations, public transport and the existing network</li><li>• Improvement to public transport network including potential new Metro station at Holystone</li><li>• Enhancement of existing hedgerows and trees</li><li>• Creation of new habitats, public open space and green infrastructure</li><li>• Enhanced linkages to cross the A19</li><li>• Enhance the setting of existing heritage assets</li></ul>



Site constraints and Opportunity Plan



## 5. DESIGN PRINCIPLES

### 5.1 Place Making Framework

The Masterplan provides the opportunity to create high quality new places. To maximise the potential of place making, the Masterplan is informed by the following principles:

#### *Character Areas and Housing Density*

A range of character areas will be developed in coordination with a range of housing densities that will contribute towards creating a sense of place and facilitate navigation. Each character area should be reflective of its general setting and role within the site as a whole and provide a coherent liveable neighbourhood for residents.

Densities will generally increase towards the Community Hub and areas well served by public transport. Lower density development will generally feature to the in areas overlooking open space to create an appropriate transition.

#### *Entrance Features and Streets*

Gateways into and out of the site and each character area will be designed to support legibility and provide a sense of identity for the site as a whole and local neighbourhoods. Important roads will be identified which will be designed as 'feature streets' in the site. These areas will be high quality public spaces that will enhance legibility and sense of character as people move through the development.

#### *Active Frontages*

Development is expected to front onto all the major routes through the Masterplan to create attractive 'streetscapes' to enhance the sense of place and increase the sense of security. Housing will be set back from the link road with landscaped verges and separate pedestrian and cycle paths. Houses should also provide active frontages where adjacent to strategic breaks and open space.

#### *Green and Blue Infrastructure*

The existing environment will be drawn upon to strengthen the sense of place and create a distinct identity for the places created. The retention of existing good quality hedges and trees, will be supplemented by new planting of a range of plants and species agreed with the Council and effective landscaping to create the basis for attractive, multi-function spaces for amenity, biodiversity, leisure and community meeting places.

Public open space will be regularly spaced throughout the development and accessible to all residents. These areas will be designed to be active green spaces which are functional for a variety of uses allowing them to benefit wildlife and be attractive for the community to utilise.

Key viewpoints 'in and out' of the site will be safeguarded with landscaped green areas to enhance the setting of Killingworth Moor.

#### *Heritage*

Heritage assets contribute to the character and uniqueness of place. Existing heritage will a key connection to the development of the site, not only to reinforce place making but also to preserve the long-term future of heritage assets. Appropriately designed setting around identified heritage assets such as the Seatonburn Wagonway and High Farm. This will help to protect their setting within the new development. Views along the Seatonburn Wagonway will be preserved and enhanced



Place Making Plan





## 5.2 Movement Framework

The movement network throughout the site provides the opportunity to deliver a network of safe and attractive links within and through the new development and adjacent areas. The key principles to deliver this are set out below:

### *Walking and Cycling Accessibility*

The Masterplan will maintain and enhance existing pedestrian movement routes and preferences across the site by incorporating them into attractive connections through the developments enhancing their sustainability. Pedestrian and cycle routes will be incorporated into a comprehensive landscape and drainage framework, ensuring that the neighbourhoods are interconnected.

The internal layout of streets throughout the development must enable permeability for pedestrian and cycle movements. All areas of the site must have direct cycling and walking routes to the proposed school and community hub, without the need to divert round the perimeter of the site. Cycling and walking routes should be high quality and designed in line with the North Tyneside Cycling Design Guide (to be adopted in 2018). Key junctions and access points into the site should be designed with pedestrian and cyclists in mind. The detailed layout is required to provide direct, well lit and safe links to the existing pedestrian and cycling network including priority crossings at internal junctions where appropriate.

### *Bridleways*

The Masterplan will promote a network provided for equestrian users via the Public Rights of Way. This will be encouraged and promoted to give a comprehensive route network. Route continuity is essential together with clear signing. The introduction of Signalised Equestrian crossings (Pegasus Crossings) will be installed if necessary.

### *Street Hierarchy*

The strategic link road connecting the A1056 and the B1505 (via the B1317) will provide a transport corridor and connectivity through the site. Through the development's strategic routes a 30mph speed limit will be applied. From the strategic link road a secondary highway will enable public transport permeability particularly through the addition of a new underpass from the site under the A19 to connect with the A186 at Backworth. Following this a network of legible streets will provide access throughout the development. The hierarchy of secondary and residential streets will be designed to slow down cars and help reinforce the concept that pedestrians and cyclists have priority.

### *Sustainable Transport*

Excellent public transport links that are easily accessible throughout the site will be required to ensure a suitable attractive service is available for new residents. The option of a new Metro station will also be accommodated in the Masterplan should it be required. Direct and convenient pedestrian and cycle links to the existing Metro stations will promote and encourage the use of the Metro system. Further, the Masterplan will ensure attractive links to existing transport hubs by providing convenient and direct connections to the existing network of cycle and pedestrian paths. New bus services will run through the site along key routes providing sustainable access to key destinations.

### *Routes to Schools*

Routes to schools will be considered as part of the movement network including existing and new routes to schools and associated crossing facilities. This will help to inform wider pedestrian routes within the development to create a cohesive pedestrian and cycle network throughout the site.



### 5.3 Green Infrastructure Framework

Appropriate introduction of Green Infrastructure will be essential to the creation of a high quality development with a distinctive character where residents can enjoy a healthy and active lifestyle. Development should incorporate the following key principles set out below:

#### *Multi-functional Spaces*

Green infrastructure will be defined and recognised as multifunctional spaces. They will provide opportunities for play, exercise and education, community meeting places as well as areas for wildlife and biodiversity appropriate to the character and requirements of the location. SUDs will also be well integrated with and enable provision of areas of green infrastructure.

#### *Accessible Open Spaces*

Landscaped areas of open space to fulfil varying roles reflecting the open space needs assessment will be spaced throughout the development. This will be readily accessible for all new residents and attractive for the new community to utilise whilst providing a valuable resource for existing residents adjacent to the site. Green infrastructure will be linked to and be an integral part of a wider cycle and pedestrian network. To reflect this the Movement Framework and the Green Infrastructure Framework should be clearly combined and developed to facilitate and encourage people to walk and cycle for local trips.

#### *Wildlife Corridors*

Green spaces will be linked together to create a network that links with the wider external wildlife corridor network. Within the proposed developable areas existing good quality hedgerows and mature trees will be retained to enable green infrastructure and wildlife links to be created. The network of green spaces will provide site wide ecological enhancement and habitat creation through new planting and the potential to create rich areas for wildlife through the network of ponds required to provide sustainable drainage for the site.

#### *Visual Impact*

The landscape approach to be adopted throughout the site will seek to minimise the visual impact of development from key view-points into the development and for existing residents in adjacent communities. A southern strategic buffer and a lesser buffer adjacent to the B1317 Killingworth Lane will reduce the visual impact of development from existing residents. New development forming boundaries to the strategic break should provide a soft edge with appropriate residential frontages and planting.

#### *Key Views*

The green infrastructure framework will respond to identified key views across the surrounding landscape and be used to create new visual connections at points of interest. At the detailed design stage building elevations, planting and landscape creation will be drawn upon to create vistas through the new development.



**Green Infrastructure Plan**





## 6. INFRASTRUCTURE REQUIREMENTS

To realise the vision and development objectives for Killingworth Moor as a high quality, sustainable development, a range of physical and social infrastructure is required to support the community created and integrate it with existing communities of North Tyneside. This necessary infrastructure must be delivered in a timely and effective manner in order to mitigate the impacts of the development and to create sustainable neighbourhoods. Some financial contributions will be required for off-site improvements to existing infrastructure. The key infrastructure requirements are set out below.

### 6.1 Education

Schools are a crucial element of the local infrastructure and therefore Killingworth Moor must plan for education provision needs arising from new homes.

#### *Primary School*

A new primary school is required at Killingworth Moor. The school will be a local facility, within walking distance of key family housing areas and located in the central area of the site. Approximately 2 hectares of land will be made available to deliver the primary school.

#### *Secondary School*

A new secondary school is required to serve both the Killingworth site and growth generally throughout the Borough. This is to be located within the Killingworth Moor site, requiring approximately 8.6ha of land, and catering for around 1100 pupils.

### 6.2 Healthcare

The expected increase in population across Killingworth Moor by 2032 will place increased demand on existing general practice services. Based on maintaining the current model of delivering GP services, the Clinical Commissioning Group (CCG) advises that a contribution of approximately 385m<sup>2</sup> of additional floor space will be required due to the increase in patients arising from the development. At this time the CCG are continuing to review the model for health care provision in North Tyneside. However, a small branch surgery to a wider practice might be required or the relocation of an existing practice (potentially in currently ageing or inappropriate accommodation) to a new facility at Killingworth Moor. It would additionally be expected that if such new accommodation were created the inclusion of services such as physiotherapy and speech therapy could be considered. This Masterplan should consequently enable the delivery of such a facility as part of any new local centre.

### 6.3 Highways and Transport

#### *Primary Highways*

Requirement for primary road infrastructure including a strategic north-south highway link and access junctions at Killingworth Way A1056 to the north and Great Lime Road B1505 to the south. The north-south route is essential to secure adequate highway access to the site and will additionally alleviate the potential impact of development at this site upon Killingworth

Village and the impact of growth upon the junction of the B1317 Killingworth Lane and B1505 Great Lime Road.

#### *Secondary Highways*

- An underpass, connecting the Killingworth Moor site with the A186 for taking site traffic and potential secondary education trips away from the primary Holystone A19 / A191 roundabout junction.
- A further, secondary access point will exist where the primary north-south route intersects with the B1317, providing a further alternative route across the A19.

#### *Off-site Works*

A range of off-site works are required through section 278 agreements with the Council as Highway Authority, or through section 106 contributions. These include the following improvements at the following roads and junctions:

- Killingworth Way Roundabout
- A19 Killingworth Interchange
- Killingworth Lane Junction
- Forest Gate Junction
- Wheatsheaf Roundabout
- Great Lime Rd / Killingworth Village

Further work looking at more detailed traffic modelling will be required for the detailed development and applications for the site. In relation to the Killingworth Interchange junction, it needs further consideration in terms of assessment, design suitability and safety. It is recommended that this includes, but is not limited to:

- Microsimulation assessment of the whole system, on the basis of agreed demand flows.
- Seeking the views of Highway England .
- Undertaking and initial design review and preparation of a Stage 1 Road Safety Audit.

#### *Public Transport Provision*

Provision will be made for bus access throughout the primary and secondary highway network., subject to further feasibility work. The precise costs of delivery of the Metro station are subject to further work, however the location of this is shown on the Masterplan to the south-eastern boundary of the site adjacent to Holystone village and the Benton Square industrial estate. This would enable access to the existing employment and residential areas. If a Metro were not included as part of development proposals at Killingworth Moor, an equivalent level of public transport provision would be required through an enhanced bus service.

#### *Cycleways, Bridleway and Pedestrian Routes*

High quality walking and cycling routes are required in accordance with the emerging Cycling Design Guide and LDD12 Transport and Highways SPD to provide appropriate connectivity for Killingworth Moor. The below table and map identifies potential routes and desirable connections that are indicative at this stage and their alignments may be altered as the detailed design develops. Further detailed mapping of links will be required providing a full overlay of key routes against the proposed Masterplan layout as part of any future planning applications.

The following improvements to site are identified to create or enhance internal links within the site:

K1	Principle pedestrian and cycle route – north / south main pedestrian and cycle route from Killingworth Way through to Great Lime Road.
K2	Secondary pedestrian and cycle route linking the western development areas to Backworth via the A19 underpass and connecting into the potential Metro station.
K3	Southern extension of existing bridleway stretch from Killingworth Way along the waggonway and southern link with existing bridleway to access bridge crossing. Diversion of National Cycle Network Route 10 (Reivers Route) along existing waggonway through the site to A19 underpass.
K4	Upgrade and diversion of existing bridleway (re-routed via waggonway to avoid school and local centre) to retain link from Killingworth Centre to the footbridge and Holystone Roundabout.
K6	. Provision of segregated footpath cycleway to access schools, local centre and Metro.
K7	Upgrade footpath linking Killingworth Lane to the local centre
K11	Perimeter footpaths
K3	Seatonburn Wagonway

The following improvements to the external network are identified to link the internal routes to key strategic destinations within North Tyneside.

EX10	Part essential and part desirable - Existing footpath improvements with signage to provide a link between the proposed new Metro station at the Killingworth Moor site with Industrial Estate and Holystone Village. The proposals connect with existing infrastructure in Holystone Village providing a link to the A191 corridor cycle route, new housing development at Scaffold Hill and Rising Sun Country Park with a link to a potential new pedestrian and cycle crossing of the A19 to Cobalt Business Park.
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EX12	Essential - Existing footpath improvements to provide signage for improved north – south link for pedestrians and cyclists between Killingworth Village and Great Lime Road to the west of the Killingworth Moor site.
EX14	Essential - Existing bridleway improvements to the NCN Route 10 which runs along the north west boundary of the Killingworth Moor site to improve access from the north of the site to the A1056 and the Killingworth centre.
EX15	Essential - Proposed traffic free path adjacent to A1056 Killingworth Way to provide link to the northern boundary of Killingworth Moor between the principal pedestrian and cycle route access junction and NCN Route 10 / green corridor to Killingworth Centre.
EX16	Part essential and part desirable - Proposed traffic free path adjacent to B1317 Killingworth Lane to provide link for pedestrians and cyclists from Killingworth over the A19 to Backworth Village connecting with existing infrastructure to Seghill and Northumberland to the north.



***Pedestrian and Cycle Improvements***





## 6.4 Local Centre

A local centre is required to support the development and provide the day to day facilities to support the new communities. The local centre will provide a range of shops (e.g. convenience store) as well as opportunities for other neighbourhood and community facilities. The Retail Requirements Assessment provides an outline of the scale of retail provision that may be appropriate indicating the site could support provision of approximately 500 sqm of convenience retail by 2032. The location of the local centre that would primarily serve day to day needs for residents on the new development and should be located in an accessible location.

## 6.5 Surface Water Management

A drainage strategy is required for the whole site based on the Killingworth Moor Broad Area Flood Risk Assessment. SUDS should be incorporated into the development layout for surface water management. Whilst Killingworth Moor discharges into the Forest Hall Letch, part of the Ouseburn catchment, it will be important to ensure drainage infrastructure installed does not increase the volume of non-foul water that enters the sewerage network and finds its way to Howdon Waste Water Treatment Works.

## 6.6 Open Space

An overarching strategy for open space provision should incorporate the following minimum requirements at Killingworth Moor:

- Equipped areas for play – Requirement for Strategic Equipped Area for Play (between 1,000sqm to 1,600sqm) within the -central part of the site. A smaller Local Equipped Area for Play (of 600sqm to 800sqm minimum) required to the north west of the site.
- Parks – Additional park provision is required. Due to the shape of the site more than one park should be considered. Parks need not be significant in scale but should be well designed and fit for purpose.
- Natural and Semi-Natural Green Spaces – Provision of this type of space could be delivered within multifunctional areas, expand the biodiversity value on the site and link into existing wildlife corridors
- General Green Space – Provision can be delivered within multifunctional areas.
- Allotments - Requirement for the delivery of one allotment per 27 households. For 2,000 homes this would be 75 allotments.

Depending on the level and nature of green infrastructure provision on the site, there may be a requirement for off-site improvements to existing areas of open space

## 6.7 Sport Facilities

- Contribution required towards existing sports facilities to improve and maintain existing facilities to help deal with the increased demand arising from the development.
- Playing pitches should be provided in schools to support the new development. The school site should be planned to address the following points
  - The site is subject to a community use agreement.
  - The site is laid out so that community use is achievable.

- The playing pitches are constructed to a specification that means they have the capacity to accommodate the additional community use.

## 6.7 Affordable Housing

The Masterplan is required to deliver 25% affordable housing as required by policy DM4.7 in the Local Plan. The affordable housing will be delivered on site and will provide a mix of both affordable rented and intermediate housing.

## 6.8 Community Facilities

A contribution is required towards existing library, customer first centre and community facilities. This will help to improve and maintaining existing facilities to help deal with the increased demand arising from the development.

## 6.9 Employment and Training

67 apprenticeships are required to be delivered as part of the site construction to deliver employability interventions targeted on North Tyneside residents. A contribution may be appropriate if some apprenticeships are unable to be provided as part of the scheme.

## 6.10 Public Realm

The delivery of the scheme should deliver improvements towards the public realm, such as public art which can enhance the aesthetic environment and reflect the character of the location. The delivery of the scheme is also expected to support Killingworth town centre. Other contributions may be applicable and will be secured subject to detailed viability and negotiation, at planning application stage.



## 7. MASTERPLAN

### 7.1 Masterplan Layout





7.2 Indicative Density Plan



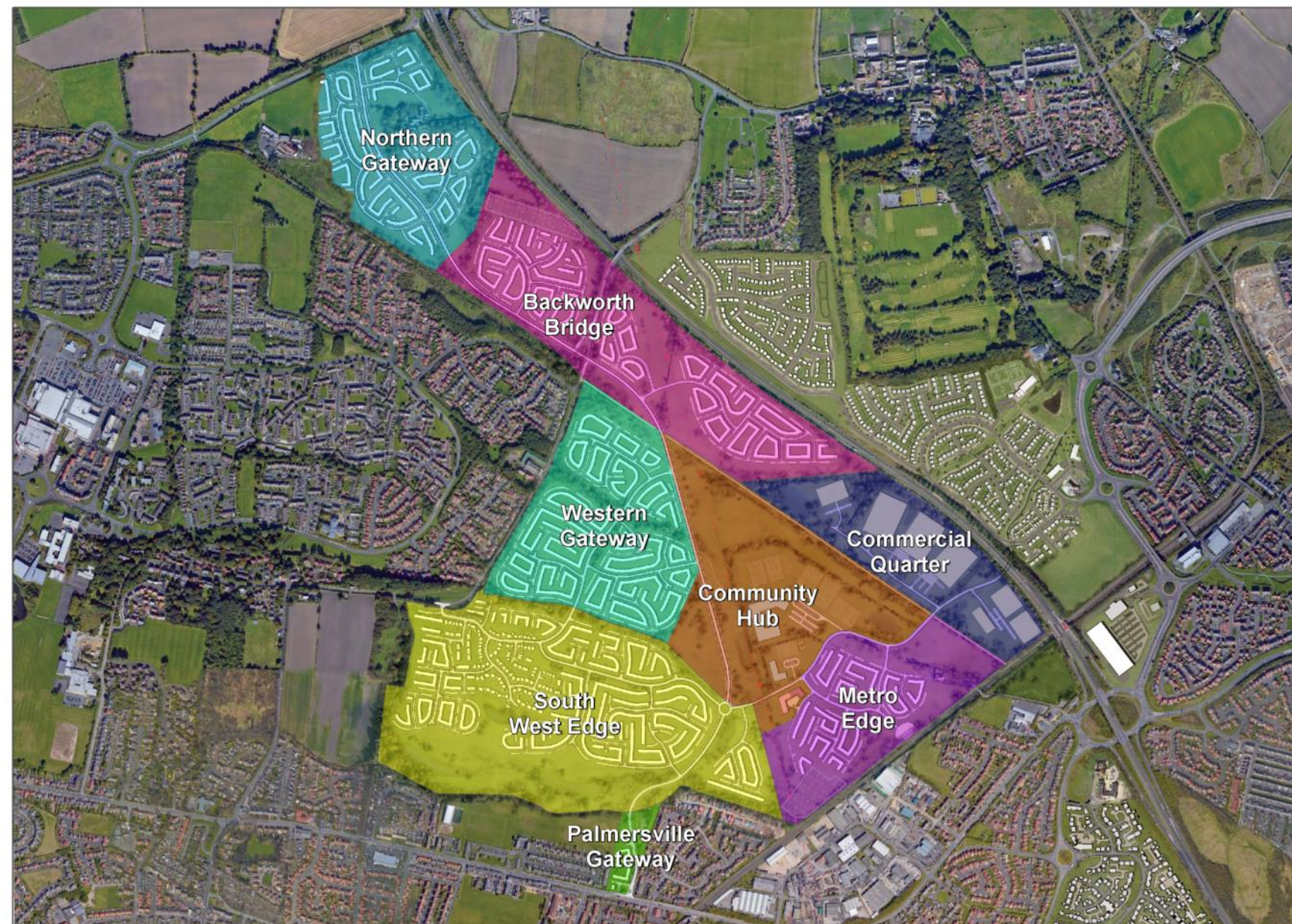


## 8. DESIGN CODE

The information in this section will provide applicants with a set of design principles to be used at Killingworth Moor. The design code provides guidance about how to plan buildings, streets and spaces to ensure the site develops with a coherent structure. This is intended to create attractive and healthy places and make the process of achieving good design more straight forward.

### 8.1 Character Areas Overview

The Masterplan includes a number of different character areas, each defined by a specific approach to urban design and landscaping. The character areas will be recognisable zones with individual identities. They will reflect the built characteristics within the surrounding developments around Killingworth Moor. This will help integrate the new development into the existing community and enhance the existing identity of the area.



#### 8.1.2 Character Area 1: South West Edge

This character area will provide a high quality development graduating from medium density at its heart (reflecting that of Stephenson Park) to a lower density edge to frame the open break between the existing settlement of Palmersville and the Killingworth Moor. Properties will



largely be detached and provide a suitable transition to the open space and wetland areas. The character area is of particular importance in integrating Stephenson Park (currently being built by Bellway Homes) within the wider scheme.



Character	Suburban informal character which fully integrates with Stephenson Park and takes advantage of open views to the south of the site. The architectural approach should have regard to the existing style of Stephenson Park whilst also allowing for some differentiation in style within the character area
Character Reference	Stephenson Park, Wagonway, Palmersville open break.
Landscape Setting	<ul style="list-style-type: none"><li>• The open break to the south of the character area will include amenity green space, SUDs, wetland areas and areas for ecological mitigation.</li><li>• Houses will front onto the primary estate road, similar to the existing Stephenson Park development</li><li>• Pockets of open space and small 'greens' along the route will be framed by housing clusters set back from the road.</li></ul>
Housing Mix	A mix of predominantly detached and some semi-detached houses, with large detached plots especially to the edges. Along the link road semi-detached and short terraces may be appropriate.
Density / Height	Medium-low density development. Development generally 2 storeys in height with some opportunities for 2.5 storeys to assist in legibility of routes.
Key Design Principles	<ul style="list-style-type: none"><li>• Properties will be outward looking over the open break. Street layout and design will maximise the views of the open break.</li><li>• Architectural design and layout should integrate well with Stephenson Park.</li><li>• Moorfield Drive will not be accessible for through-traffic from Phase 2 onwards.</li></ul>



8.1.3 Character Area 2: Palmersville Gateway

This character area relates to a smaller section of development located adjacent to the southern access point from Great Lime Road. It is a key gateway into the site and also provides access into the Forest Gate development. The character area is located in close proximity of Palmersville Metro Station.



Character	Distinctive gateway into the site that complements development at Forest Gate while also providing a distinctive new area with its own identity.
Character Reference	Surrounding residential development including Forest Gate.
Landscape Setting	<ul style="list-style-type: none"><li>Along the link road, development will be set back behind green verges, native trees and hedgerows.</li><li>Protection of existing habitat features including SUDs ponds.</li><li>Hedge planting should form front boundary treatments for units along Great Lime Road to afford privacy to residential units.</li></ul>
Housing Mix	Town houses and apartments
Density / Height	High density development. Development up to 3 storeys in height.
Key Design Principles	<ul style="list-style-type: none"><li>The arrangement and form of dwellings in this location should provide a distinctive entry point.</li><li>Dwellings in this location will be orientated an outward aspect with terraced and apartment forms positioned close to Great Lime Road.</li></ul>



8.1.4 Character Area 3: Community Hub

The community hub is considered to be the key area within the development and of real importance to the success of the wider scheme by creating a clear and identifiable centre. The community hub will be a focus of local community activity and social infrastructure for Killingworth Moor. The central area of open space will form a community park with views to the north and south of the site. The area will link up to all pedestrian routes and be easily accessible for the whole site.



Character	A natural focal area for the site which includes retail, health and education facility complemented by residential development.
Character Reference	Long distances views through the site and links with Backworth Park and potential new Metro Station.
Landscape Setting	<ul style="list-style-type: none"><li>• High quality hard and soft landscaping creating an identifiable and pedestrian friendly public centre. Some areas will be specifically designed for wildlife and biodiversity.</li><li>• Along the link road, development will be set back behind green verges, native trees and hedgerows.</li><li>• Reinforce and enhance the green buffer around Seaton Burn Wagonway.</li></ul>
Development Mix	The area will include: <ul style="list-style-type: none"><li>• A primary and secondary school</li><li>• Convenience retail provision</li><li>• Health facility</li><li>• Equipped children’s play area</li></ul>
Density / Height	Education buildings up to 2 storeys. Retail and health buildings up to 3 storeys. Residential development surrounding the community hub up to 3 storeys.
Key Design Principles	<ul style="list-style-type: none"><li>• Residential development around this area should be a tighter grained development with house types used to successfully frame the space.</li><li>• Retail, health and education buildings should be designed to complement residential accommodation.</li><li>• The retail building is located in this area which should be a focal building in terms of its design and layout – See section 8.3.2 for further detailed guidance.</li><li>• Design should consider appropriate easements for the pylons.</li><li>• An attractive green link will be created north-south that connects to the central Seaton Burn Wagonway wildlife corridor.</li></ul>



8.1.5 Character Area 4: Metro Edge

Character area 4 is located in close proximity to the existing Metro line and the potential new Metro Station. This area will be an arrival point for people using the potential new Metro Station. As such it should create a welcoming and distinctive gateway into the site. To the east of this character area is the existing Holystone Cottage and the historic Holy Stone cross socket. Although the cross has been removed the socket is important and has created the name and identity of the local area. This character area includes an area of open space to the east which creates an opportunity to celebrate this asset.



Character	Traditional character area based around strong street frontages with clear and direct routes to the potential new Metro Station and open spaces.
Character Reference	Metro Station, The Holy Stone
Landscape Setting	<ul style="list-style-type: none"><li>Retain, protect and enhance existing landscaping and field boundaries and link these to the key open spaces within the development.</li><li>Appropriate buffer planting comprising of native species to mitigate for noise from the Metro and create opportunities for wildlife corridors.</li></ul>
Housing Mix	Detached, semi-detached, short terraces and apartments.
Density / Height	The density of this area will be influenced by the delivery of the metro station. If this is deliverable then the character area would be suitable for high density development. If the metro is not delivered then medium density development would be more appropriate.
Key Design Principles	<ul style="list-style-type: none"><li>Development to assist in providing direct and safe routes to the Metro Station.</li><li>The area has a key frontage to the secondary road which should be reinforced with active outward facing development.</li><li>Create an appropriate area of open space to celebrate The Holy Stone while also providing an area for amenity green space and SUDS.</li><li>A loop road within this parcel should allow a bus service to access the potential metro station.</li><li>If housing comes forward in this character area in advance of the Metro Station, land must be safeguarded for the future delivery of this.</li></ul>



8.1.6 Character Area 5: Commercial Quarter

This character area comprises of employment buildings located to the east corner of Killingworth Moor. This area is important in portraying the design aspirations of the wider scheme with a key link from Backworth Park framed by commercial development. Development in this location will provide for a range of commercial uses with development designed to accommodate a variety and scale of potential end users.

The location and positioning of commercial units is well considered with good access to the A19 and will be located near the potential new Metro Station. The commercial units will also screen road noise from the A19 for residential areas beyond.

The Masterplan layout shows a reduced area of employment land than identified in the Local Plan. The extent of employment land identified and design approach achieves a suitably balanced scheme which meets housing delivery alongside open space. Planning applications relating to this area will be considered with regard to this Masterplan and Policy S.4 (b).



Character	High quality commercial quarter suitable for smaller scale office and light industrial use, complimentary to new residential neighbourhoods.
Character Reference	High quality design with design cues taken from Cobalt Business Park and Balliol Business Park.
Landscape Setting	<ul style="list-style-type: none"><li>• Use the existing hedgerows to define the area.</li><li>• Reinforce and enhance the green buffer around Seaton Burn Wagonway with native trees, scrub, hedgerow and wildflower grassland habitat.</li><li>• Development line off-set from existing watercourses and hedgerows.</li></ul>
Employment Mix	B1 Business uses including offices, research and development of products and processes and light industry appropriate in a residential area.
Height and layout	Maximum of 3 storeys in height. The layout and arrangement of this area will be partly subject to occupier demand. The final layout of this area could be a small number of large units, or a larger number of small units.
Key Design Principles	<ul style="list-style-type: none"><li>• Provide a positive development edge to the wildlife corridor along Seaton Burn Wagonway.</li><li>• Provide an attractive frontage over the secondary road.</li><li>• Provide direct, safe and convenient pedestrian routes to the Metro Station.</li></ul>



8.1.7 Character Area 6: Western Gateway

This character area will have a prominent public frontage along the B1317 and provides a western gateway into the site. A linear area of open space is retained in this character area which follows the line of a key pedestrian route through the site. This route provides views towards the community hub.



Character	Suburban low density character with a contemporary design response to the local vernacular and references made to traditional forms of development. The character area should provide an appropriate transition to the community hub.
Character Reference	Agricultural cues taken from East House Farm.
Landscape Setting	<ul style="list-style-type: none"><li>Retain, protect and enhance the existing hedgerows to define the area.</li><li>Reinforce and enhance the green buffer around Seaton Burn Wagonway with native trees, scrub, hedgerow and wildflower grassland habitat.</li><li>Broad finger of green space in the middle of the character area which follows the pedestrian area should be retained, protected and enhanced.</li><li>Along the link road, development will be set back behind green verges and tree planting.</li></ul>
Housing Mix	Detached houses with some semi detached units at key view points. Along the link road semi detached and short terraces may be appropriate. Bungalows should also be considered in this area.
Density / Height	Low at development boundaries; medium overlooking key routes. Development generally 2 storeys. Development up to 3 storeys in height along the link road.
Key Design Principles	<ul style="list-style-type: none"><li>An attractive 50 metre landscape buffer will run along each side of the Seaton Burn Wagonway.</li><li>The arrangement and form of dwellings in this location should contribute towards creating a welcoming entrance gateway to the scheme from the B1317.</li><li>Properties will be outward looking over the B1317.</li><li>The character area will need to respond sensitively to the context of East House Farm and the existing landscaping that forms part of its context.</li><li>Buffer along the B1317 of approximately 50 metres. Development should consider the scale and mass in relation to existing properties.</li></ul>



8.1.8 Character Area 7: Northern Gateway

Character area 7 has the opportunity to provide a distinctive and welcoming entrance to the site. Development should have a front aspect over Killingworth Way. A landscape buffer along Killingworth Way and the A19 will ensure that issues of noise from the road can be adequately mitigated. This section of development will take reference points from the farm buildings and provide a more low-density design response. The character area borders the Seaton Burn Waggonway and the associated green buffer around it.



Character	Suburban low density character with a contemporary design response to character references.
Character Reference	High Farm, Seaton Burn Wagonway
Landscape Setting	<ul style="list-style-type: none"><li>• Retain, protect and enhance the existing hedgerows and planting to define the area and enhance landscaping around High Farm.</li><li>• Reinforce and enhance the green buffer around Seaton Burn Wagonway with native trees, scrub, hedgerow and wildflower grassland habitat.</li><li>• Enhance the buffer along the eastern boundary with native species to provide screening to the A19</li><li>• Along the link road, development will be set back behind green verges and tree planting.</li></ul>
Housing Mix	Detached houses with some semi detached units at key view points. Along the link road semi detached and short terraces may be appropriate.
Density / Height	Low density development boundaries; medium overlooking the link road. Development generally 2 storeys. Development up to 3 storeys in height along the link road.
Key Design Principles	<ul style="list-style-type: none"><li>• The use of distinctive buildings alongside pedestrian space should define the entrance.</li><li>• An attractive approximate 50 metre landscape buffer of will run along the Seaton Burn Wagonway.</li><li>• Landscape buffer required to mitigate noise from the A19.</li><li>• Development should form a positive development edge to Killingworth Way.</li><li>• Development should respond appropriately to High Farm in order to contribution to local character and distinctiveness.</li></ul>



8.1.9 Character Area 8: Backworth Bridge

This area of residential development is bordered to north east by the A19. The character area includes an entry point into the site from the east which connects to Backworth. An equipped children’s play area and allotments also feature in this character area.



Character	Suburban medium density character with a contemporary design response that provides a transition in character between character areas.
Character Reference	Green edges and green wedges through this character area to be reference points to create a landscaped focused character area.
Landscape Setting	<ul style="list-style-type: none"><li>• Retain, protect and enhance the existing hedgerows and planting to define the area</li><li>• Enhance the buffer along the eastern boundary with native species to provide screening to the A19</li><li>• Along the link road development will be set back behind green verges, tree planting and hedgerows</li><li>• Wildlife corridor along the Seaton Burn Wagonway to be protected and enhanced with native woodland, scrub, hedgerow and grassland.</li><li>• Along the link road, development will be set back behind green verges and tree planting.</li></ul>
Housing Mix	Detached houses and semi detached units at key view points. Along the link road semi detached and short terraces may be appropriate.
Density / Height	Low density at development boundaries; medium overlooking the link road. Development generally 2 storeys. Development up to 3 storeys in height along the link road.
Key Design Principles	<ul style="list-style-type: none"><li>• Key features in this character area include an equipped children’s play area and allotments.</li><li>• Landscape buffer required to mitigate noise from the A19.</li><li>• An attractive approximate 50 metre landscape buffer will run along each side of the Seaton Burn Wagonway.</li><li>• Provide a positive development edge to the wildlife corridor along Seaton Burn Wagonway.</li><li>• The arrangement and form of dwellings in this location needs to provide a distinctive entry point from the B1317.</li></ul>



## 8.2 Street Design and Hierarchy

Streets make up a large part of the public realm and the treatment and the quality of streets can contribute significantly to the built environment. The design and street hierarchy should reflect the importance of each road type in the site. The types of streets are set out on the plan below and are described further in the following text.





### 8.2.1 Primary Feature Street

The primary feature street is the Link Road running north-south through Killingworth Moor. The road will need to perform as a strategic link road but must also provide a safe and attractive highway environment. The road will be designed to include cycle lanes on both sides and bus stops, key pedestrian crossing points for community connections, and side access roads.

#### Design Principles:

- The route requires residential frontages and should clearly provide a visual connection with the new communities it will pass through. The corridor should incorporate appropriate separation of sensitive frontages from the highway by green spaces and landscape, in itself adding a distinct character and value to those properties.
- The highway should be designed to be a 30 mph corridor with a limited number of 6 junctions off it to facilitate smooth movement.
- Along the link road, development should be set back behind green verges, native trees and hedgerows.
- A 3 metre shared pedestrian and cycle path to both sides of the road.
- The design of the corridor should aim to minimise statutory impacts from noise and air pollution but as appropriate building designs should address and mitigate potential impacts for inhabitants.
- Distinctive corner units should be incorporated to ensure continued architectural interest and passive surveillance.
- No in curtilage parking accessed directly off the road will be permitted.
- Boundary treatments and street furniture should be consistent along the entirety of the route.
- Designed to accommodate buses with frequent sheltered bus stops.
- Building heights should mostly be 2 to 2.5 storeys with opportunities for feature 3 storey buildings.
- The road should be punctuated by squares, and feature points to create an attractive and recognisable street.
- The road should generally have a straight but informal alignment.
- Carriageway material will be rolled asphalt but should be broken up at key junctions and feature points with other suitable materials. Footways will be dense bitumen.

### 8.2.2 Secondary Feature Street

The secondary feature street, as identified in the Masterplan, provides a site wide function to provide access eastwards from the Link Road (Primary Feature Street) and also to provide access to the Primary and Secondary School. The road provides a link to the A19 underpass providing access to east of the A19. The road will be designed to include a cycle lanes, bus stops, key pedestrian crossing points for strong community connections, and side access roads. The road must enable access provision, at an agreed point, into the Metro Edge Character Area

Typical cross section of Secondary Feature Street: Cross sections to be updated to reflect new cycle design guidance.

#### Design Principles:

- Drop off and pick up points outside of the school.
- Limited curtilage parking accessed directly off the road.
- 30 mph corridor designed for smooth movement. Speed will be reduced to 20 mph within the school zone.
- Boundary treatments and street furniture should be consistent along its entirety.
- Designed to accommodate buses with frequent lay-by bus stops.
- The road should be punctuated by squares and feature points to create an attractive and recognisable street.
- Building heights should mostly be 2 to 2.5 storeys.
- Designated shared pedestrian and cycle way to one side of the road measuring 3 metres. Pedestrian path on adjacent side of road measuring 2 metres.
- Carriageway material will be rolled asphalt but should be broken up at key junctions and feature points with other suitable materials. Footways will be dense bitumen.

### 8.2.3 Residential Streets

The Masterplan includes a bus permeable residential street connection between the B1317 via the REME site and the new Link Road (Primary Feature Street) designed to an appropriate width to accommodate buses. The remaining residential streets within the Masterplan should be designed to be clearly read as of a lower level in the street hierarchy. They should be designed for low traffic speeds to create a more intimate, pedestrian friendly character.

#### Design Principles:

- Space will be created for highway tree planting. This can be located in private residential gardens, between visitor parking or integrated into the public realm.
- Separate pedestrian pavement and integrated car and cycle way.
- Car parking designed to support the street scene. Visitor car parking should be distributed in small clusters.
- Roads should be 5.5 metres with a 2 metre pavement on either side.
- Building heights will mostly be 2 storeys.
- Carriageway material will be rolled asphalt but should be broken up at key junctions and feature points with other suitable materials. Footways will be dense bitumen or concrete pavers.
- Visitor car parking will be enhanced in suitable adoptable material, such as block paving, to improve the street scene.

### 8.2.4 Green Lanes

These streets will be located at the edges of development parcels and next to green spaces where the intention is to minimise vehicular dominance.



**Design Principles:**

- Green lanes will include native hedgerows, tree and shrub planting (may be part of residential gardens) to create a rural appearance and give priority to pedestrians and cyclists and reduce permeability for motor vehicles.
- These should be between 8.8 - 7.3 metres where there are low traffic demands, consisting of a 4.8 metre shared surface carriageway with 2m service strip either side.
- All surfaces should be block paving.

**8.3 Significant Buildings**

Significant buildings will contribute towards a positive image for Killingworth Moor. These buildings should be designed to reflect innovative and high quality design. Significant buildings in the site are identified below:

**8.3.1 Primary and Secondary School**

The schools are located near the centre of Killingworth Moor to allow them to be integrated in the site and fully connected by safe movement routes. They are located within walking distance of the potential new Metro Station and on a planned bus route. The schools are co-located; the primary school should be nearest to the Community Hub and the secondary school nearest to the Commercial quarter.

The key principles are set out below for the design of the schools:

- Located on the secondary highway with direct and easy pedestrian and cycle access and associated public transport provision.
- The schools must reflect the social and civic character of its location and have a visible public frontage from the street. The school must provide a sense of place and should act as a reference point within the development.
- The layout of the school sites should minimise issues of noise to surrounding houses.
- Location of servicing should not impact on neighbouring properties or the highway.
- The schools should have good connections to the pedestrian network, to encourage safe walking routes.
- Boundaries should make the schools secure but respond to the surroundings.
- Scale and massing should positively contribute to the surrounding area. The buildings footprint should allow for future flexibility.
- The approaches to the school's and entrances should be welcoming and promote a sense of inclusion.
- Bus stops should be located close to the entrance to the school.
- Playing fields in the secondary school should be available for community uses.
- Drop off and pick up points should be located outside of the school.
- Pedestrian access points to be provided to the west of the school sites.

**8.3.2 Local Retail Hub**

The retail facility will provide convenience goods for the site and will be a key element of the Community Hub. The key principles are set out below for the design of this area:

- Appropriate uses include:

- Class A1 – shops and retail outlets
- Class A2 – professional services (on upper floors)
- Class A3 – food and drink
- Class D1 - Non-residential institutions such as Health Centre
- The area should be designed to be easily accessible by foot, public transport and car.
- Well located car and cycle parking. There is likely to be a reduced requirement for car parking due to the close proximity of the housing and the potential new Metro Station. Discussions with the Council's Highways Team should take place during the preparation of detailed plans to discuss further.
- The layout of the buildings should be in a formal structure and be sited to be easily visible.
- Units should provide flexible space that could be combined to provide larger units.
- Vehicular servicing, for deliveries and refuse collection should be located away from the public realm.

**8.3.3 Buildings at Entrance Points into the Site**

Buildings at the access points to the site have an important function through creating a welcoming entrance and also proving an indication of the design ideals for the wider site. The key gateways into Killingworth Moor are from:

- Palmersville gateway to the south
- Killingworth Way gateway to the north
- B1317 gateway to the west
- Backworth Park gateway to the east
- Potential new Metro Station gateway to the south

It is essential that in these areas the architecture, built form and landscaping responds to this by providing high quality design. This should be of an appropriate scale and massing to address the road frontage to ensure that a unique sense of arrival is achieved. The key design principles are set out for these areas below:


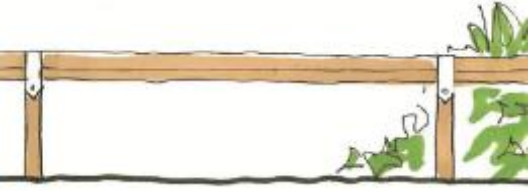

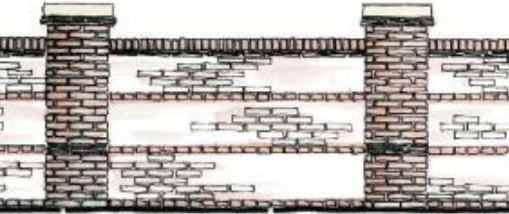
- Building heights can be up to 3 storeys (plus roof) to help create distinctive arrival points that create an early impression to visitors.
- The appearance of buildings should showcase interesting forms of architectural design.
- The public realm should use creative and innovative design with complimentary landscaping.
- Specifically designed corner turner units should be used to avoid street entrances being dominated by blank gables and high back garden fences and walls.
- Public art may be appropriate in these locations.

**8.4 Boundary Treatments**

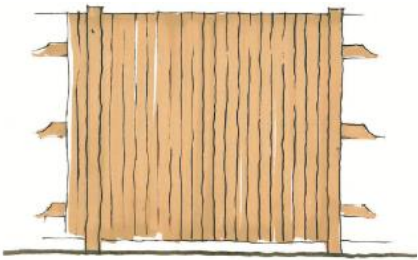
Various boundary treatments reflective of the character and density of each area should be applied consistently to provide a unifying element to the public realm across the whole site. This is particularly important where different developers are constructing houses on the same streets. Boundary treatments also offer the potential to help shape different character areas to reflect the setting.



In the identified areas below, the following boundary treatments are recommended. These are designed to create attractive boundaries while allowing good potential for surveillance of public spaces and routes.

Front gardens on main routes	Estate railings with informal and formal hedges behind	
Front gardens facing open space	Low timber fencing	
Front gardens in small residential streets	Soft verges with ornamental planting, hedges and trees	
Rear gardens abutting the public realm (these should be kept to a minimum)	Feature wall with optional timber infill panels	

Rear gardens not visible from the public realm	Timber fencing at 1 - 1.8 metres
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8.5 Edges and Buffer Areas

The edges of Killingworth Moor require sensitive treatment to ensure a positive relationship with existing development, mitigate noise issues and to facilitate wildlife movement. Existing neighbourhoods have strong established identities and communities. These must be protected, through sensitive planning, to prevent coalescence, whilst also offering connectivity between settlements and all of the advantages described in the objectives of the Masterplan. To respond to these issues, green buffers and planting will feature between existing and new development around the edges of the site. Buffer areas will also offer high quality, safe routes and spaces for amenity and leisure.

Design Principles:

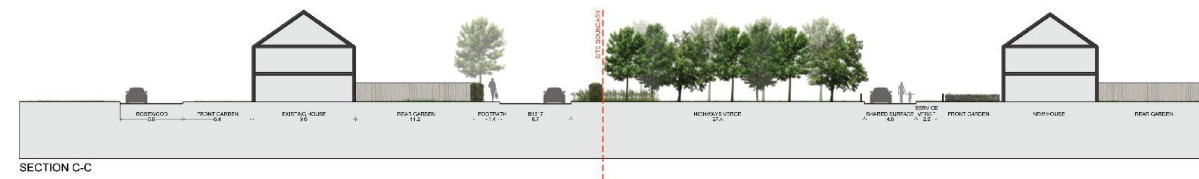
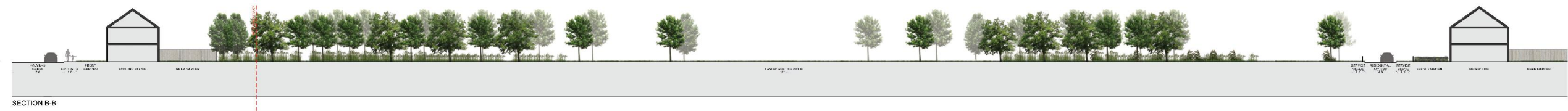
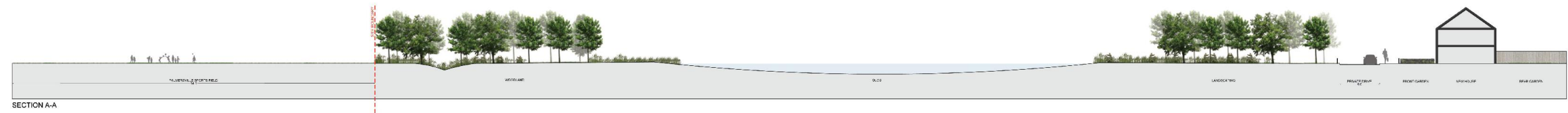
- Buffer areas should form a meaningful space with a natural landscape character with native landscaping.
- New development should generally front onto buffer areas.
- Development should generally avoid high density built forms towards the edges of the site – other than identified primary points of access and key features.
- Pedestrian and cycle links should be included, where feasible, in buffer areas.

The cross sections on the following pages illustrate an indicative detailed design of edges and buffer areas at key locations.



A – A South West Corner, B – B South West Corner, C – C Killingworth Lane B1317

**REP** = **DATE** \* **RATE**



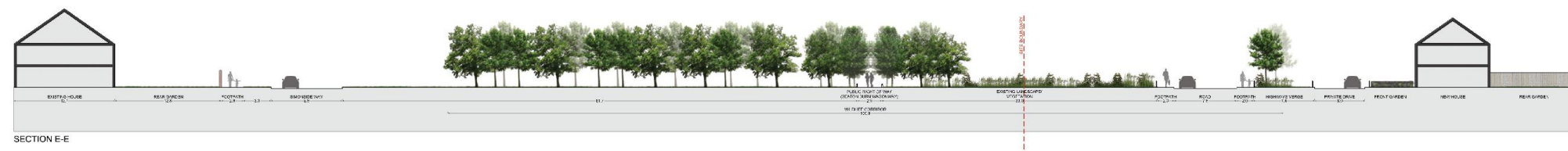
KEY PLAN (NTS)



SECTION D-D



KEY PLAN (NTS)





**SECTION G-G**





## 8.6 Open Spaces and SUDs

The presence and accessibility to open space will be the predominant characteristic of the site as a whole. A range of open spaces will be landscaped and designed as communal open space, wildlife corridors, parkland, SUDs and areas containing planting and trees. This will encompass a strong network of recreational routes connecting open spaces within the site, and promoting links to the wider countryside and other key areas of open space elsewhere in North Tyneside, such as Silverlink Biodiversity Park. All accessible open spaces should generally have clearly defined role to maximise its use and help provide a sense of place at Killingworth Moor and the potential of such spaces to contribute to the health and wellbeing of existing and new residents.

### 8.6.1 Amenity Green Space

The key areas of amenity green space are in the Community Hub Park, Palmersville open break and the area around The Holy Stone. Other smaller areas of amenity green space are spread throughout the site. These areas should be located in areas nearest to housing which allow them to be more accessible while also being further away from areas which are designed for biodiversity. In these areas the design should:

- Provide opportunities for informal play
- Have good pedestrian connections
- Incorporate waste bins and seating

### 8.6.2 Feature Green Spaces

Each character area should include feature green spaces. These do not need to be large areas but should be designed to create focal points within the development and each with a distinct character to create a sense of place and assist with legibility. In these areas the design should:

- Use landscaping to provide distinct characters and aid legibility. For example tree species could be focussed into clusters of single species for each feature green space such as limes planted entirely in one area and oaks planted in another.
- Boundary treatments designed to frame the spaces.

### 8.6.3 SUDs

Within areas of open space, SUDs will be used to hold and restrict the discharge of water. The SUDs system should be designed with a variety of features such as basins, wetland with reed and other aquatic vegetation cover, swales and new open ditches to act as water conduits.

SUDs should utilise existing low points which are susceptible to ponding and other SUDs should be created in new areas to provide catchment from adjacent development areas. SUDs should form an integrated part of the site's landscape strategy and follow the design principles below:

- Designed to be attractive and to enhance biodiversity and the natural environment.
- SUDs Ponds should be designed in such a way that prevents them from becoming a bird attracting feature. There is a general presumption against the creation of open

water bodies within 13 km of Newcastle Airport. Any permanent open water bodies associated with the scheme should be fully covered. This would take the form of reed beds and netting, with the netting proposed as a temporary measure until the reed beds become established.

- Detention basins are encouraged which will be used to attenuate the peak flow from a rainfall event. These are open, areas of grass that will normally be dry, except after major storm events. In heavy rainfall they will be used to store water for a short time. These areas can be multifunctional, designed to be used as general open space for leisure and recreation throughout most of the year.
- The existing pattern of ditches on the site should be widened where necessary and having regard to the drainage strategy. These will have a dual role in connecting water bodies and creating wildlife links

### 8.6.4 Wildlife Areas

Sufficient provision must be made on site for the creation of biodiversity value to ensure a rich and diverse range of habitat and species. Such areas will be specifically designed and in some instances will have limited public access. In these areas the design should:

- Planting should include an appropriate mixture of diverse wildflower grassland, native woodland, scrub planting, native trees, woodland edge planting and wetland marginal planting.
- Enhance the connectivity and functionality of designated wildlife corridors and green links.
- Improve habitat opportunities for wildlife including Local Biodiversity Action Plan species.
- Several areas around the site will be multifunctional for the community and wildlife and biodiversity. One such area is the Seaton Burn wagonway. In this area it will be important to adequately light spaces but in a way that does not negatively affect wildlife. Low level solar powered lighting is an appropriate example. Along Seaton Burn Wagonway, a landscape buffer of approximately 50 metres is expected to each side, along the entire length.

### 8.6.5 Landscape Setting

To improve the landscape setting of character areas across the site, the following design principles should be followed:

- Retain and protect existing tree groups, copses and field boundaries. These features should be considered as opportunities for movement corridors and green links for residents, wildlife and water. For example, potential to incorporate swales/ ditches to link to wider SUDs areas.
- Appropriate landscaping to be provided within front gardens, including hedges and shrubs. Provision of some back garden trees to be considered, consider fruiting trees.
- Enhance retained landscape features to create strong frontages and enhance route ways.
- Set back development behind green verges and tree planting where appropriate to create an attractive street scene.



### 8.6.6 Play Areas

The site should include a mixture of informal play areas and 2 equipped areas for play. The locations of the play sites are shown on the Masterplan Layout. The detailed design of the play areas should be developed in liaison with North Tyneside Council to ensure an appropriate range of play experiences. Equipped areas of play should be designed to address the key principles below:

- Appropriately located and laid out with safe surfacing and boundary fencing.
- Be in visually prominent positions within the development.
- Be located so that a play space can be reached within reasonable walking distance of the identified catchment area.
- Provide a range of play equipment suitable for children of different ages.

### 8.6.7 Allotments

Allotments will be located at 2 different areas locations around Killingworth Moor, providing walkable access for residents throughout all the development. The locations of the allotments are shown on the Masterplan layout. The detailed design of the allotments will be developed in liaison with North Tyneside Council, however in general allotments should be designed in accordance with the good allotment standard which includes:

- Good site access
- Good security
- Well-maintained paths
- Adequate water provision

To ensure that allotments sit comfortably within the landscape, hedges should be planted to edges of all allotment sites. These should be of a sufficient depth and height to avoid boundary fences being a dominant feature.



## 9. DELIVERY

### 9.1 Securing Comprehensive Delivery

This Masterplan seeks to provide a framework upon which the Killingworth Moor site can be delivered in full with appropriate delivery of infrastructure at the right time to address the impacts of growth. Crucial to this is recognising the requirement and expectation of co-operation between landowners and recognition that the overall suitability of delivery at any part of the site is dependent upon securing an appropriate share of the full infrastructure requirements of the site as a whole, based upon an approximate capacity of 2,000 homes, employment land and other facilities. To facilitate this, an indicative phasing plan and infrastructure delivery schedule have been developed. This guidance provides an outline and understanding of what infrastructure requirements might arise with each phase of development and will require specific detailed consideration as part of future planning applications.

Due to the site wide shared infrastructure, the Council's preferred approach is for an outline planning application to be submitted for the whole development. However, due to the site being in multiple land ownerships, it is recognised that separate planning applications may come forward for different areas.

In order to avoid the piecemeal and poorly integrated development of the site, applicants are expected to demonstrate how the proposed development would contribute to the vision and development objectives for the site. In addition, applicants will be expected to demonstrate how the development would not prejudice the overall proposals and objectives of the Masterplan. Applicants should use their Design and Access Statement and Planning Statements to not only demonstrate how they have incorporated high standards of design but also to explain how the proposed development would fit together with, and help deliver, the wider masterplan, including necessary infrastructure. Any application will need to be in line with a Comprehensive Drainage Strategy and Landscape Masterplan for the whole site.

The Council will expect planning applications for individual phases/parcels of land to demonstrate how their proposals would be integrated with the wider site. Proposals will be required to demonstrate how they will provide vehicular access to the individual sites and provide detailed layouts of all other necessary highway infrastructure and pedestrian/cycle. Other design considerations will also need to be demonstrated, such as how the application would enable the provision will contribute towards the Masterplan street hierarchy plan, would need to be demonstrated. This could be achieved through the submission of a Layout Plan, which provides detailed parcel design work and demonstrates how the design principles of the design code will be met within the planning application red line boundary.

The Council will seek to ensure that any parts of the site reliant on access over third party land are unlocked for development. In determining applications, the Council will need to be satisfied that development of individual parcels will not sterilise or frustrate delivery of other parts of the site. Conditions and legal agreements may be used to ensure specific actions are taken to ensure the delivery of the whole site.

### 9.2 Housing Distribution

The approach to the distribution of housing numbers across the site needs to be carefully considered to ensure Policy S4.4 (b) is complied with. An indication of the delivery of the housing across the site is provided below:

- Phase 1: Approximately 842 houses
- Phase 2: Approximately 774 houses
- Phase 3: Approximately 384 houses

A site wide density range parameter plan that demonstrates approximately 2000 houses across the site, will be submitted and agreed (either as part of an overarching EIA or planning application) which demonstrates how the application conforms to Policy S4.4 (b).

Subsequent applications will need to demonstrate conformity with this housing distribution plan. Any variations from the above will need to be robustly explained and justified. The implementation of this will ensure that the Council maintain control over the site in order to ensure the comprehensive development of the site.

### 9.3 Indicative Phasing Plan

The phasing will see the development delivered across 3 approximate phases over a 15 year period as indicated on the plan below, with the necessary infrastructure delivered in general accordance with the Infrastructure Delivery Schedule.

The phasing of the development will be crucial for co-ordinating and ensuring the success of the sites. The Proposed Phasing Plan takes into account the need for infrastructure to be provided in a timely manner. It also reflects the need to support the development of communities and to avoid, as far as possible, the creation of pockets of development that are isolated from existing or proposed services and facilities.

The phasing plan allows for development occurring from multiple outlets simultaneously. The indicative sequence of phasing is shown in the phasing plan – phases will run concurrently and some may overlap depending on specific developer's programmes. This approach will ensure a measured and steady delivery of housing in line with the Council's annual housing target.

As this development is expected to take place over 15 years, it is acknowledged that it is difficult to accurately plan how the development will come forward. The Phasing Plan should therefore be regarded as indicative and will be applied with a degree of flexibility to enable the development to respond to changing circumstances over time. The Council's overriding consideration for delivery of specific parcels of land will be to ensure that the infrastructure necessary to support those homes is in place or will be delivered and the overarching principles set out in this Masterplan are achieved.



Indicative Phasing Plan





## 9.4 Infrastructure Delivery Schedule

The infrastructure delivery schedule is based upon the identified character areas across the site and the broad phasing plan in order to determine the likely timescales for the delivery of key infrastructure projects on the site. Within the Masterplan there are 3 phases of development.

- Phase 1 will begin in from 2018/19 – 2023.
- Phase 2 will commence towards the end of the phase 1 build out (likely to be in the period from 2023 – 2027.
- Phase 3 will follow phase 2 and continue to 2031.

As applications come forward there will be more detailed phasing plans. Trigger points will be established during the planning application process to ensure that associated infrastructure is provided in tandem. The trigger points may be calendar dates or development-based triggers such as number of units occupied.

In delivering the sites required infrastructure, no one development area should compromise the delivery of another part of the site.

The infrastructure delivery schedule below only relates to onsite infrastructure. Planning Contributions and Section 278 agreements will be required for off-site works which will be secured through the planning application process.

Character Area 1: South West Edge	
Infrastructure	Delivery
SUDs	Phase 1
Bus-permeable residential street from the B1317 to the new link road. Pedestrian and cycle route along the existing east/west PROW and secondary pedestrian and cycle routes through the green space to the south	Phase 1
Associated natural and semi natural open space	Phase 1

Character area 2: Palmersville Gateway	
Infrastructure	Delivery
Link Road from A1056 to B1505. The link road will also include the principle	Phase 1

pedestrian and cycleway (k1)	
Including forest gate junction improvements	
Bus Service along Link Road from A1056 to B1505	Phase 1

Character area 3: Community Hub	
Infrastructure	Delivery
Primary school	Early Phase 2 – after the completion of 851 Units. The school will require a 4 year programme in terms of planning, commissioning, construction and opening which should be planned into timescales.
Secondary School	Phase 2. The school will require a 4 year programme in terms of planning, commissioning, construction and opening which should be planned into timescales.
Local Centre – delivery of approximately 500 sqm of convenience retail space.	Phase 2
Equipped areas for play – Requirement for a Neighbourhood or Strategic Equipped Area for Play (between 1,000sqm to 11,600sqm) within the north-central part of the site	Phase 2
Branch GP surgery	TBC
Local area of open space	Phase 2
Improvements to existing farm road to Holystone Roundabout / A191 corridor (K3, K11)	Phase 3
Relevant section of Link Road identified on phasing plan	Phase 2



Character area 4: Metro Edge	
Infrastructure	Delivery
Potential Metro Station	Phase 2/3
Secondary pedestrian and cycle route (K5)	Phase 2/3
Secondary distributor route linking Backworth Park to the link road which then links to the wider area.	Phase 1/2/3
Bus service	Phase 1/2/3
Improvements to existing farm road to Holystone Roundabout / A191 corridor (K11)	Phase 2/3
Pedestrian and cycle route linking proposed Metro station with principle pedestrian and cycle route (K12)	Phase 2/3
40 Allotments to the north of Forest Gate	Phase 1/2

Character area 5: Commercial Quarter	
Infrastructure	Delivery
Strategic landscape enhancements along wildlife corridor	Phase 3
Bus service	Phase 3
Secondary pedestrian and cycle route (K8)	Phase 3
Secondary distributor route including an underpass, connecting the Killingworth Moor site with the A186 for taking site traffic and potential secondary education trips away from the primary Holystone A19 / A191 roundabout junction.	Phase 3
K9 Diversion of National Cycle Network	Phase 3

Route 10 (Reivers Route) following existing waggonway through the site to A19 underpass.	
Natural and semi natural open space	Phase 3

Character area 6: Western Gateway	
Infrastructure	Delivery
Improvements to existing farm road to Holystone Roundabout / A191 corridor (K3)	Phase 2
Strategic landscape enhancements along wildlife corridor	Phase 1
K4,5, 6, 7 Pedestrian and cycle route linking to Killingworth Centre and Killingworth South / Forest Hall.	Phase 1
Relevant section of Link Road identified on phasing plan	Phase 2

Character area 7: Northern Gateway	
Infrastructure	Delivery
Pedestrian and cycle route to Killingworth Centre / George Stephenson High School (K2)	Phase 1
Strategic landscape enhancements along wildlife corridor	Phase 1
Link Road from A1056 to B1505 (Including Killingworth interchange works). The link road will also include the principle pedestrian and cycleway (k1).	Phase 1 and 2
Bus Service along Link Road from A1056 to B1505	Phase 1
Natural and semi natural open space	Phase 1



Character area 8: Backworth Bridge	
Infrastructure	Delivery
35 Allotments	Phase 3
2 SUDs ponds	Phase 1
Local Equipped Area for Play (of 600sqm to 800sqm)	Phase 2
Secondary access point will exist where the primary north-south route intersects with the B1317, providing a further alternative route across the A19.	Phase 2
Provide link for pedestrians and cyclists from Killingworth over the A19 to Backworth Village connecting with existing infrastructure to Seghill and Northumberland to the north (EX16)	Phase 1
Natural and semi natural open space	Phase 1
Relevant section of Link Road identified on phasing plan	Phase 1



### 9.5 Developer Contributions

A Site Specific Infrastructure Delivery Plan (IDP) has been produced to co-ordinate the delivery of the infrastructure which is necessary to support the development on Killingworth Moor. The IDP draws upon the evidence base prepared to support the preparation of the Masterplan. The IDP can viewed on the Council's Website under [Site Specific Evidence](#). The infrastructure requirements for the site are set out in section 6 in this document.

A further Engagement exercise is currently being undertaken with the Council's Service areas to determine the detailed requirements and associated financial contributions. The contributions are subject to change through this process. North Tyneside currently meets the infrastructure needs from new development on an application by application basis and has adopted a guidance document on planning obligations (LDD8). The Community Infrastructure Levy (CIL) is currently being progressed and may be used to secure appropriate infrastructure.



## 9.6 Community Engagement

As part of the Masterplan preparation, a four week public Engagement was undertaken from the 23<sup>rd</sup> October – 20<sup>th</sup> November 2017. This engagement has supported development of a Masterplan scheme that reflects the wishes and aspirations of all key stakeholders.

An Engagement Statement has been produced that out a summary of the main issues raised by representations and how they will be addressed. The detailed planning application(s) will include further public engagement to address matters not previously informed by engagement on the Masterplan; however each application will be in conformity with the agreed Masterplan.



## 9.5 Validation Checklist for Planning Application

The information below sets out the requirements of information necessary to validate a planning application for the site. This is applicable to an outline, hybrid and full planning application. This information should be considered a guide only. Further information may be requested to support a planning application.

Completed planning application form	Yes
Location plan	Yes
Site Plan	Yes
Completed Ownership Certificate (A, B, C, D)	Yes
Completed Agricultural Holdings Certificate	Yes
Appropriate fee	Yes
Design and Access Statement*1	Yes
Application Plans	Yes
Affordable Housing Statement	Yes
Air Quality Assessment	Yes
Archaeological Assessments: This should include archaeological fieldwork, geophysical survey, evaluation trial trenching and topographical data	Yes
Coal Mining Risk and Mineral Safeguarding Assessment *2	Yes
Ecological Survey Assessment and Mitigation Report & Protected Species Survey	Yes
Flood Risk and Drainage Assessment*3	Yes
Heritage Statement	Yes
Land Contamination Assessment	Yes
Landscaping Details*4	Yes
Marketing Information	No
Noise Assessment	Yes
Open Space Assessment	Yes

Planning Obligations – Draft Head of Terms	Yes
Planning Statement	Yes
Statement of Community Involvement*5	Yes
Structural Survey	No
Sustainability Statement	Yes
Telecommunications Development	No
Town Centre Use Assessment	No
Transport Assessments & Statements, Travel Plans, Parking and Highways	Yes
Tree Survey and/or Statement of Arboricultural Implications of Development	Yes
Ventilation / Extraction Details	No
Daylight/sunlight/Microclimate study	No

\*1 The Design and Access Statement should identify and describe how buffer areas and edges of the site have been sensitively designed and respond to design principles in the Masterplan Guidance.

\* 2 Coal Mining Risk should be informed by intrusive site investigations to locate the mine entries and establish any necessary no build zones around these features, in order that this information can inform any layout proposed.

\*3 Applications should demonstrate how they fit in with the Comprehensive Drainage Strategy for the whole site.

\*4 Applications should demonstrate how they fit in with the a Landscape Masterplan for the whole site. This should include details on planting to be retained, new planting and green spaces, soft landscaping, boundary treatments, footpath/cycleway enhancement/creation and surface water drainage infrastructure (including SUDs).

\*5 Planning applications should demonstrate how the community have been engaged and consulted, and, how this has informed proposals. It is recommended that substantive matters not previously subject to engagement with the community, for example as part of the preparation of this Masterplan, should be published for engagement with the community.

### **Environmental Impact Assessment**

Under the provisions of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, the development proposed for at Killingworth Moor will require an Environmental Impact Assessment. If EIA is required, the Environmental Statement should be submitted along with the formal planning application.

## 9.6 Monitoring and Review

The proposed development of Killingworth Moor is expected to take place over a long period of time. It is important that as development The effective implementation of the Masterplan within the plan period will be monitored and reviewed. The monitoring will include the following criteria:

- Planning applications
- Housing delivery
- Infrastructure delivery and requirements
- Phasing
- Section 106 contributions
- Review any changing social and economic needs of North Tyneside which may affect the Masterplan.

Changes may be made to the approved Masterplan to reflect the results of the monitoring. The monitoring will be reported every 12 months. The report will identify where targets are being met and identify potential changes to the Masterplan where targets or infrastructure projects are not being met. The monitoring report will be made available to the public and will be available to view on the Council's website.



## Appendix 1: Masterplan Supporting Surveys

- Strategic Concept Framework Plan, Pick Everard, 2015
- Killingworth Moor Outline Development Framework, July 2016, ARUP
- Public Transport Demand Scoping Study, May 2016, Capita
- North Tyneside Council Local Plan – Public Transport Demand Scoping Study, Capita, May 2016
- Killingworth Moor – Project Viability and Delivery Report, North Tyneside Council, June 2016.
- Killingworth Moor Constraints and Topology, North Tyneside Council, 2015
- Killingworth Moor Heritage Statement, Capita, July 2015
- Killingworth Moor Retail Requirements Assessment, Capita, North Tyneside Council, 2015
- Killingworth Moor, Archaeological Desk-based Assessment, Durham University Archaeological Services, August 2015
- Killingworth Moor Phase 1 Geo Environmental Desk Study, Capita, July 2015
- Killingworth Moor Agricultural Land Classification, Soil Environmental Services, July 2015
- Killingworth Moor Open Space Assessment, Capita, July 2015,
- Killingworth Moor Phase 1 Geo-Environmental Desk Study, Capita, July 2015
- Killingworth Moor Broad Scale Flood Risk Assessment and Drainage Strategy, Capita, August 2015
- Killingworth Moor Masterplan Delivery Document, Bilfinger GVA, 2015
- North East Design Review Panel Report, Design\_North East, September 2016
- Killingworth Moor Extended Phase 1 Habitat Survey, BSG Ecology, 2015
- Killingworth Moor Breeding and Wintering Bird Surveys, BSG Ecology, 2015
- Killingworth Moor Preliminary Flood Risk Assessment and Drainage Strategy Review, Wardell Armstrong, 2015
- Landscape And Visual Impact Assessment, Southern Green, November 2015,
- Noise Assessment, prepared by Noise and Vibration Associates, 2015
- Employment Marketing Assessment, Bilfinger GVA, 2015
- A19 Underpass Options Report, Fairhurst, 2015
- Highways Appraisal, White Young Green, 2015
- North Tyneside Local Plan 2015 Examination in Public Matter 4 – Housing Land Supply and Delivery, Response on behalf of the Killingworth Moor Consortium, Bilfinger and GVA, October 2016
- North Tyneside Local Plan, Strategic Sites, Pedestrian / Cycling Study, May 2016, Capita
- North Tyneside Local Plan, Murton Gap and Killingworth Moor, Site Specific Infrastructure Delivery Plan, June 2016, Capita
- Arboricultural Tree Survey, All About Trees, August 2017
- Phase 1 Geo-Environmental Desk Study, November 2017, Wardell Armstrong