HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

DRAFT FOR CONSULTATION

DESIGN AND ACCESS STATEMENT

Regulation No. 5 (2) (q)

January 2022

aja architects

TRITAX SYMMETRY

A TRITAX BIG BOX COMPANY

This Design and access Statement (DAS) has been prepared on behalf of Tritax Symmetry (Hinckley) Limited by AJA Architects with input from the following consultants:

savills

EVERSHEDS SUTHERLAND

framptons

BWB
A CAF GROUP COMPANY

edp

wsp

Baker Rose

rps

Contents

1. INTRODUCTION

1.1 General

AJA Architects LLP have been appointed by Tritax Symmetry (Hinckley) Limited (TSH) to act as Architects for the development of the proposed Hinckley National Rail Freight Interchange. (HNRFI)

The Design and Access Statement (DAS) has been produced, in draft for consultation, and on the understanding that it will be updated to take account of the results that come out of the consultation process.

In final form it will then accompany an application by Tritax Symmetry (Hinckley) Limited to the Secretary of State via the Planning Inspectorate for a Development Consent Order (DCO) under the Planning Act 2008.

In principle, the Design and Access Statement sets out to:

- Describe the site and the surrounding context within which the proposals are being advanced,
- Describe the design process that the applicant has been through to explore the development parameters,
- Address the principles of the development and concepts of the design,
- Specifies the amount of development for which development consent is being sought,
- Explores the potential buildings locations on the site,
- Explores the scale and massing to establish 3D envelopes of the parameters,
- Describes how the development will be accessed by all modes,
- Reviews the principles behind the appearance of the development.

The DAS should be read in conjunction with the other application documents, and in particular the Parameters Plan, Illustrative Masterplan and the Planning Statement.

1. INTRODUCTION

1.2 The Site

The main site lies within the East Midlands Region and the administrative boundaries of Leicestershire County Council, Blaby District Council, the Borough of Hinckley and Bosworth and the Civil Parishes of Hinckley, Burbage, Elmesthorpe, Barwell, Stoney Stanton, Sapcote and Aston Flamville.

Supporting highway works are proposed in Blaby, Hinckley and Bosworth and Harborough Districts in Leicestershire and in the Borough of Rugby in Warwickshire and the Civil Parishes of Hinckley, Burbage, Elmesthorpe, Barwell, Stoney Stanton, Sapcote, Aston Flamville and Lutterworth.

The site is adjacent to the Felixstowe to Nuneaton Main Line (also known as the Hinckley to Leicester Line) and is located approximately 2km east of Hinckley Town centre, immediately north west of Junction 2 of the M69.

The Order Limits for the Proposed Development comprise approximately 268 hectares of land.

The HNRFI site has the ability to directly link to the M69 and the A47 trunk road, providing easy connections to the M1 and M6, offering opportunities for the delivery of a well-connected and permeable site.

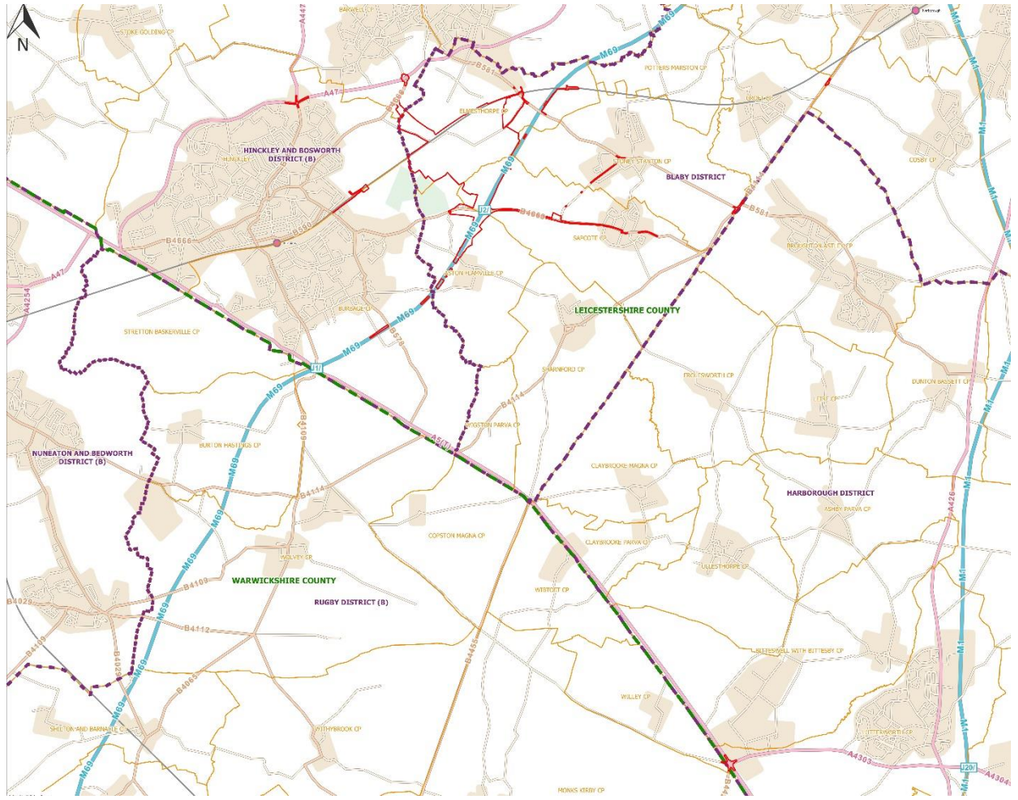


Fig.1 Site Location Plan and Boundary Designations

1. INTRODUCTION

1.3 Project Policy Context

The Planning Act 2008 provides that development consent may be granted for both a National Strategic Infrastructure Project (NSIP), referred to as the 'Principal Development' in this document, and for 'Associated Development', which is development associated with the Principal Development.

The National Policy Statement for National Infrastructure (NPS) sets the policy against which the Secretary of State for Transport will make decisions on applications for development consent for nationally significant infrastructure projects on the road and rail networks and strategic rail freight interchanges.

Paragraph 2.44 of the NPS states:
'The aim of a strategic rail freight interchange (SRFI) is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg by road, through co-location of other distribution and freight activities. SRFIs are a key element in reducing the cost to users of moving freight by rail and are important in facilitating the transfer of freight from road to rail, thereby reducing trip mileage of freight movements on both the national and local road networks'

And Paragraph 4.88 of the NPS describes the key elements of a SFRI application: *'Applications for a proposed SRFI should provide for a number of rail connected or rail accessible buildings for initial take up, plus rail infrastructure to allow more extensive rail connection within the site in the longer term. The initial stages of the development must provide an operational rail network connection and areas for intermodal handling and container storage. It is not essential for all buildings on the site to be rail connected from the outset, but a significant element should be.'*

Accordingly, a SRFI provided under the Planning Act 2008 as a NSIP must provide the following types of rail freight facility:

- an intermodal area where containers are lifted between rail freight wagons and container lorries;
- rail-connected buildings either with their own dedicated rail siding or sufficiently close to the rail terminal to allow containers to be moved from the rail wagons into the warehouse by overhead cranes or reach stackers without the need for them to be loaded first onto a HGV or 'tugmaster' yard tractor vehicle;
- rail-served buildings which allow containers to be moved from the rail wagons into the warehouse by means of an HGV or tugmaster vehicle.
- rail-accessible buildings with the potential either to be rail-connected or rail-served.

1. INTRODUCTION

1.4 Project Summary

In summary, the Principal Development comprises the following main components.

Development on the Main HNRFI Site

- The demolition of Woodhouse Farm, Hobbs Hayes, Freehold Lodge and the existing bridge over the Leicester to Hinckley railway on Burbage Common Road;
- New rail infrastructure including points off the existing Felixstowe to Nuneaton railway providing access to a series of parallel sidings at the HNRFI, in which trains would be unloaded, marshalled and loaded;
- An intermodal freight terminal or 'Railport' capable of accommodating up to 16 trains up to 775m in length per day, with hard-surfaced areas for container storage and HGV parking and cranes for the loading and unloading of shipping containers from trains and lorries;
- Up to 850,000 m^2 (gross internal area or GIA) of warehousing and ancillary buildings with a total footprint of up to 650,000 m^2 and up to 200,000 m^2 of mezzanine floorspace. These buildings might incorporate ancillary data centres to support the requirements of HNRFI occupiers and operators. They would also incorporate roof-mounted photovoltaic arrays with a generation capacity of up to 38 megawatts (MW), providing direct electricity supply to the building or exporting power to battery storage in the energy centre;
- An energy centre incorporating an electricity substation connected to the local electricity distribution network and a gas-fired combined heat and power plant with an electrical generation capacity of up to 10 megawatts (MW), supported by 20 MW standby generation capacity and 20MW battery capacity to provide electrical supply resilience. Total electricity generation capacity would not exceed 50 MW;
- A lorry park with welfare facilities for drivers and a fuel filling station;
- A site hub building, providing office and meeting space for use in connection with the management of the HNRFI and ancillary car parking;
- Terrain remodelling, hard and soft landscape works, amenity water features and planting;
- Noise attenuation measures, including acoustic barriers up to six metres in height;
- Habitat creation and enhancement and the provision of publicly accessible amenity open space at the south-western extremity of the HNRFI near Burbage Wood and to the south of the proposed A47 Link Road between the railway and the B4668/A47 Leicester Road;
- Pedestrian, equestrian and cycle access routes and infrastructure, including a new dedicated route for pedestrians, cyclists and horse riders from a point south of Elmesthorpe to Burbage Common;
- Utility compounds, plant and service infrastructure;
- Security and safety provisions inside the HNRFI including fencing and lighting;
- Drainage works including groundwater retention ponds, underground attenuation tanks and swales;
- **Highway and railway works**
- Works to M69 Junction 2 comprising the reconfiguration of the existing roundabout and its approach and exit lanes, the addition of a southbound slip road for traffic joining the M69 motorway and the addition of a northbound slip road for traffic leaving the M69 motorway at Junction 2.
- A new road ('the A47 Link Road') from the modified M69 Junction 2 to the B4668 / A47 Leicester Road with a new bridge over the railway, providing vehicular access to the proposed HNRFI from the strategic highway network. The A47 Link Road would be intended for adoption as a public highway under the Highways Act 1980.
- Modifications to several junctions and amendments to Traffic Regulation Orders on the local road network in response to the different traffic flow pattern resulting partly from the trips generated by the HNRFI development and principally from the change in movements as a result of the M69 Junction 2 upgrade;
- Works affecting existing pedestrian level crossings on the Leicester to Hinckley railway at Thorney Fields Farm north-west of Sapcote, at Elmesthorpe and at Outwoods between Burbage and Hinckley. In addition, pedestrian level crossings serving footpaths that connect Burbage Common Road to Earl Shilton and Barwell are proposed for closure with the associated footpaths being diverted;
- Off-site (outside the Order Limits) railway infrastructure including signals, signage and electricity connections.

2. SITE LOCATION, CONTEXT & ANALYSIS

2.1 Site Location

The main site lies within the East Midlands Region and the administrative boundaries of Leicestershire County Council, Blaby District Council, the Borough of Hinckley and Bosworth and the Civil Parishes of Hinckley, Burbage, Elmesthorpe, Barwell, Stoney Stanton, Sapcote and Aston Flamville.

Supporting highway works are proposed in Blaby, Hinckley and Bosworth and Harborough Districts in Leicestershire and in the Borough of Rugby in Warwickshire and the Civil Parishes of Hinckley, Burbage, Elmesthorpe, Barwell, Stoney Stanton, Sapcote, Aston Flamville and Lutterworth.

The site is adjacent to the Felixstowe to Nuneaton Main Line (also known as the Hinckley to Leicester Line) and is located approximately 2km east of Hinckley Town centre, immediately north west of Junction 2 of the M69.

The Order Limits for the Proposed Development comprise approximately 268 hectares of land.

2.2 Site Description

2.2.1 Railway Infrastructure

The main HNRFI site lies to the south east of the Felixstowe to Nuneaton railway line, which forms part of Network Rails strategic freight network. The Main Order Limits also include land to its north western side. The land either side of the railway is presently connected by three level crossings serving footpaths and an overbridge on the Burbage Common Road within the scope of Order Limits.

2.2.2 Highway Infrastructure

The M69 Junction 2 is located to the south east of the HNRFI site and is connected to the M69 via a northbound entry slip lane and southbound exit slip lane and to the east and west with connections to the B4669 Hinckley Road.

Burbage Common Road crosses the main HNRFI site, and is a rural lane that connects the B4668 at Burbage Common with the B581 Station Road in Elmesthorpe as well as providing access to Woodhouse Farm and Langton Farm. The road crosses the railway as a single lane hump-backed bridge.

Access to other residential properties in the Main HNRFI Site, including Freeholt Lodge and Hobbs Hayes to the north of M69 Junction 2, is from a track that extends from Smithy Lane, which branches from the B4669 Hinckley Road.

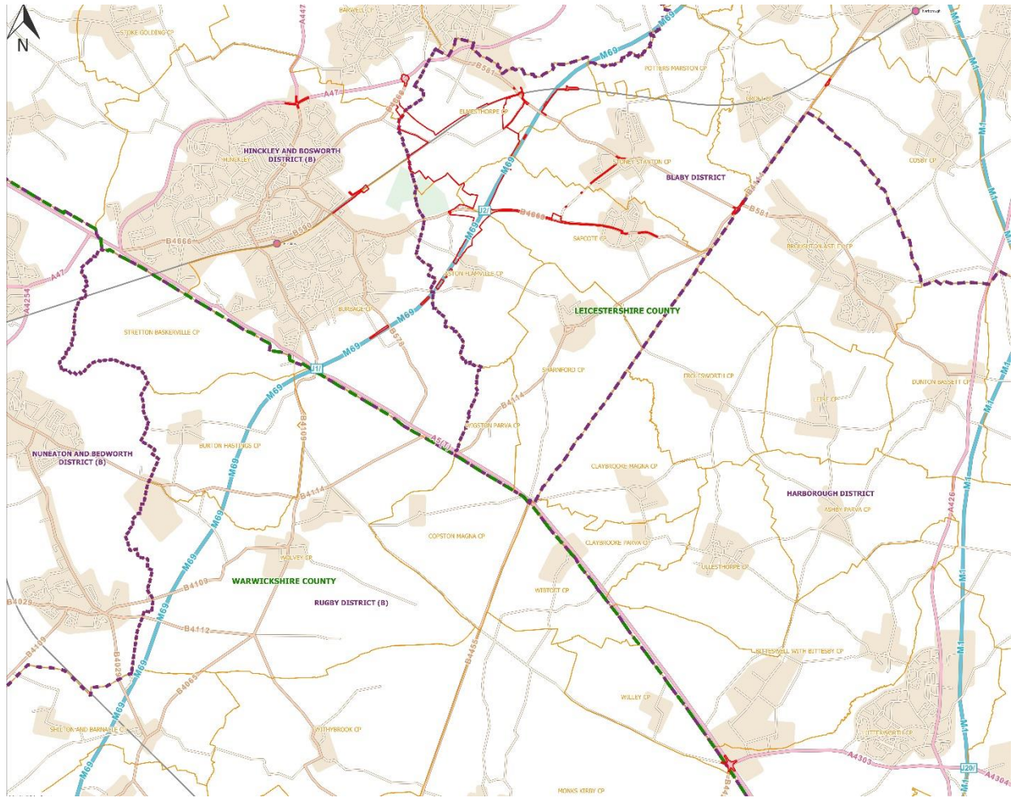


Fig.2 Site Location Plan

2. SITE LOCATION, CONTEXT & ANALYSIS

2.2.3 Landform / Topography

The DCO site lies in National Character Area (NCA) 94 'Leicestershire Vales', which comprises an open landscape of gentle clay ridges and valleys used for a mixture of pasture and arable agriculture, bisected by small watercourses.

Although to casual inspection the Main HNRFI Site appears broadly level, it slopes gently downhill from a high point of 110m Above Ordnance Datum (AOD – i.e. above sea level) adjacent to M69 Junction 2 to a low point of 83m AOD beside the railway at the northern end of the Main Site.

South-west of M69 Junction 2 the M69 motorway falls gently to a height of c. 96m AOD at the southern extremity of the DCO Site.

To the west of the railway the A47 Link Road corridor falls from 99m to c. 93m before rising gently to 96m where it joins the A47 Leicester Road. This gentle valley is associated with an unnamed watercourse.

2.2.4 Watercourses

An unnamed stream flows north-eastwards through the southern portion of the Main Site before running alongside the M69 motorway. Several field drainage ditches and small ponds are also present on the Main Site. These discharge into an unnamed tributary of the Thurlaston Brook.

2.2.5 Land Use and Landscape

Most of the Main HNRFI Site and the land inside the Main Order Limits to the west comprise a regular pattern of fields used for arable farming and grazing. The fields are defined by hedgerows and interspersed with deciduous trees. Interspersed amongst the fields are a small number of agricultural dwellings and outbuildings with a cluster of buildings at Woodhouse Farm in the centre of the Main HNRFI Site.

Businesses in and immediately adjacent to the Main HNRFI Site include a farm shop at Woodhouse Farm, close to the centre of the Main HNRFI Site, and the Wentworth Livery Stables on Burbage Common Road to the south of Elmesthorpe. Burbage Common Road serves as an equestrian route to Burbage Common for riders from the stables.

Fig.3 Aerial image of main HNRFI site with M69 in foreground looking towards Hinckley and Burbage.

2. SITE LOCATION, CONTEXT & ANALYSIS

2.2.6 Utilities

Pole mounted, overhead electricity lines cross the main HNRFI site in various locations, serving the existing dwellings and farms. Similarly, overhead, pole mounted telegraph lines also cross the site and follow the alignment of Burbage Common Road.

To the south east of M69 Junction 2 and within the DCO site, there is a large electricity pylon, from which the overhead lines head in a south west - north east direction and outside of the DCO site.

There are also the full suite of other services that exist within the Main Order Limits but all are located underground and whilst they don't manifest themselves as features in the landscape they have been identified and plotted as part of the consideration of the HNRFI.

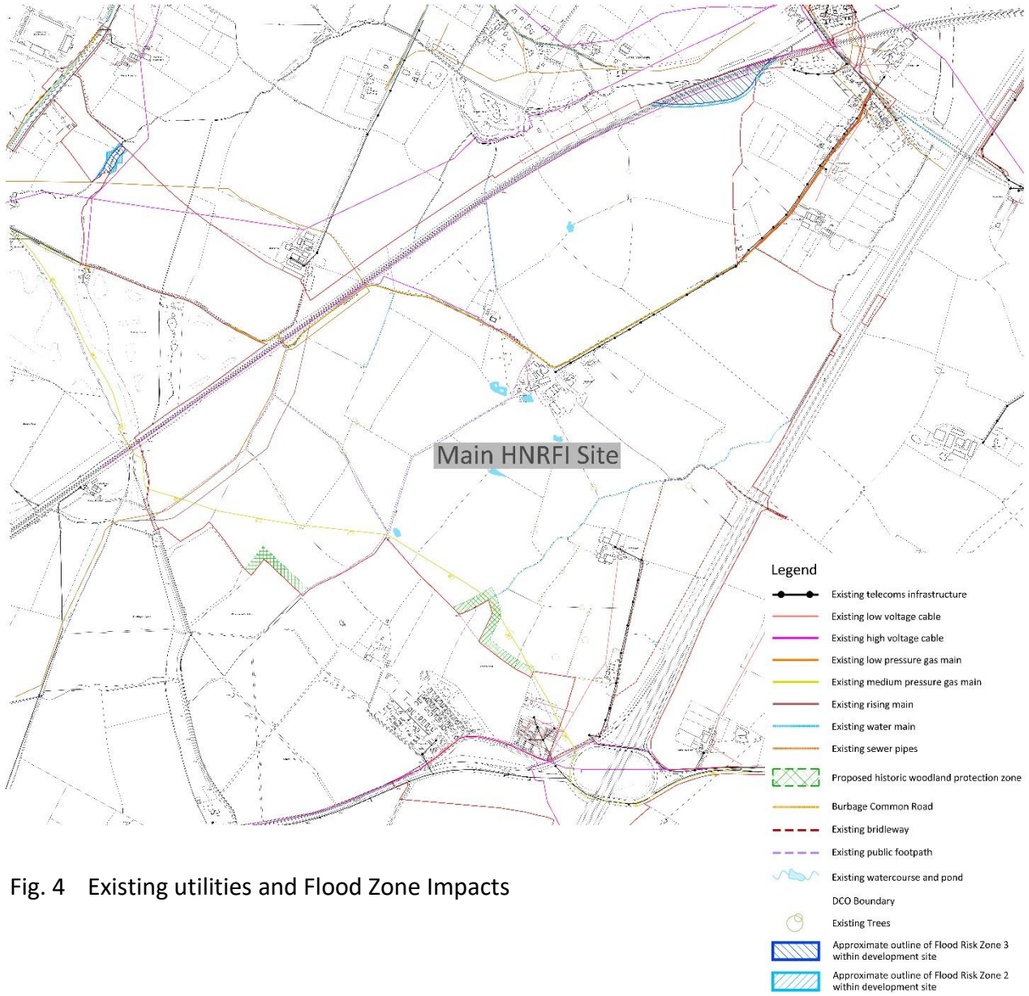


Fig. 4 Existing utilities and Flood Zone Impacts

2.2.7 Public Rights of Way

There are a number of public bridleways and public rights of way (PROW) that cross the site within the Main Order Limits. The routes enter and leave the site at various points around the perimeter of the main HNRFI site including a crossing over the M69 via an existing bridge as well as a number that utilise the level crossings on the Felixstowe to Nuneaton main line. Two routes also connect into Burbage Common & Woods on the southern boundary.

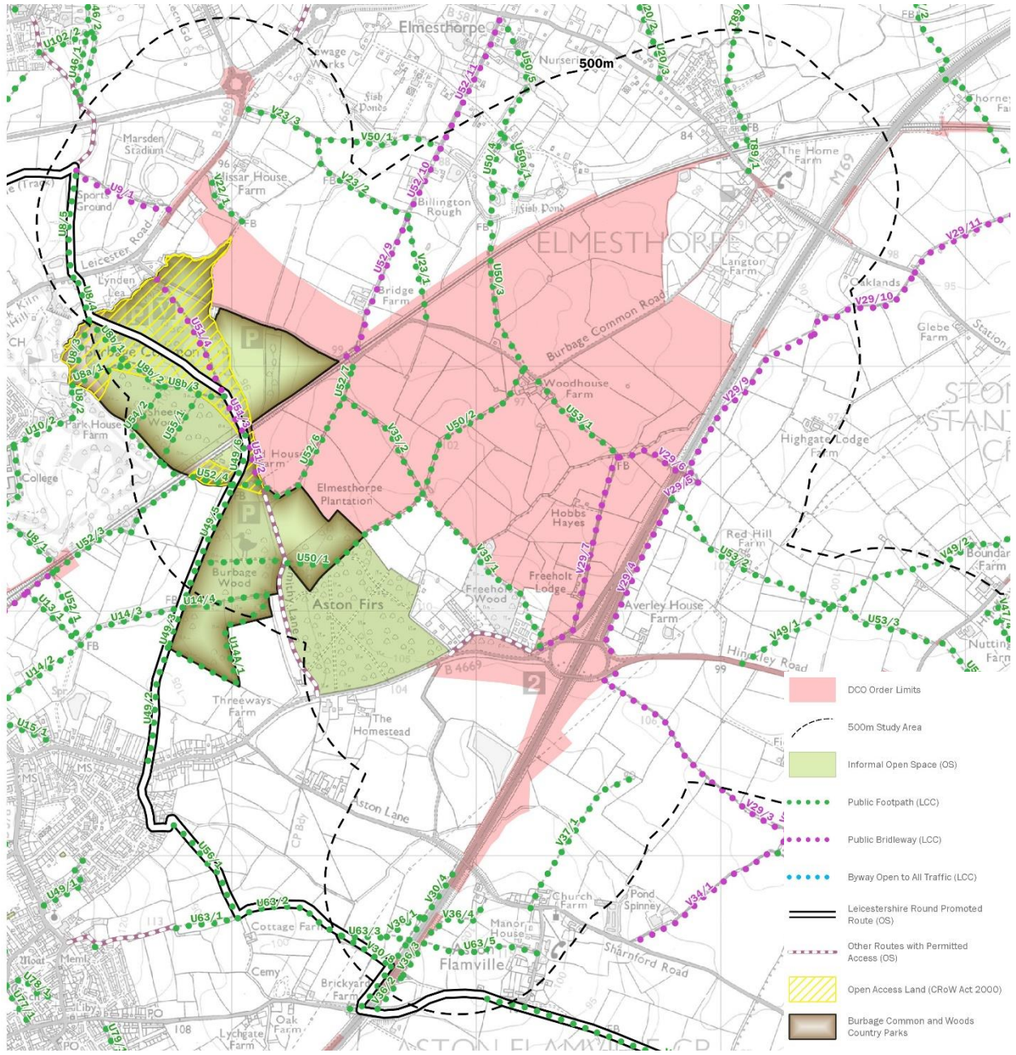


Fig 5. Existing Bridleways and Public Rights of Way

2. SITE LOCATION, CONTEXT & ANALYSIS

2.2.8 Public Transport

The nearest bus stops to the HNRFI Site are located approximately 200m west of the M69 Junction 2. These stops are served by the X6 bus, operated by Arriva Midlands.

The X6 runs between Coventry and Leicester, operating a two hourly service between 07.25 and 19.10. Travel time to Coventry is approximately 45 minutes, with Leicester approximately 40 minutes away.

Local services are also available from Hinckley and through to Nuneaton.

Arriva Midlands are also testing on-demand bus services in the South Leicester area after successful implementation at Lubbesthorpe.

Hinckley has a railway station, served by Cross Country trains. This is situated on the Birmingham – Peterborough line. Services run between Hinckley and Birmingham / Leicester depending on direction of travel, with usually one train per hour in either direction.

2.3 Surrounding Area

2.3.1 Character

Areas immediately outside of the Main Order Limits are generally similar in character, comprising level or gently-undulating farmland interspersed with farmsteads, smallholdings and free-standing dwellings.

2.3.2 Local Settlements

The closest settlements to the Main HNRFI Site are the village of Elmesthorpe along the B581 Station Road to the north and a mobile home park and a separate gypsy and traveller settlement off Smithy Lane to the south-west of M69 Junction 2. In the wider area and generally at a range of 2-3km from the Main HNRFI Site are the settlements of Stoney Stanton and Sapcote to the east, Earl Shilton and Barwell to the north and north-west, Hinckley and Burbage to the west and south-west and the village of Aston Flamville to the south.

Elmesthorpe has been settled since the Roman era and has a population of just over 500. Village landmarks include the 13th century St Mary's Church, partly ruined but restored at a smaller scale. Elmesthorpe railway station closed in the 1960s but the village retains a hotel and a pub.

Off Smithy Lane to the south of the Main HNRFI Site are two residential enclaves in fenced compounds – the Aston Firs Gypsy and Traveller site managed by LCC and the Castle Fields mobile home site, which is privately owned.

The village of Sapcote to the east has a population of c. 2,700. The village is a focus for community activities with a social club, pub and neighbourhood retail facilities. Stoney Stanton to the north of Sapcote has a population of almost 4,000 and includes neighbourhood-level retail, pub and dining facilities. Between Sapcote and Stoney Stanton lies Stoney Cove, a diving adventure centre in a former stone quarry with a waterside pub and restaurant.

2.3.3 Local Amenity

Burbage Common and Burbage Wood to the south-west of the Main HNRFI Site are a popular recreational resource managed by Hinckley and Bosworth Borough Council, providing woodland and open meadows for informal recreation, with car parks and a visitor centre. Hinckley Golf Course lies beyond Burbage Common, on the edge of Hinckley itself.

In the Blaby District Character Assessment (2008) the Main HNRFI Site lies in two Landscape Character Types (LCT). The northern area of the HNRFI Site falls within LCT A 'Floodplain' and the southern area is within LCT G 'Wooded Farmland'. In terms of Landscape Character Areas (LCA), the Main Site falls similarly within two zones. The northern parts of the HNRFI Site lie in LCA E: 'Elmesthorpe Floodplain' and the southern portions are located in LCA A: 'Aston Flamville Wooded Farmland'.

2. SITE LOCATION, CONTEXT & ANALYSIS

2.4 Flood Risk

The Environment Agency's (EA) Flood Zone map shows the majority of the land inside the Main Order Limits to be in Flood Zone 1. This indicates that the land is largely at low risk of flooding (a less than 1 in 1,000 annual probability of river flooding). Limited areas around the Thurlaston Brook Tributary, which crosses the corridor of the proposed A47 Link Road to the west of the Felixstowe to Nuneaton railway and then flows through the extreme northern corner of the Main HNRFI Site, are in Flood Zone 2 (between a 1 in 100 and 1 in 1,000 annual probability of flooding) and flood zone 3 (a 1 in 100 or greater annual probability of river flooding).

2.5 Cultural Heritage

There are no designated World Heritage Sites, scheduled monuments, listed buildings, registered parks and gardens, battlefields, or conservation areas inside the DCO Site.

In general terms, the majority of designated heritage assets in the wider area comprise listed buildings clustered in the historic cores of local settlements. Within 5km of the Main HNRFI Site are six scheduled monuments, 98 listed buildings and nine conservation areas. There are several groups of listed buildings in the settlements of Stoney Stanton to the east, including the Grade II* listed Church of St Michael, and in Elmesthorpe to the north is the Grade II listed Church of St Mary. The Church of St Mary in Barwell, 1.8km to the north-west of the Main HNRFI Site and 0.75km from the western end of the proposed A47 Link Road, is a Grade I listed building.

Scheduled monuments closest to the Main HNRFI Site include the ruined church at Elmesthorpe to the north, and Sapcote Castle and Moat on the west edge of Sapcote, 2km to the east-south-east. The Aston Flamville Conservation Area lies 1.3km to the south of the Main Site and lies c. 100m from southern arm of the Main Order Limits that contains the southbound slip road proposed as part of the reconfiguration of M69 Junction 2.

2.6 Nature Conservation

The Burbage Wood and Aston Firs Site of Special Scientific Interest (SSSI) lies close to the south-western boundary of the Main HNRFI Site and outside the DCO Site. This SSSI is designated for its mixed ash, oak and maple woodland, one of the best remaining examples in Leicestershire. The SSSI adjoins the Burbage Common and Woods Local Nature Reserve.

3. OPPORTUNITIES AND CONSTRAINTS

3.1 Opportunities

- The principal site at approximately 182 hectares in total the site covers a significant area and is capable of accommodating a substantial development.
- The regular form of the largest part of the site, naturally provides opportunity for development of differing size and scale.
- The proximity of M69 Junction 2 and provision of new southern slip lanes provides an excellent opportunity to connect the site to the local, regional, and national road network, opening up the site and offering the potential of a development of strategic importance.
- Furthermore, the ability to link to the A47 in the north provides greater flexibility in mitigating the highways impact upon the surrounding area.
- The location of the existing railway infrastructure, its alignment, and the known availability of freight paths on the network mean that the potential to locate an SRFI in this location is available.
- The wider commercial nature of the surrounding area and the network links means that further commercial development is contextual.
- The scale of the site means that appropriately sized, massed, and designed buildings together with appropriate screening and mitigation measures can be accommodated easily and sensibly.
- The topography of the site, and the level change, whilst not insignificant can be accommodated within a site of this scale appropriately to create development plateaus appropriate for logistics operations and also rail connected developments.
- Judged in its context, the influencing nature of the surrounding buildings and developments means potential overlooking / overbearing can be removed.
- An enhanced landscape perimeter to the eastern, northern and western boundaries provides the backbone of the ecological mitigation strategy and can create important wildlife connectivity across the site, as well as accommodating rerouted footpaths and bridleways.
- The proximity of the site to Burbage Common and Woods, means links can be created and areas opened up to extend the publicly accessible areas.
- TSH's commitment to sustainability, delivering buildings of the highest quality and commitment to building buildings to Net Zero Carbon in Construction as well as achieving a minimum BREEAM Very Good rating, provides the ability to providing future-proofed development that can attract new occupiers and deliver new employment to the area.

3. OPPORTUNITIES AND CONSTRAINTS

3.2 Constraints

- With no specific entrance, a new vehicular, pedestrian and cycle access strategy needs to be formulated.
- The physical constraints of the existing developments, the M69 and the railway all limit any development potential to the north, east and west.
- Burbage Common and Woods are being treated as the natural limit of development to the south.
- The woodland benefits from a historic woodland protection zone that limits development of any form, including new landscaping.
- The proximity of closest residential premises to the north and south, and also the west albeit some of these properties are naturally screened already or are on the far side of the existing railway lines will require careful consideration and appropriate mitigation measures.
- There are a number of views from the surrounding area, all of them need to be sensitively addressed, particularly from the land of to the north and east, and careful consideration with respect to scale and general building design but particularly the roof scape as this is the most influential element when seen from distance.
- There are a number of existing services that either cross the site or run alongside its boundaries and need to be maintained to service other developments and the wider area.
- There is a small area in the north west that is identified as being in a Flood Zone 3.
- There are a number of Public Rights of Way and Bridleways that cross the site and these need to be considered within the development proposals to maintain the connectivity that the area currently benefits from.
- There are a number of existing watercourse and ponds within the development site and any loss or realignment needs to be sensitively addressed.
- The existing hedgerows and trees across the site, as well as the existing farm buildings across the site have the ability to have environmental and ecological benefits and appropriate mitigation measures and features need to be designed into the scheme to appropriately offset any impact.

4. SCHEME EVOLUTION

4.1 Introduction

This section sets out how the Hinckley National Rail Freight Interchange scheme has evolved from its initial identification through scheme development to public consultation.

4.2 Site Identification

Tritax Symmetry Limited has extensive experience in developing logistics schemes in the Midlands and North of England. Working with strategic rail adviser Baker Rose Consulting it was established that there remains a significant need for rail-related logistics development in addition to the East Midlands Gateway development close to East Midlands Airport and the M1 motorway.

The Applicant recognised that an SRFI on the Felixstowe to Nuneaton, strategic rail route ideally within the South West Leicestershire Growth Area (GA5), with good access to the M69 and M1 motorways and the A5 corridor, would provide optimal multi-modal connectivity and a nodal point for the expressed need for future growth.

Network Rail is implementing a phased series of improvements to this route, which will increase the maximum train length from 600m, the standard intermodal train length, to 775m. The railway between Felixstowe and Nuneaton was upgraded in 2014 to the 'W10 gauge', enabling containers up to 2.9m high to be carried on standard flat wagons from Felixstowe to the Midlands directly. This means that intermodal trains can travel to the region from all the UK deep sea ports and every major city in Britain with standard wagons carrying 2.9 metre high containers.

Paragraphs 4.83 – 4.89 of the National Networks NPS provide specific policy guidance on the assessment principles for SRFIs, including their function, locational requirements and scale and design.

Based upon the above criteria, most of the trackside sites that were reviewed are in areas at high risk of flooding, rendering them unsuitable for development. Only the HNRFI site presented the opportunity to avoid land in Flood Zones 3 and 2.

Aside from its low flood risk, the HNRFI site was considered to offer an optimum balance of advantages, including:

- An ample area of open level land;
- Sufficient at-grade rail frontage for rail connections to the main line, and the ability to accommodate trains up to 775m in length;
- Include an 'in-out' rail connection to a line accessible from a range of the UK's leading freight ports, with potential for future electrification;
- Would be capable of handling over four trains per day;
- Offer ample space for an intermodal terminal for rail handling and storage;
- Can include a number of rail connected or rail accessible buildings with all building users having access to the intermodal rail terminal.
- The potential for direct road access to the strategic highway network from M69 Junction 2, with scope to add southbound slips to the Junction;
- Separation from existing residential settlements sufficient to avoid significant adverse effects on noise and visual amenity after mitigation;
- A comparatively low level of environmental constraint, with no designated features of landscape. ecological or cultural heritage interest inside the site;
- A location within the LLEP's designated South-West Leicestershire Growth Area;

4. SCHEME EVOLUTION

4.3 Scheme Development

The development of the proposal for the HNRFI illustrative masterplan commenced in 2015 but it wasn't until the beginning of 2018 that the first fully formulated plan was produced in preparation for the first round of consultation in Autumn 2018.

Subsequent to that, the illustrative masterplan went through a further iteration prior to the first consultation, then in response to the feedback from the initial public consultation a further iteration was produced which was then reviewed following a detailed appraisal to the point where we now have the latest iteration in readiness for the next public consultation in January 2022.

4.3.1 Illustrative Masterplan A

The preliminary version of the master plan for the Main HNRFI Site, was produced at the beginning of 2018. A strong influence on the general layout is the inherently rectilinear shape of B8 buildings and their curtilages. The layout in Figure 5 features the following main elements.

- Railway sidings and a Railport for the unloading and loading of freight containers located immediately alongside the existing railway.
- Road access directly from M69 Junction 2, which would be upgraded with new slip roads on and off the motorway to the south of the junction.
- B8 Use Class, for Warehousing and Storage, buildings, up to a maximum height of 23m above ground level and with a gross floorspace of 850,000sqm including c. 225,000sqm of mezzanine floorspace, giving a gross built footprint of c. 625,000sqm, are arranged in rows between the railway and the motorway and with ancillary car and lorry parking and boundary landscape works and planting. The illustrative masterplan includes two very large buildings and one smaller building adjacent to the Railport.
- A network of internal roads providing access to all areas of the site, in corridors with further landscape works and planting.
- Structural landscape works and planting around most of the site boundary, incorporating balancing ponds and drainage swales. An area of land at the south-western extremity of the site, adjacent to Burbage Common and Wood, is intended for public access for informal recreation.
- The draft DCO Order Limits, shown and also in subsequent illustrative masterplan iterations in this section by a red line, include land to allow for construction lay-down and access diversions.

Fig 6. Illustrative Masterplan A

4. SCHEME EVOLUTION

4.3.2 Illustrative Masterplan B

Figure 6 shows the subsequent iteration of the master plan that was used for an informal first round of public consultation on the HNRFI Project in autumn 2018. The plan is similar to Figure 5 save for the redesign of the proposed open space amenity area and the adjacent building layout at the south-western corner of the main site. In this option the footprint of buildings increased from c. 625,000sqm to c. 640,000sqm

Fig 7. Illustrative Masterplan B

4.3.3 Illustrative Masterplan C

The evaluation of development layout options continued whilst the autumn 2018 public consultation was in progress. Figure 7 shows an option in which buildings are arranged end-on to the Railport in order to give more occupiers a direct frontage. This option has a built footprint of c. 625,000sqm. The indicative landscape arrangement for the amenity area in the south-western part of the site is also amended, with the bund and tree screen placed alongside the closest building in order to achieve a better transition between the developed area to the north-east and the rural area to the south and west.

Fig 8. Illustrative Masterplan C

4. SCHEME EVOLUTION

4.3.4 Illustrative Masterplans D & E

In the light of the feedback received from the first round of informal public consultation in autumn 2018, the Applicant considered various revisions to the master plan for the HNRFI Project. The resulting illustrative master plan is shown in Figures 8 & 9. Comparison with the 2018 master plan in Figure 7 reveals how the master plan evolved in response to consultation feedback and continuing environmental impact assessment. The changes can be summarised as follows.

Feedback: *concerns over the degree to which the development offers rail access and about the effects of noise from the railport on the amenity of residential properties beyond the railway, in Elmesthorpe and to the south-west of the village.*

Response: The Applicant considered the option of relocating the Railport to the centre of the HNRFI site, providing enhanced rail connectivity for HNRFI occupiers and increasing the distance between the Railport and residential properties beyond the railway to the north-west. It was considered that the logistics buildings on either side of a centrally-placed Railport might help to contain the noise from freight handling operations.

Further noise attenuation was proposed in the landscape buffer across the north-eastern edge of the site, adjacent to Elmesthorpe. This included a tall acoustic fence alongside the curved section of railway between the lineside sidings and the railport, designed to contain any 'wheel squeal' from freight trains moving between the two.

Feedback: *concern over the loss of recreational equestrian, cycle and walking routes that cross the Main HNRFI Site.*

Response: relocation of the Railport to the centre of the site facilitated the provision of a recreational route between Burbage Common to the south-west of the HNRFI and Burbage Common Road near Elmesthorpe to the north-east. This recreational route was set within the landscape buffer along the railside edge of the site, with underpasses providing safe access beneath the road at the Burbage Common Road railway bridge, and beneath the proposed railway line in the northern corner of the Main HNRFI Site.

A further recreational access route was proposed in the landscape corridor between a point north of Freeholt Wood to an existing footbridge over the M69 motorway, c. 700m north of M69 Junction 2.

Feedback: *the proposed recreational open space in the south-western corner of the site would effectively be cut off from Burbage Wood by the proposed landscape buffer around the HNRFI site.*

Response: the landscape buffer was realigned to be follow the proposed edge of the built development, promoting a greater sense of connectivity between Burbage Wood and the proposed recreational open space. The amenity area, now referred to as the Burbage Common Expansion, was enlarged. In addition, a new community hall was proposed on a site to the east of the recreational open space.

Feedback: *concern that the HNRFI development, in conjunction with the proposed upgrade to M69 Junction 2, would attract unacceptable volumes of additional road traffic on the local road network, including the B4669 Sapcote Road / Hinckley Road on both sides of M69 Junction 2, which passes through Sapcote, and the B581 Broughton Road through Stoney Stanton, as well as on various routes further afield.*

Response: Informed by initial rounds of road traffic modelling, the Applicant developed options for relief roads extending westward from the HNRFI site to the B4668 / A47 Leicester Road, by-passing Burbage and Hinckley, and eastwards towards the B4114 Coventry Road, by-passing Sapcote and Stoney Stanton. These options were the focus of a further round of informal public consultation in summer 2019.

4. SCHEME EVOLUTION

4.3.4 Illustrative Masterplans D & E cont.

Fig 9. Illustrative Masterplan D

The immediate effect of the inclusion of these road links in the project was the redesign and realignment of the main internal access road across the southern part of the site. Whereas this main internal access road was designed in earlier iterations of the master plan as an internal service road only, the addition of the eastern and western road links would open the road to general traffic, necessitating a redesign. Figure 8 shows the status of the master plan in May 2019 and Figure 9 shows the master plan as it had evolved by November of that year. Both versions show a built footprint of c. 604,000sqm, a lower total accounted for principally by a reduction in the number and size of buildings proposed to the south of the access road across the southern part of the site.

Fig 10. Illustrative Masterplan E

4. SCHEME EVOLUTION

4.3.5 Illustrative Masterplan F

Figure 10 shows the master plan as presented for the purpose of the current public consultation, with the detailed proposals described in section 1 of this DAS. In respect of how the master plan has evolved, noteworthy features include the following.

i. The Railport is returned to its original location alongside the Leicester to Hinckley railway, with a rail chord extending across the northern arc of the HNRFI site. This change has been made for the following reasons.

- Locating the Railport in the central area of the site was physically difficult to achieve due to the gradient across the site. The layout was constrained in respect of the provision of road access to buildings between the Railport and the railway, and individual buildings could not be rail-served. Access roads would have to pass between buildings and railways, negating the benefits of railside locations.

- Access by rail to a centrally located Railport would require two parallel railway lines with a tight semi-circular radius at the northern end of the HNRFI. When rolling stock is hauled around a tight circle of track the differential rotation of the inner and outer wheels can cause sticking and sliding that results in 'wheel squeal' and a higher potential to derail wagons. The Applicant reviewed methods available to reduce or avoid wheel squeal. Common remedies include the use of rubber dampeners or wheel lubrication, as well as the erection of tall acoustic fences on the outside of the curve, before it was concluded that wheel squeal is simply best avoided if possible. A northern siding is retained in the latest master plan but with a better layout and a much-reduced length of curve as part of a 'head shunt', which permits rail access into buildings.

- The consolidation of the main freight handing area in rail sidings parallel to the railway has the advantage of allowing trains to enter and leave the site in a single in or out movement, whether heading in the direction of Nuneaton or Leicester. In contrast, with the Railport located in the centre of the Site, trains arriving from or departing to the direction of Leicester would need to make a double movement (e.g. a forward movement southbound into a holding siding parallel to the main railway and then a reverse movement backwards into the Railport, and vice versa), an inherently inefficient arrangement.

ii). The latest development layout seeks to make the most efficient use of land inside the HNRFI. The indicative layout has an internal built footprint of 650,000 m^2 with buildings permissible under the proposed DCO parameters to a maximum height of 33m to ridge and 31m to eaves, as measured from ground level, an increase from the maximum heights envisaged previously. This height increase reflects discussions with potential occupiers. Three buildings are shown indicatively on the Railport frontage, again in response to enquiries from potential occupiers.

iii). The main access road across the southern part of the main site features three roundabouts to assist the safe integration of goods traffic with general east-west traffic using the proposed link road between M69 junction 2 and the A47 Leicester Road.

iv). No B8 buildings are proposed to the south-west of the main access road. The area features a site hub, a lorry park with welfare facilities and a filling station, an energy centre and a storage yard for empty freight containers but is otherwise proposed as an amenity open space.

v). With the core of the main HNRFI Site dedicated to B8 buildings, an amenity route between Elmesthorpe and Burbage Common is proposed along the eastern edge the main HNRFI Site, next to the M69 motorway. This would incorporate provision for pedestrians, cyclists and horse riders. The amenity route would cross the main access road from M69 Junction 2 by means of a signalised 'Pegasus crossing' and would connect to the amenity open space along the south-western side of the HNRFI, from where access can be gained to Burbage Common via Smithy Lane and an existing underpass beneath the railway.

vi). Noise attenuation barriers have been introduced around much of the southern, western and northern edges of the Main HNRFI Site to contain operational noise.

vii) The A47 link road is developed in its detail, crossing the railway via a new bridge and connecting with the Leicester Road in a new roundabout junction adjacent to the cricket and football grounds.

viii) Wider off-site highway network improvements have been considered and included within the Main Order Limits, and these are illustrated in Section 5 of this DAS.

ix) The proposals for a by-pass to the eastern villages of Sapcote and Stoney Stanton have been removed, though there are a number of wider off-site highway network improvements, as noted above, and contained within the Main Order Limits.

4. SCHEME EVOLUTION

4.3.5 Illustrative Masterplan F cont.

Schedule of Accommodation
All areas are gross internal

Unit	Distribution	Offices	Total	Car Parking	Lorry Parking	Height
01	64,567 sq.m.	2,787 sq.m.	67,354 sq.m.	561 no. spaces	117 no. spaces	Up to 27m
02	25,316 sq.m.	1,208 sq.m.	26,524 sq.m.	221 no. spaces	45 no. spaces	Up to 27m
03	25,548 sq.m.	1,115 sq.m.	26,663 sq.m.	222 no. spaces	53 no. spaces	Up to 27m
04	44,825 sq.m.	2,090 sq.m.	46,915 sq.m.	391 no. spaces	63 no. spaces	Up to 27m
05	32,702 sq.m.	1,672 sq.m.	34,374 sq.m.	286 no. spaces	51 no. spaces	Up to 33m
06	130,992 sq.m.	4,645 sq.m.	135,637 sq.m.	1130 no. spaces	191 no. spaces	Up to 27m
07	95,225 sq.m.	2,369 sq.m.	97,594 sq.m.	813 no. spaces	76 no. spaces	Up to 27m
08	76,551 sq.m.	2,369 sq.m.	78,920 sq.m.	658 no spaces	63 no. spaces	Up to 30m
09	128,948 sq.m.	3,252 sq.m.	132,200 sq.m.	1102 no. spaces	180 no. spaces	Up to 27m
		Total	646,182 sq.m.	5,384 no. spaces	839 no. spaces	
		Railport	465 sq.m.	99 no. spaces		
		Lorry Park & Drivers Welfare	465 sq.m.	11 no. spaces	104 no. spaces	
		Amenity & security Offices	465 sq.m.	18 no. spaces		
		Total Development	647,575 sq.m.	5,408 no. spaces	943 no. spaces	

Key

- New M69 Slip Lanes
- A47 Link Road
- A47 Link Bridge Crossing
- Estate Roads
- Railport - Sidings
- Railport - Container Storage
- Lorry Park, Energy Services & Drivers Welfare
- Site Hub
- Building Footprints
- External Yards
- Parking Areas
- Water Features and Ponds
- New Bridleway within main HNRFI site
- New landscaping within main HNRFI site
- Well Being Zone
- Existing surrounding landscaping and farmland
- Existing woodland
- Existing alignment of public footpaths and bridleways (orange)
- Proposed alignment of public footpaths and bridleways (blue)

Fig 11. Illustrative Masterplan F

5. DEVELOPMENT PARAMETERS

5.1 Introduction

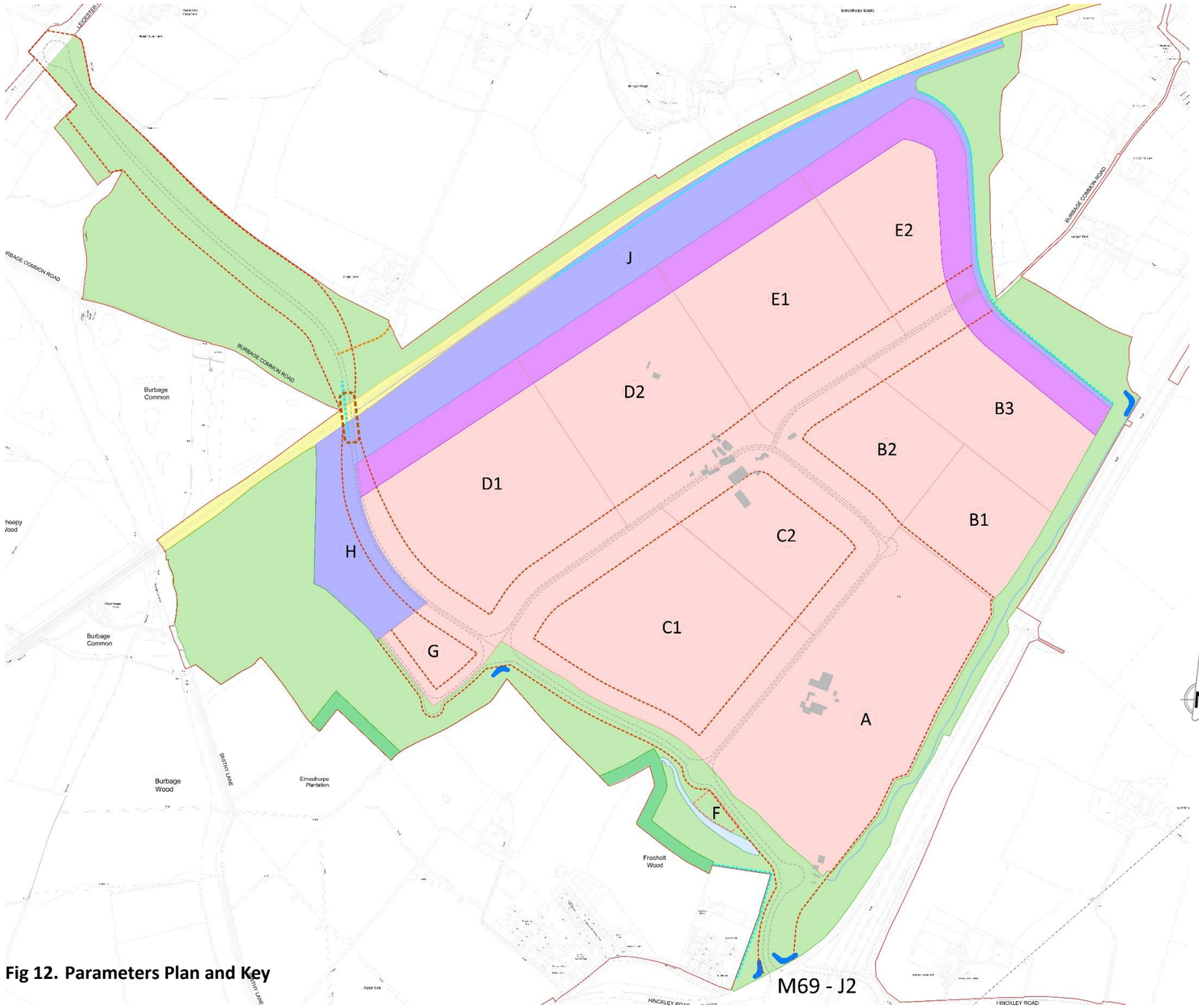
The requirements for an SRFI have been described in the previous sections of this DAS and the illustrative masterplan iterations have been prepared on the basis of those criteria.

As the warehousing and logistics markets are a constantly evolving sector in response to both occupier needs and market demands, it is key that the development retains a flexible approach to ensure that it can respond to any enquires as they arise.

To facilitate this it has been decided to apply a 'Parameters Approach' to the HNRFI scheme whereby the development is described in terms of well-defined parameters against which future development can be assessed, but provide the necessary flexibility required by the Applicant and occupiers.

5. DEVELOPMENT PARAMETERS

5.2 The Parameters Plan – Key Notes



Key

- Open land / landscaping, including bunding, attenuation ponds, public footpaths and bridleways and A47 Link Road and estate road infrastructure
- Historic woodland protection zone
- Watercourse
- Existing rail corridor
- Rail freight interchange including A47 Link Road and bridge infrastructure
- Rail corridor within development zones
- New bridge over rail line
- Development zone for site hub
- Line of A47 Link Road and estate roads
- Deviation Potential to estate roads. The boundaries of zones through which a limit of deviation runs will change depending on the final alignment of the infrastructure within the limit of deviation
- Noise attenuation (acoustic fencing or landscape screening).
- Existing Buildings to be demolished.
- Development Signage Locations
- Rerouting of existing linkage from Bridge Farm to new highway infrastructure
- *x* Development Zones

NOTE: Development Zones include A47 Link Road and estate road infrastructure and elements pertaining to individual development plots including buildings, hardstandings, parking, energy services, landscaping, bunding and storm water attenuation.

Fig 12. Parameters Plan and Key

5. DEVELOPMENT PARAMETERS

5.3 The Parameters Plan – Zonal Parameters

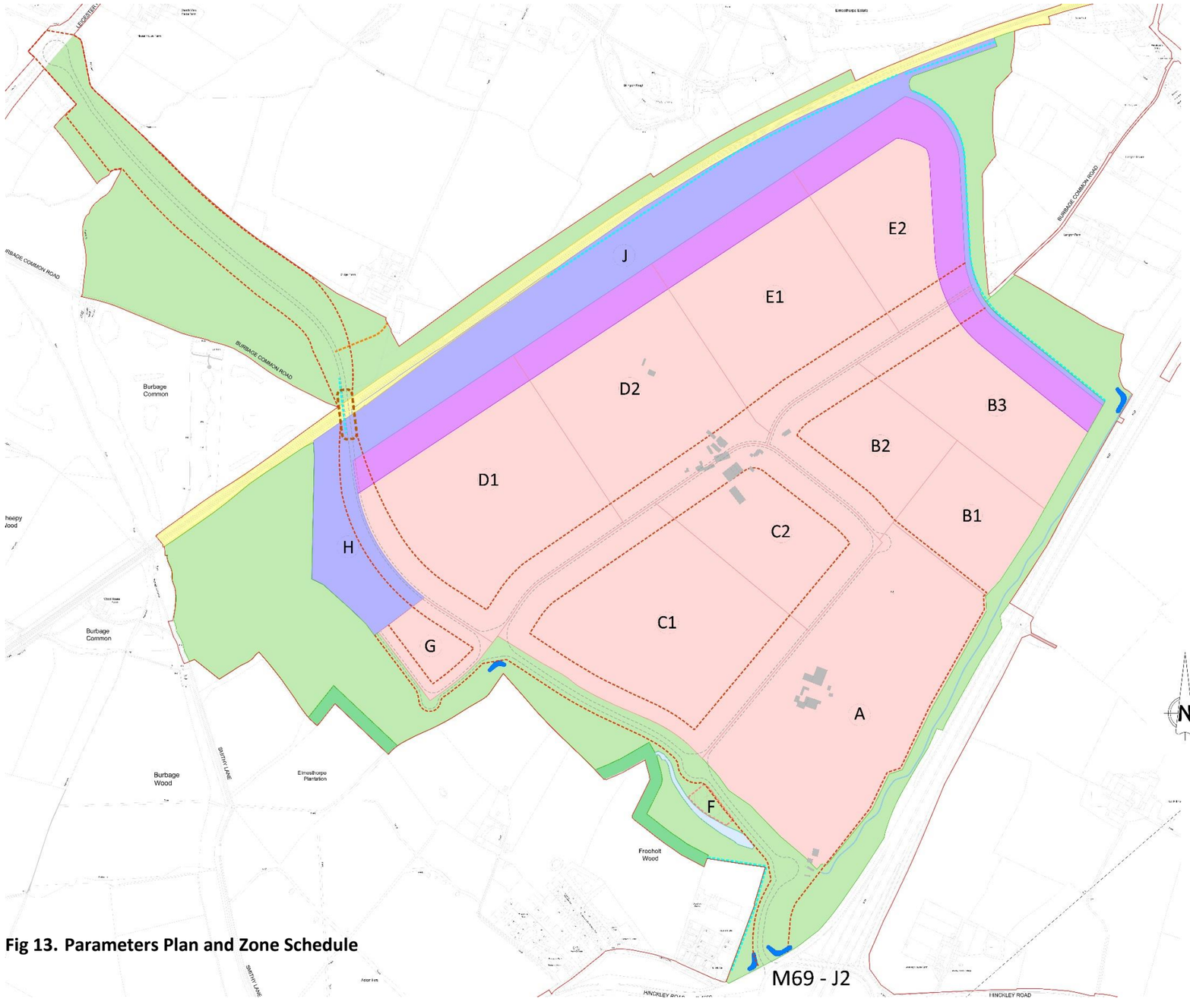


Fig 13. Parameters Plan and Zone Schedule

Schedule of Parameters for Development Zones			
Zone	Number of Units	Maximum development floor space per Zone (m²)	Maximum building height measured to roof ridge / highest point in metres above Ordnance Datum
A	1 to 6 units	105,000 sq.m.	124.15m
B	1 to 5 units	115,000 sq.m.	B1 120.65m B2 126.65m B3 120.65m
C	1 to 6 units	140,000 sq.m.	C1 124.15m C2 127.15m
D	1 to 4 units	184,000 sq.m.	D1 124.15m D2 127.15m
E	1 to 3 units	137,000 sq.m.	E1 120.65m E2 117.65m
F	1 to 2 units	500 sq.m.	111.50m
G	1 to 2 units Energy Services	500 sq.m.	107.15m 112.15m
H	1 to 2 units Yard	750 sq.m.	107.15m 119.15m
J	1 to 2 units Yard Gantry Cranes	500 sq.m.	106.50m 112.50m 123.50m
Total maximum floor space across the development*1		650,000 sq.m.	

*1 This total floor space is the maximum floor space (excluding mezzanine space) that will be developed across the site notwithstanding that the maximum floor space stated for each Zone combined would exceed this figure i.e. it is the overall floor space cap for each zone excluding mezzanine floor space.

5. DEVELOPMENT PARAMETERS

5.4.1 Development Zones A – E

Based upon the parameters plan, the purpose of Zones A – E is to locate up to 850,000 m^2 (gross internal area or GIA) of warehousing and ancillary buildings with a total footprint of up to 650,000 m^2 and up to 200,000 m^2 of mezzanine floorspace. These buildings might incorporate ancillary data centres to support the requirements of HNRFI occupiers and operators. They would also incorporate roof-mounted photovoltaic arrays providing direct electricity supply to the building or exporting power to battery storage in the energy centre.

Within zones B3,D1,D2,E1 and E2, an area has been identified for the provision of a direct rail connection.

As well as the highway infrastructure corridors, all the development zones also include elements pertaining to the individual development plots including buildings, hardstandings, parking, energy services, landscaping, bunding and storm water attenuation.

5.4.2 Development Zone F

Zone F has been designated for a site hub building, providing office and meeting space for use in connection with the management of the HNRFI and ancillary car parking.

5.4.3 Development Zone G

South of the proposed A47 link road corridor, zone G is for the provision of an energy centre incorporating an electricity substation connected to the local electricity distribution network and a gas-fired combined heat and power plant with an electrical generation capacity of up to 10 megawatts (MW), supported by 20 MW standby generation capacity and 20MW battery capacity to provide electrical supply resilience. Total electricity generation capacity would not exceed 50 MW. In addition, this zone is also for a lorry park with welfare facilities for drivers and a fuel filling station.

5.4.4 Development Zone H & J

These zones are for the new rail infrastructure including points off the existing Felixstowe to Nuneaton railway providing access to a series of parallel sidings at the HNRFI, in which trains would be unloaded, marshalled and loaded. In addition, an intermodal freight terminal or 'Railport' capable of accommodating up to 16 trains up to 775m in length per day, with hard-surfaced areas for container storage and HGV parking and cranes for the loading and unloading of shipping containers from trains and lorries would also be located. Zone H will be accessed off an estate road via Zone G and the main spine road roundabout adjacent to Zone C and D. Zone H will include the formal secure access to the Rail port, an empty container storage yard, and ancillary administration buildings.

5.4.5 Highway Infrastructure

The notional alignment of the main highway infrastructure, including the A47 link road and the main HNRFI site estate roads has been illustrated together with a limit of deviation to maintain the flexibility of the scheme.

5.4.6 Heights

The parameters plan also stipulates the maximum height Above Ordnance Datum (A.O.D) of any building or structure contained within that zone.

5.4.7 Green Infrastructure

To the perimeter of the main HNRFI site and west of the railway, the parameters plan illustrates the zone for dedicated green infrastructure that includes open land / landscaping, bunding, attenuation ponds, public footpaths and bridleways as well as the main highway infrastructure corridors.

5.4.8 Water Courses

Identified locations for new watercourses and ponds have been illustrated to the south of the A47 link road and along the eastern boundary within the main HNRFI site.

5.4.9 New Bridge

The location for a new bridge to carry the A47 link road over the railway is identified on the Parameters Plan within the Order Limits and to the north of Burbage Common and south of the existing bridge that is to be demolished as part of the works.

5.4.10 Acoustic Attenuation

Locations have been identified around the main HNRFI site for acoustic attenuation either in the form of acoustic fencing or bunding up to a maximum of 6m in height.

5.4.11 Signage Locations

Locations either side of the new A47 link, at the southern entrance to the development together with a location in the north east corner of the main HNRFI site have been identified for development signage.

6. DEVELOPMENT FRAMEWORK

6.1 Introduction

The framework principles for the development have been framed by the Parameters Plan and illustrated through the illustrative Masterplan. This section expands upon the detail of the key components.

6.2 Uses

Upon being granted consent to the DCO application for an NSIP development and commencement of works on site, the current activities on the site would cease and it would then become the location for a Strategic Rail Freight Interchange with associated development.

The site would then accommodate B8 warehouse and storage facilities that are both rail connected and rail served with the Railport being at the centre of these activites.

The facility would then operate 24 hours per day, 7 days per week to maximise the flexibility that the occupiers require.

6.3 Floorspace

The Parameters Plan sets out the limitations on floor space in total for the development as well as the maximum floor space within each zone. In addition it also prescribes the number of B8 facilities that each zone could accommodate. See Fig 12.

The total floor space for each zone has been considered based on the illustrative masterplan to ensure that an appropriate amount of land is set aside for the ancillary functions of each building, including the highway infrastructure, general circulation and landscaping.

Whilst buildings could be accommodated anywhere within the development zones, the illustrative masterplan provides an indication of how they could be sited.

6.4 Heights, Levels, Scale and Massing

Whilst it is inevitable that an SRFI will necessitate buildings of a significant scale and mass to meet the requirements of the logistics sector and market demand, the parameters have been developed to reflect this demand whilst also acknowledging the restrictions that the local and wider environment place upon the development and to ensure that the development sits well within the wider landscape.

The maximum heights of the buildings have been calculated as ranging from 24m to 33m to the apex of the roofs or any other structure, and the Parameters Plan identifies the maximum A.O.D. levels per zone that this generates. There is a step change in the levels noted, going 24m, 27m, 30m and 33m.

The highest buildings (30m and 33m) have been located in the centre of the development where they would have the least impact with the lower heights around the perimeter of the site.

Whilst these levels identify the maximum height of any building or structure to ensure that the development can appeal to the widest range of occupiers, new development whether speculatively built by the Applicant or responding directly to an occupier enquiry (build to suit) will always be considered on their merits and appropriateness based on knowledge of the sector to achieve the optimum design.

Heights have also been prescribed for the Railport and considered on the basis that the loading and the unloading of the trains and the facilitating of the container storage will be undertaken by gantry cranes that have a maximum height of 28m.

6. DEVELOPMENT FRAMEWORK

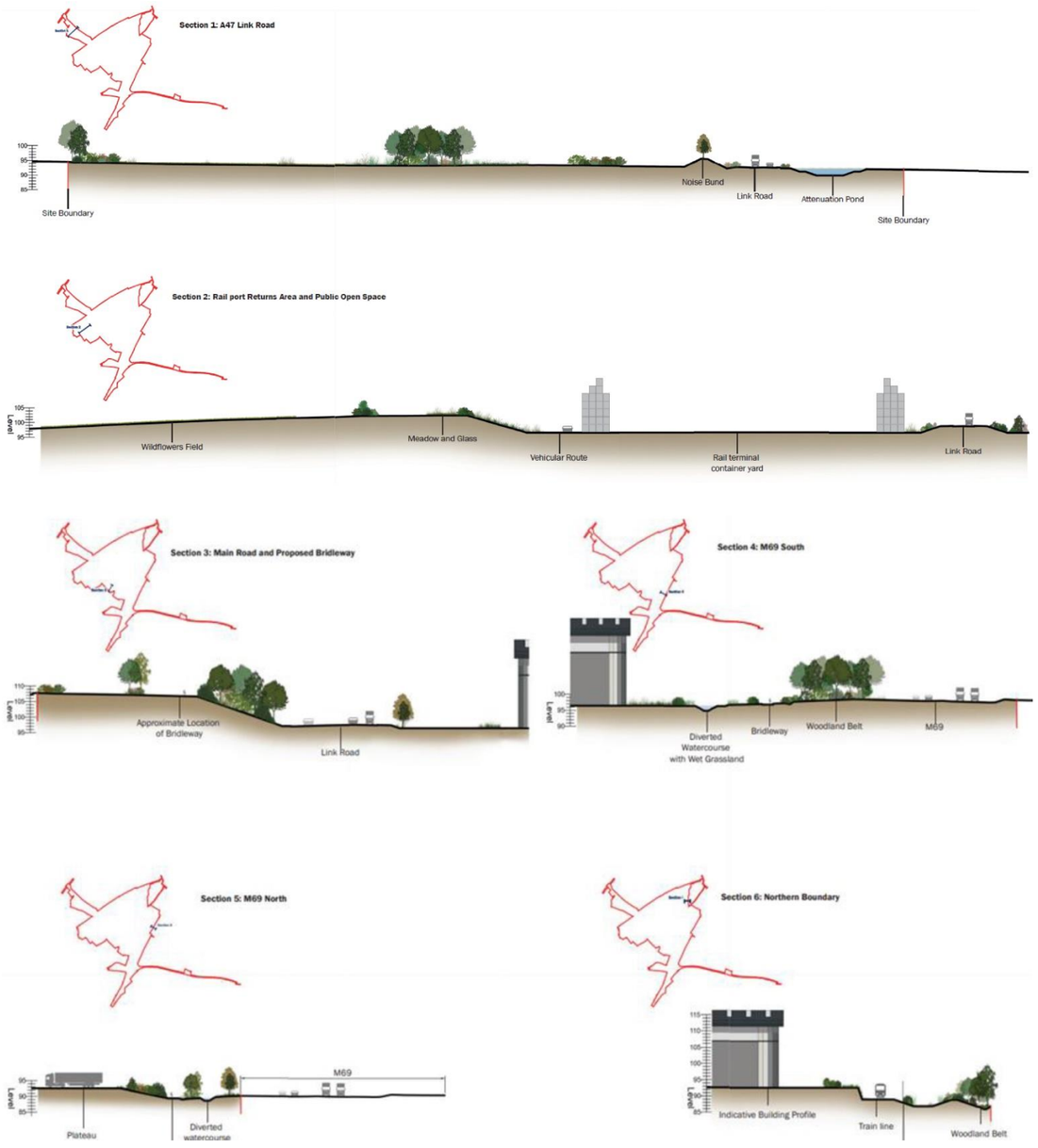


Fig 14. Site Sections through Site Edges

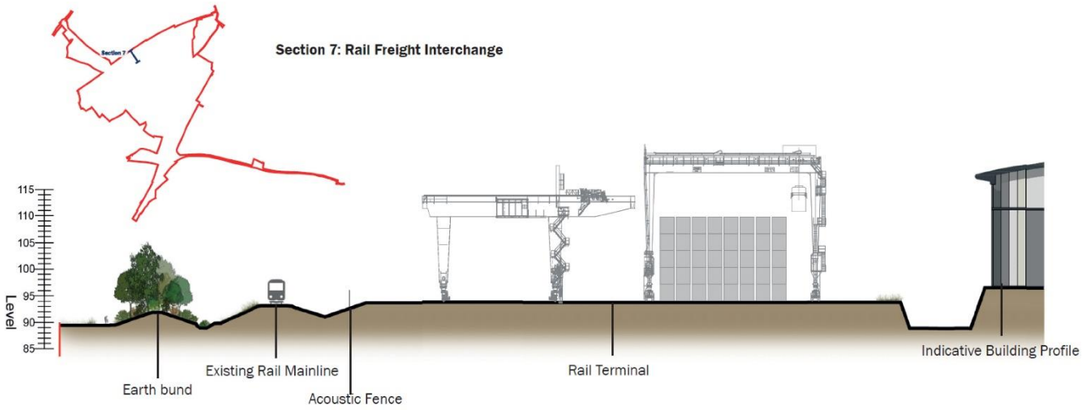


Fig 15. Site Sections through Site Edges

6. DEVELOPMENT FRAMEWORK

6.5 Landscape

Due to the gently undulating nature of the local landscape, distant views can be limited by variations in topography, mature vegetation and built form. Vegetation cover, variations in topography and local built development combine to form 'layers' of screening or filtering, particularly as distance from the site increases and the relative scale of the Proposed Development decreases.

As Figure 13 demonstrates, the visual influence of the Main HNRFI Site will unsurprisingly increase with the Proposed Development. The Landscape and Visual Impact Assessment (LVIA) process has evaluated the extent of the increase in visual influence as well as the magnitude of any visual effects over the duration of the project's evolution.

Initial site visits were conducted in 2016 and have continued through to 2021 as the scheme has evolved and consultations have been undertaken, by where additional photo viewpoints have been agreed. The main determinants/observations of visibility across the area are:

- Open views of the Main HNRFI Site would be limited to those from roads and PRoW as they pass through it.
- North: Views from the north are limited to the B581 Station Road in Elmesthorpe and built development along it. Beyond, a combination of gently undulating topography, mature vegetation and built form generally combines to limit inter-visibility;
- East: Inter-visibility with the Main HNRFI Site is limited due to gently undulating topography, coupled with mature vegetation that enclose small to medium field parcels. These combine to screen views from the east, with views primarily limited to the B4669 (Hinckley Road) and the PRoW network within 1km. Further east there will be more distant and filtered areas of visibility between Stoney Stanton and Fields Farm and also at the elevated geographical outlier of Croft Hill;
- South: Few views of the Main HNRFI Site would be available from the south due to the intervening presence of Aston Firs, Burbage Wood and Freeholt Wood. Views will be primarily limited to the M69 Motorway as it approaches the Main HNRFI Site and passes the Proposed Development. There may be areas of limited visibility from isolated, elevated locations such as at Lychgate Lane bridge, which passes over the M69 c.260m south, Footpath U63/1 just east of Burbage and distant elevated locations such as those at High Cross c.4.5km to the south and the B578 Lutterworth Road c.3km to the south; and
- West: Views are generally limited by mature vegetation within and on the periphery of Burbage Common and Woods Country Park. Similarly, mature vegetation forming field boundaries and alongside roads limits visibility from this direction to Burbage Common Road and the PRoW network within 1km to the west. Views would also be possible from elevated positions at the edge of the Settlement of Barwell to the north-west.

Figure 15 includes the locations of 49 representative views that have been identified in the ZTV of the Proposed Parameters of the Main HNRFI Site and agreed through consultation. These views are at locations where there are likely to be sensitive visual receptors, including receptors on PRoW and at residential properties.

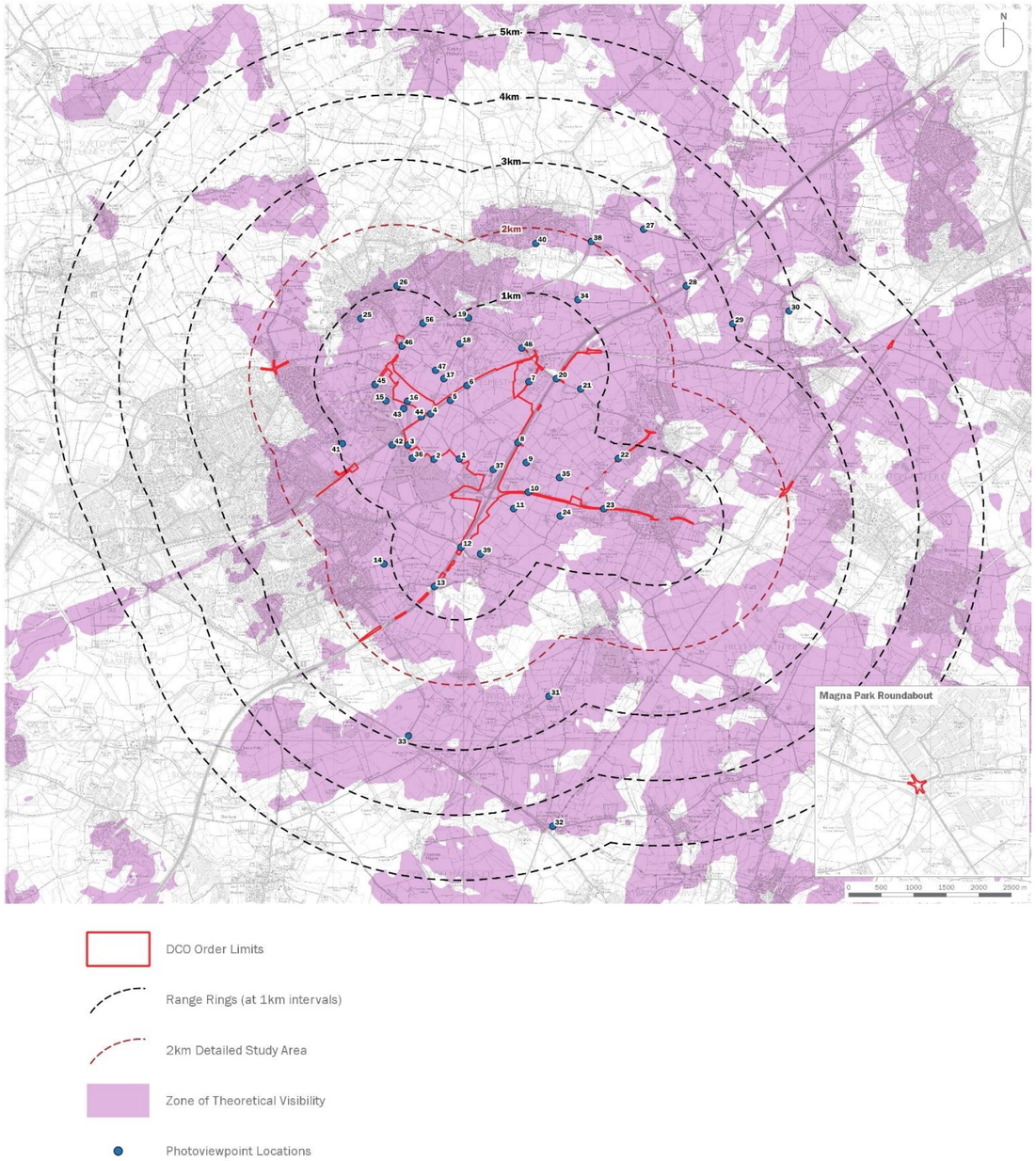


Fig 16. Visual Influence of the Main HNRFI Site

6. DEVELOPMENT FRAMEWORK

6.5 Landscape cont.

The Main HNRFI Site currently comprises as a series of small to medium scale regular agricultural fields enclosed by a network of hedgerows and occasional hedgerow trees and is influenced across its eastern boundary by the M69 and west-to-northern boundary by the Hinckley to Leicester railway line.

Since the introduction of the A47 Link Road which extends north-west of the Main HNRFI Site to the B4668, the land south of the route itself presented an opportunity to provide a large area of Public Open Space (POS) and safeguard the interface and visual amenity of Burbage Common and Woods Country Park to the south. This area will see a conversion of arable land to a rich, biodiverse area, providing a range of habitats, whilst also providing an attractive and valuable recreational asset with links to the Country Park to the south.

Despite the unavoidable loss of some enclosed farmland, the current condition and key characteristics of the landscape have been considered throughout the design of the Proposed Development and integrated into the layout where possible, such as the nearby character of the Burbage Common and Woods Country Park which has contributed to the design of the area south of the A47 Link and the western extent of the Main HNRFI Site.

As such, an illustrative landscape strategy has been conceptualised, identifying constraints and opportunities to protect and enhance green infrastructure across the site, and is illustrated in Figure 14. Key opportunities to improve the green infrastructure network include:

- Provision of high quality public open space for formal and informal use, whilst also contributing to green networks and enhancing habitat connectivity through the provision of a landscaped corridor along the eastern edge of the Main HNRFI Site, the land south of the A47 Link and the open space located in the western end of the Main HNRFI Site; and

- In turn this avoids development which could impact upon the valued semi-natural habitats at Burbage Common and semi-natural features within the agricultural landscape including ditches as described within the Elmesthorpe Floodplain Landscape Character Area guidelines, by instead safeguarding land adjacent to it for similar purposes;

- Enhancement of biodiversity corridors particularly along the edges of the Main HNRFI Site, including along the railway line, M69, Burbage Common Road and the proposed A47 Link, seeking opportunities to extend these areas where feasible;

- Retention of existing ecologically important hedgerows where possible, particularly where these relate to early enclosure historic field boundaries;

- Visual connections between new public open space and mature landscape features in the wider context, such as the mature and ancient woodlands to the south of the Main HNRFI Site Development;

- The provision of a retained, albeit realigned and upgraded on-site PRoW network across the Main HNRFI Site (Figure 11.14), offering recreational value and a community resource, providing onwards connections to recreational destinations such as Burbage Common and the Leicestershire Round trail, consistent with guidelines set out within the Aston Flamville and Elmesthorpe Floodplain LCA guidelines; and

- In consideration of the wetland habitats located across the Elmesthorpe Floodplain LCA, multifunctional SuDS will be designed into and throughout the Proposed Development (not just confined to areas of public open space) to address any changes in hydrology, whilst also providing ecological benefit.

- Delivery of a net gain in tree planting across the site to address climate change; and

- Development of a sensitive lighting strategy which follows key parameters designed to limit light spill such as maximum heights, directional units and specific light sources.

As part of the wider Green Instructure, public open spaces, both formal and informal, will be designed to provide high-quality and traffic free green space, which satisfies a number of objectives, including:

- Provision of an on-site PRoW network which maintains connectivity across the Main HNRFI Site and A47 Link Road including the creation of new routes;

- Public open space for formal and informal use, whilst also contributing to green networks and enhancing habitat connectivity through the provision of a landscaped corridor along the eastern edge of the Main HNRFI Site, the land south of the A47 Link Road and the open space located in the western end of the Main HNRFI Site; and

- Conserve hedgerow trees within the landscape by encouraging natural establishment and planting of new hedgerow trees. Species chosen for planting should reflect those present within the fields immediately surrounding to enhance local distinctiveness within the character area .

6. DEVELOPMENT FRAMEWORK

6.5 Landscape cont.

Fig 17. Illustrative Landscape Strategy

6. DEVELOPMENT FRAMEWORK

6.5 Public Rights of Way

Throughout the design evolution of the Project, the routing and rerouting of PRoW across the Main HNRFI Site has been explored and consulted with Leicestershire County Council (LCC) in which a Public Rights of Way Strategy (Figure 17) has been developed.

6.5.1 Provision for Walkers

The local network of footpaths are key assets for existing and future users in the area. Together, these present a number of recreational opportunities, including access to Burbage Common and Woods Country Park and the wider countryside to the north, south, east and west.

Development of the Main HNRFI Site and A47 Link Road presents an opportunity to enhance access to Burbage Common and Wood Country Park, both in terms of improving existing access and through the creation of additional access points.

Two footpath routes (Footpaths V23/1 and U50/3) cross the Hinckley to Leicester railway line via unprotected crossings. It is proposed to close these two crossings for safety purposes and instead provide a link southward from Footpath U50/4 along the northern edge of the railway, passing Footpath V23/1 and linking with Bridleway U52/9 and Footpath U52/8 which provide a safer route via a new bridge over the railway.

The PRoW Appraisal and Strategy has identified that the majority of footpaths within the Main HNRFI Site are only lightly used and there is considered to be capacity to support new users on the existing network. Whilst some re-routing will be required as part of the Proposed Development, access to the existing network would be enhanced through the creation of new linkages, improved marking of routes, removal of obstructions, appropriate vegetation management and the removal of gates/stiles as part of an overall enhancement programme.

Shared paths will be provided adjacent to all roads through the site, allowing continued pedestrian access north, east, south and west through the site, whilst new bridleway provision will also provide access for walkers.

6.5.2 Provision for Cyclists

There are opportunities to improve cycle provision on-site via alternative, traffic-free or improved routes. These include a grade-separated path adjacent to all traffic routes, thereby providing a north-east to west and south connectivity and a valuable link between Burbage Common, Hinckley and Burbage to Elmesthorpe (see Figure 17).

6.5.3 Provision for Horseriders

The baseline assessment has identified limited equestrian use of the existing bridleway network within the study area.

No equestrian facilities are located on-site, however it is understood that there is commuting and access from surrounding liveries and stables towards the north of Burbage Common Road with Bridleway U52/9 and Burbage Common to the west of the Main HNRFI Site. There are currently no suitable connections to the Bridleway network within or to the east of the Main HNRFI Site. There is therefore opportunity to create a new traffic free link, routing a bridleway around the eastern edge of the Main HNRFI Site to connect with Bridleway V29.

Whilst part of Burbage Common Road will be lost through the Main HNRFI Site, the Proposed Development represented an opportunity to create a traffic free, dedicated bridleway route around the perimeter of the Main HNRFI Site as illustrated in Figure 15. The new route starts at the northern end of the Main HNRFI Site, travelling east, then south down the eastern edge of the site through a wide landscaped corridor, linking up with Bridleway V29 that provides an onward connection to the east. The new route then continues south along the eastern edge towards the M69 Junction, turning west and crossing the road via a suitable crossing. The route then meanders around the edge of the Ancient Woodland of Freeholt Wood through an attractive, naturalistic corridor separated from the commercial development to the north before heading west through a wide-open landscaped area designed to complement the Burbage Common and Woods Country Park. The new route then exits the Main HNRFI Site, connecting up with Bridleway U51 and the Leicestershire Round promoted route, both of which pass through the Country Park.

The feasibility of an additional Bridleway route was explored through the design process around the north-west of the site. The route would travel from the retained north section of Burbage Common Road, north within the site and past Unit 1, then via a bridge over the railway, before heading south-west along the north-west boundary of the site, linking up with Footpath U50, V23 and Bridleway U52. However, the feasibility process highlighted that there would be an unjustifiable significant impact on ecology and mature woodland to provide such a route.

Offsite, there would be no works required during the construction phase. However, once operational, due to rail operations, a number of closures and diversions would be required, including T89 at Elmesthorpe, U17 and Thorneyfields Farm and U8/1 at the Outwoods (as illustrated in Figure 18).

6. DEVELOPMENT FRAMEWORK

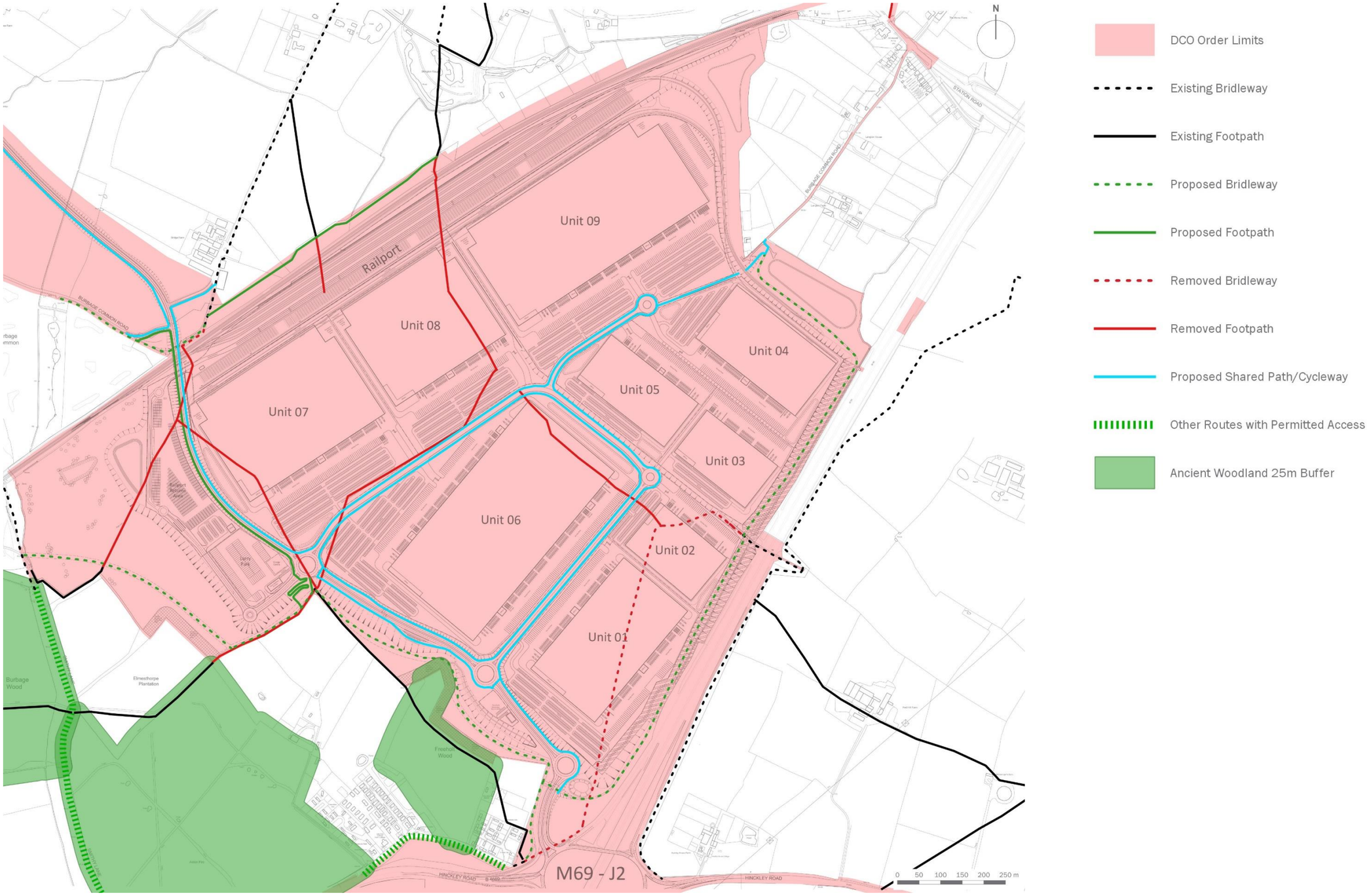
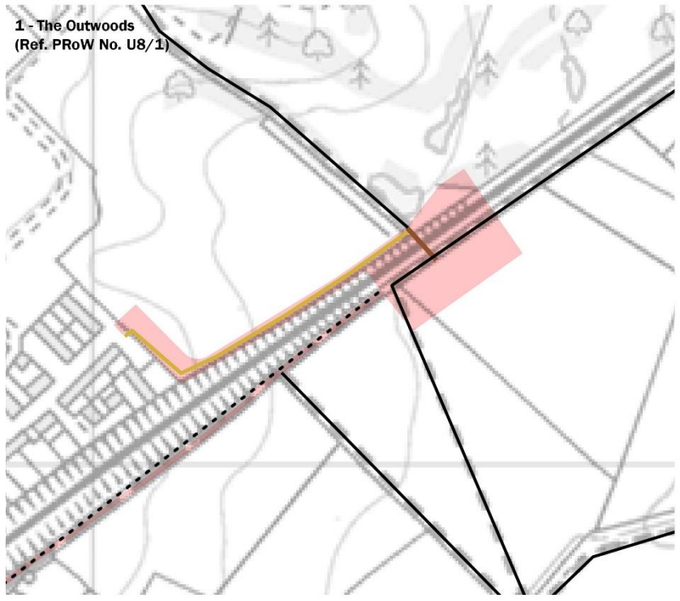
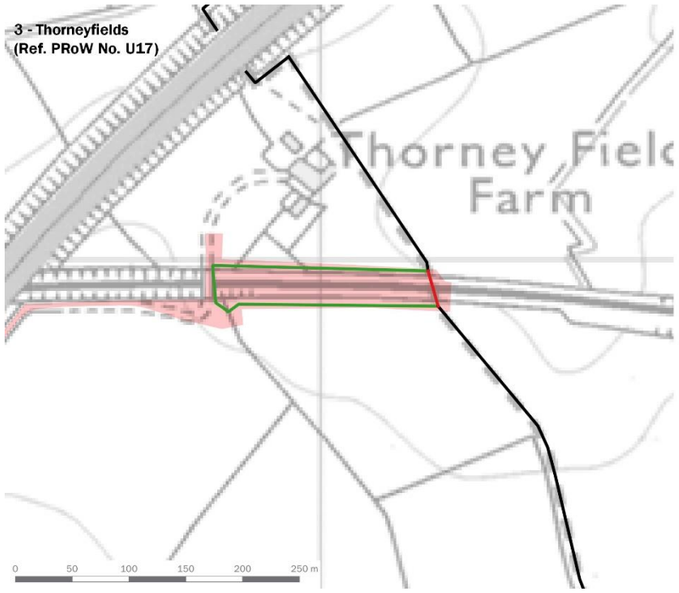
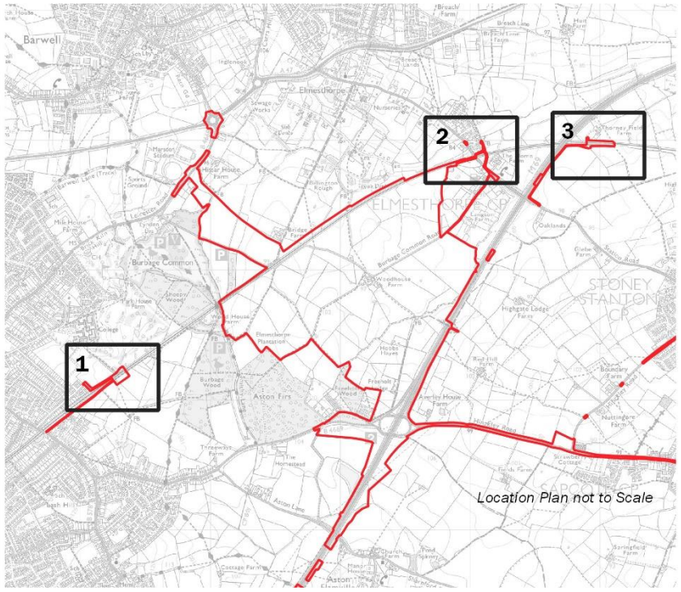


Fig 18. Illustrative Public rights of Way

6. DEVELOPMENT FRAMEWORK







DCO Order Limits

Existing Bridleway

Existing Footpath

Proposed Footpath

Removed Footpath

Alternative Route

Bridge (Optional)

Fig 19. Illustrative Public rights of Way at Level Crossing Points

6. DEVELOPMENT FRAMEWORK

6.6 Ecology

A wide range of ecological surveys have been undertaken across the Main Order Limits since 2016 to determine the baseline conditions. To ensure the DCO application and ecological assessment is supported by up-to-date information, a suite of update surveys was completed between December 2020 and October 2021. These include an Extended Phase 1 Habitat Survey and a suite of additional Phase 2 surveys including detailed botanical surveys of hedgerows, grassland and woodland and surveys for wintering and breeding birds, roosting and foraging bats, otter, water vole, badger, great crested newt, reptiles and terrestrial invertebrates.

There are no internationally designated sites within 10km and the only statutory designated site which has required consideration in the design of the scheme is Burbage Wood and Aston Firs SSSI and the overlapping Burbage Common and Woods LNR, adjacent to the southwestern boundary. (ref. Figure 19)

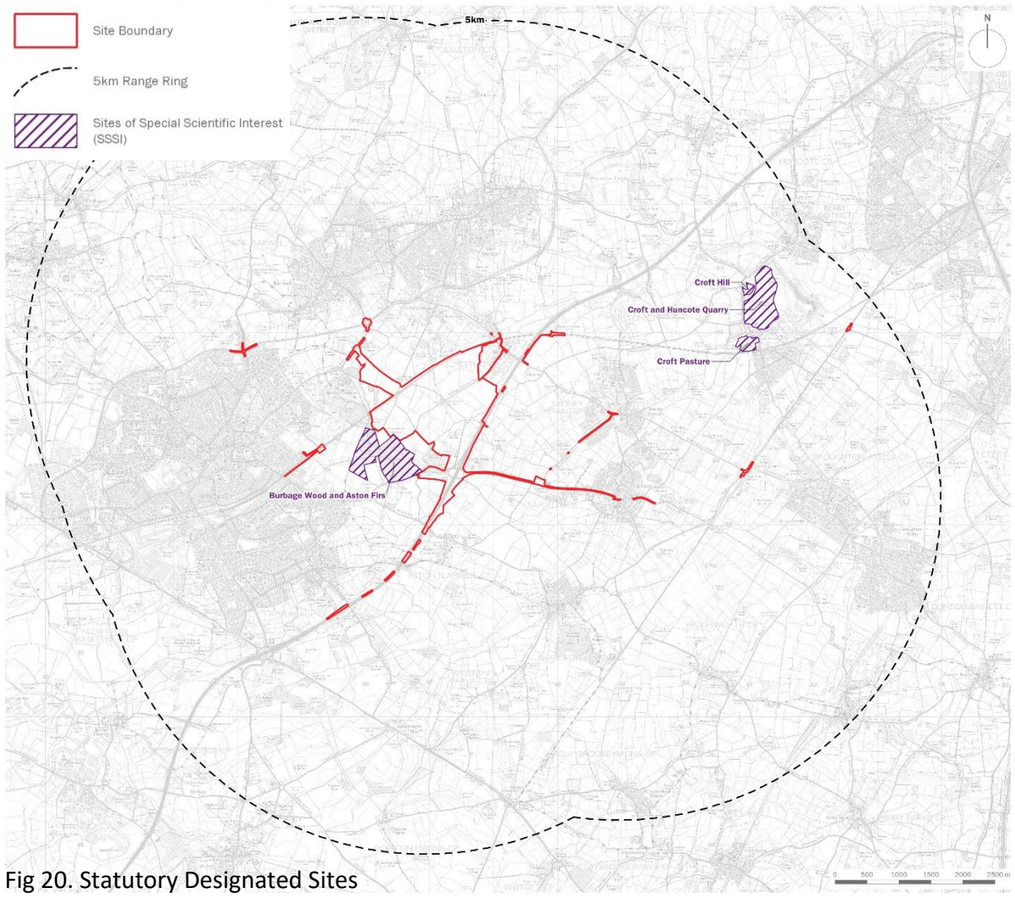


Fig 20. Statutory Designated Sites

In terms of non-statutory designations there are two Local Wildlife Sites (LWS), and seven candidate or potential LWSs, within the Main Order Limits. A further nine such sites are in sufficiently close proximity to be at risk of adverse impacts in the absence of mitigation, most notably Burbage Common and Woods LWS. (ref. Figure 20)

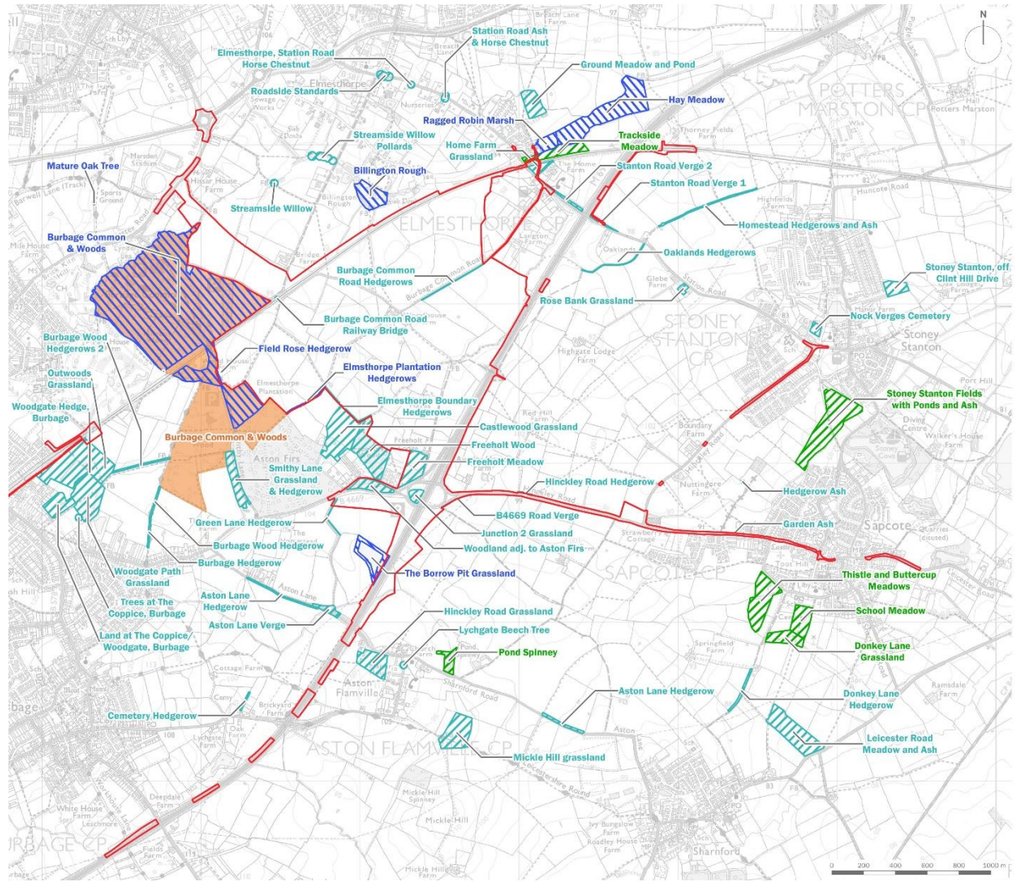


Fig 21. Non-Statutory Designated Sites

6. DEVELOPMENT FRAMEWORK

6.6 Ecology cont.

The Main Order Limits principally comprise arable, improved, semi-improved grassland, buildings and hardstanding, marshy grassland and tall ruderal vegetation of very limited ecological importance. Habitats are present within the Main Order Limits which are of greater importance (at the Local-District level), namely the hedgerow/tree line network, scattered mature trees, semi-natural woodland and plantation woodland, semi-improved neutral grassland, ponds and the stream and ditch network. (ref Figure 21.)

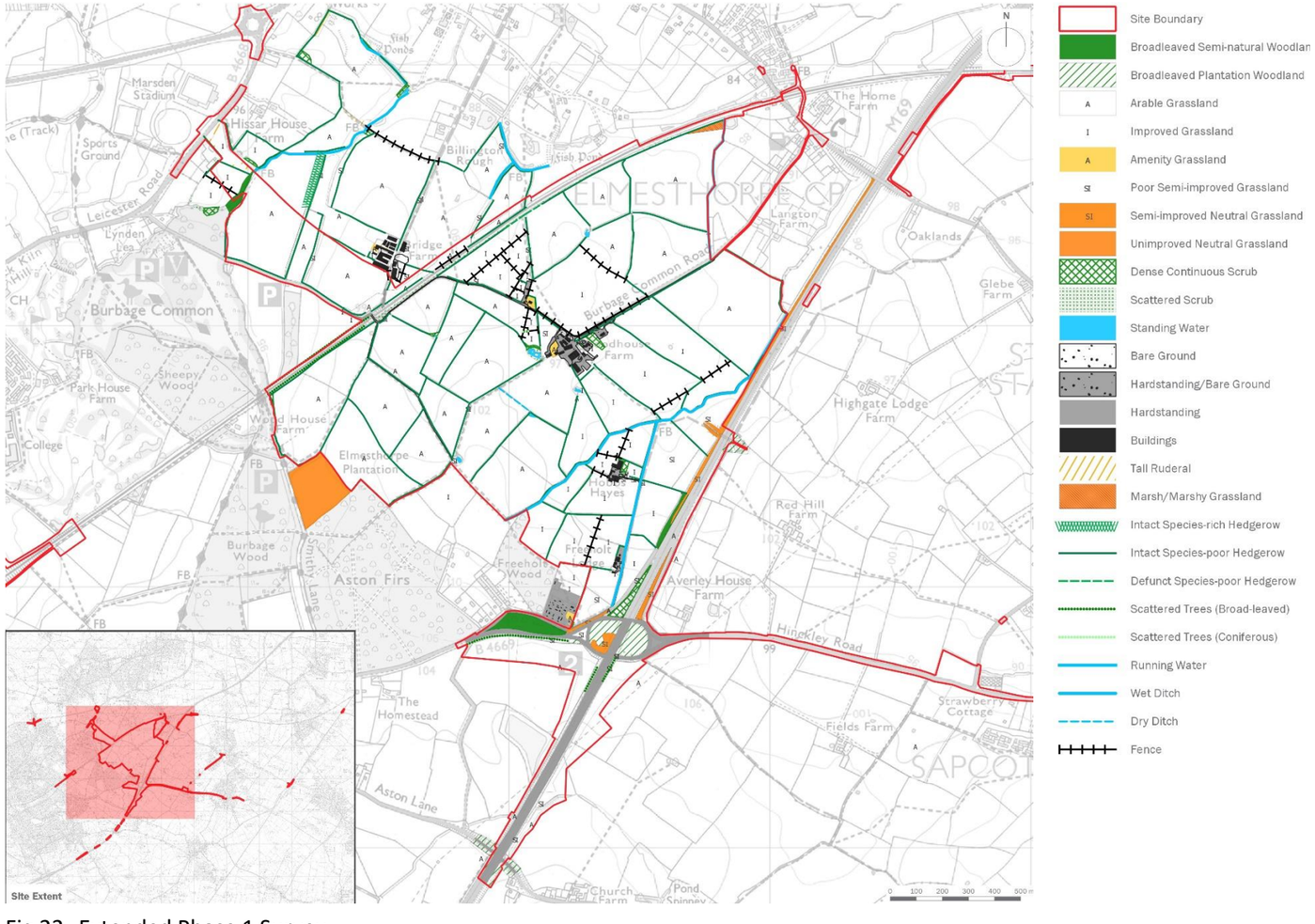


Fig 22. Extended Phase 1 Survey

A range of protected/notable species have been confirmed or assumed to be present within the Main Order Limits, including birds, mammals, amphibians and reptiles, with the ecological importance of these populations ranging from Site-District level.

The ecological features present have influenced the design and layout of the proposed development and the associated Illustrative Landscape Strategy. Most notably, the layout incorporates a substantial development buffer (25-50m) beside Burbage Wood and Aston Firs SSSI. In addition, a range of other non-statutory designations and other important habitats are to be retained and/or buffered from development to minimise potential impacts. The buffer zones to the west of the Main Order Limits offer significant opportunities for creation of new habitats of biodiversity value, including open meadow grassland, shrub and tree planting and wetland/SuDS features. Owing to their location these ecologically rich habitat areas will provide an extension to the existing valuable habitats in the adjacent Burbage Common and Woods, thereby strengthening the local ecological network and maximising biodiversity benefits. (ref. Figure 16)

Collectively, the restoration of existing habitats and creation of new habitats will mitigate the impacts of unavoidable losses to facilitate the development. Together with the provision of additional off-site compensatory habitat creation, these measures will enable the development to achieve its aim of delivering a net gain in biodiversity of 10%.

6. DEVELOPMENT FRAMEWORK

6.7 Flood Risk and Drainage

The majority of the Proposed Development is located in the Thurlaston Brook catchment. An unnamed tributary of the Thurlaston Brook, which is referred to here as the 'Thurlaston Brook Tributary'', flows eastwards across the route of the proposed A47 Link Road and immediately beyond the railway line to the north of the Main HNRFI Site.

An Unnamed Ordinary Watercourse (UOW) flows north-eastward through the southern portion of the Main HNRFI Site before joining the Thurlaston Brook Tributary just downstream of the railway line. This UOW 'issues' within the Main HNRFI Site itself, rather than being fed by an upstream catchment.

Additionally, several field drainages ditches and small ponds in the Main HNRFI Site discharge into the Thurlaston Brook Tributary.

With reference to the Environment Agencys's (EA) *Flood Map for Planning* , the majority of the Main HNRFI Site lies within Flood Zone 1 (low probability of flooding). Flood Zone 1 is defined as land having a less than 1 in 1,000 annual probability of fluvial or tidal flooding. However, there is a small portion of the Main HNRFI Site adjacent to the northern boundarylocated in Flood Zone 3 (high probability of flooding) and Flood Zone 2 (medium probability of flooding). Flood Zone 3 is defined as land having a 1 in 100 or greater annual probability of fluvial flooding, or a 1 in 200 or greater annual probability of tidal flooding. Flood Zone 2 is defined as land having between a 1 in 100 and 1 in 1,000 annual probability of fluvial flooding, or between a 1 in 200 and 1 in 1,000 annual probability of tidal flooding. This flood risk is associated with the Thurlaston Brook Tributary. (See Figure 3 for flood zone areas)

The *Flood Map for Planning* does not take account of watercourses with a catchment area of less than 3km^2, which is the case of the smaller watercourses within the Main HNRFI Site and in the vicinity of the A47 Link Road and off-site junction enhancements and highway works. As such, the *Flood Map for Planning* is not considered fully representative of flood risk in these areas.

The *Flood Map for Planning* shows the A47 Link Road will cross through areas of Flood Zone 2 and Flood Zone 3 associated with the Thurlaston Brook Tributary.

The nearest canal to the Main Order Limits is the Ashby Canal, located over 5km to the west. This distance and the intervening topography is such that the HNRFI is not considered to be at risk from flooding from the canal.

With appropriate mitigation in place, no significant adverse effects will remain as a result of the proposed development.

6.8 Climate Change

Climate change is likely to increase flood levels associated with the Thurlaston Brook, UOW, Soar Brook and other minor watercourses and subsequently, increase risk of flooding both within the Main HNRFI Site and downstream. The hydraulic modelling includes an assessment of climate change and mitigation measures proposed based upon the results. With the implementation of mitigation measures, the effect of climate change on the fluvial flood risk to the Proposed Development is considered negligible.

The Main HNRFI Site and A47 Link Road might be at an increased risk of surface water pooling because of increased rainfall. The increase in impermeable surfaces within the Main HNRFI Site will also increase runoff towards the local watercourses. However, the drainage strategy for the Main HNRFI Site will be designed to account for climate change. Additionally, reduced rates of discharge because of the drainage strategy may provide downstream benefits in the form of reduced flood risk. As such, the effect of climate change on surface water flood risk is considered to be negligible or minor beneficial.

There will inevitably be an increase in the volume of surface water runoff post-development prior to mitigation. The surface water drainage strategy will ensure surface water will be managed appropriately to ensure that the rate of surface water arising from the Main HNRFI Site and A47 Link Road is not increased and water quality is not compromised. The drainage strategy will take account of climate change.

6.9 Pollution

Pollution control methods will supplement the use of sustainable drainage systems on-site to provide pre-treatment to surface water from higher risk pollution areas such as highways and car parking areas.

6.10 Foul Water

The Main HNRFI Site is located within Severn Trent Water's (STW) sewerage area, although it is not believed to currently be served by a public foul water drainage system. Foul water from existing properties within the Main HNRFI Site is understood to currently be disposed to on-site management / disposal systems.

Consultation with STW highlighted that it had undertaken modelling of the Proposed Development in the past, the results of which demonstrated insufficient capacity from additional foul flows. As such, an upgrade to the network will be required.

The proposed A47 Link Road, junction enhancements and minor off-site highway works do not affect any foul water drainage assets.

6. DEVELOPMENT FRAMEWORK

6.11 Potable Water Supply

The EA classifies the STW region as having a 'moderate' degree of water stress.

Potable water is supplied to the area by STW. STW has confirmed that there is a 300 mm trunk main to the northeast of the Main HNRFI Site, running along the B4668. STW confirmed that it can supply the development from this existing trunk main.

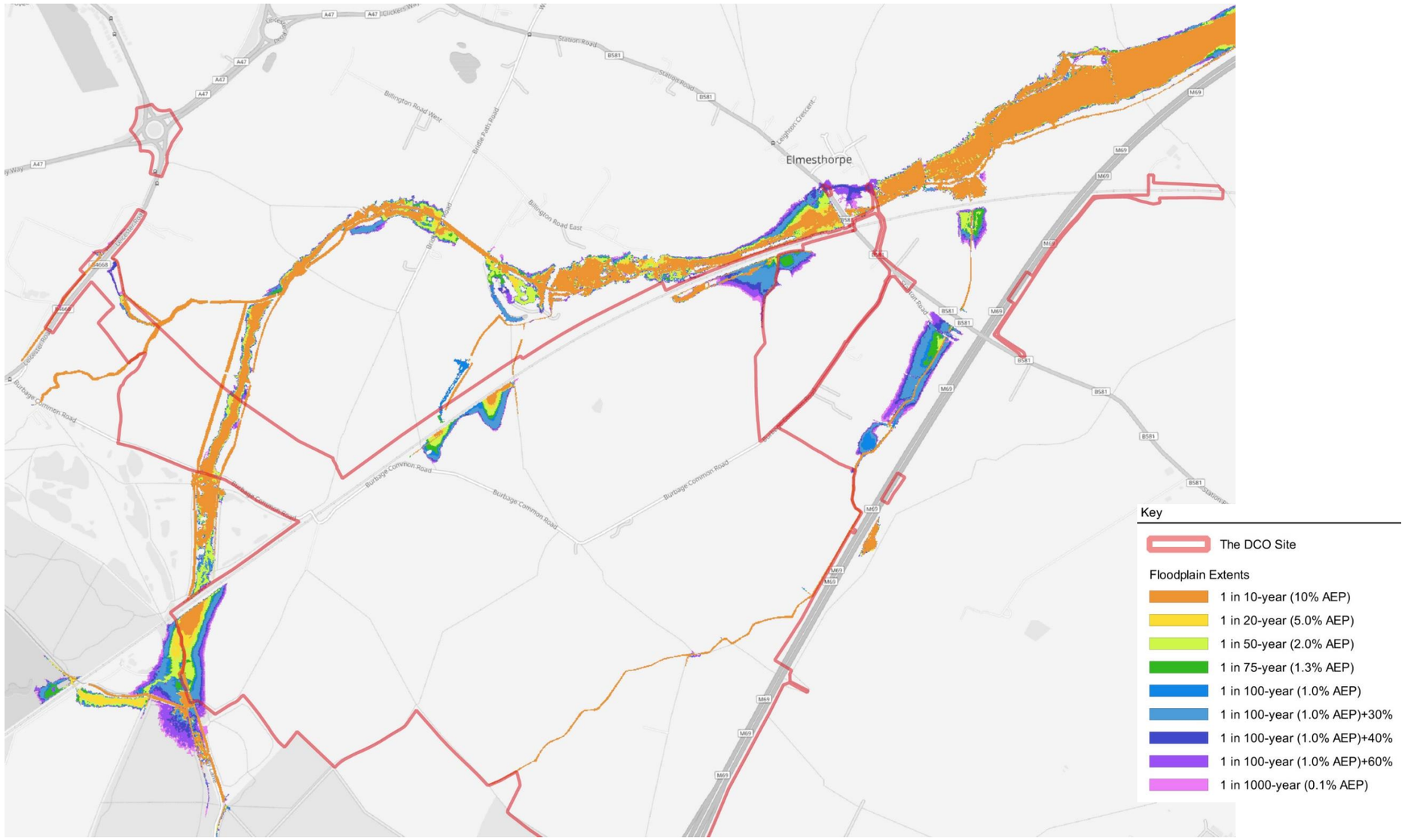


Fig 23. Floodplain Impact Areas

6. DEVELOPMENT FRAMEWORK

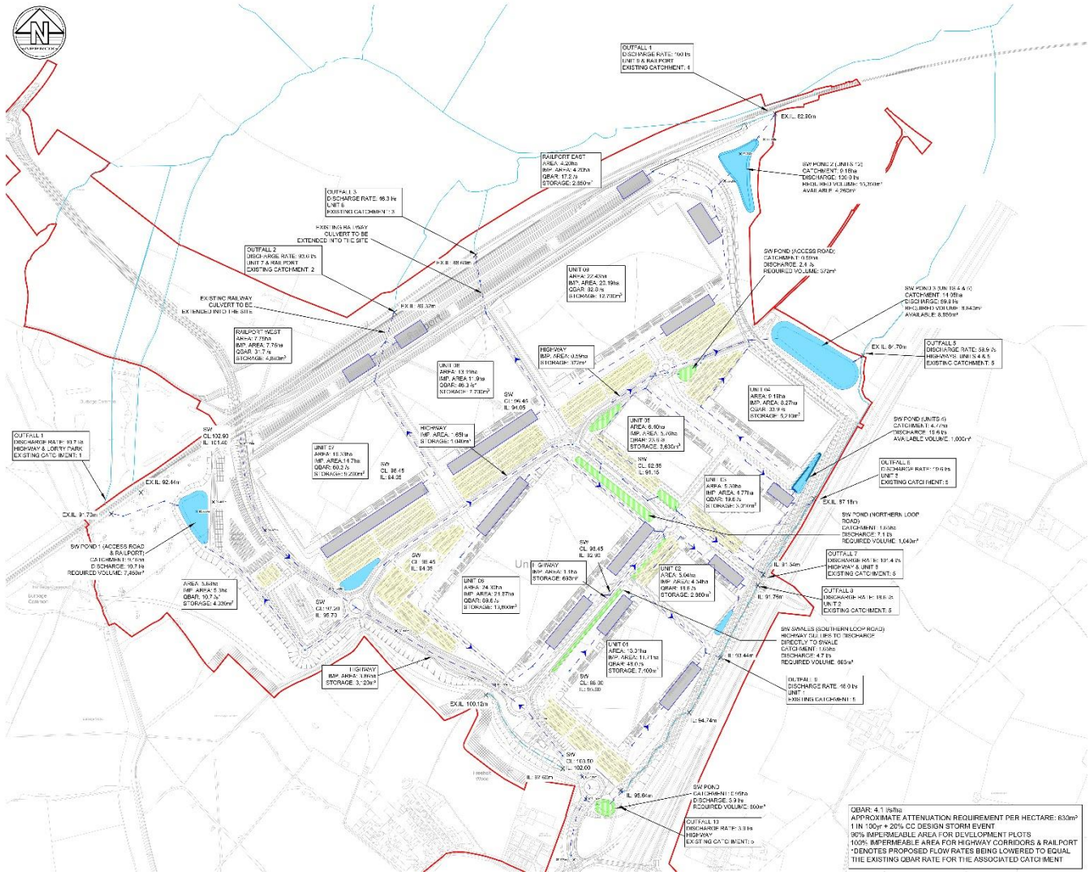


Fig 24. Illustrative Storm Water Drainage Strategy

Fig 25. Illustrative Storm Water Drainage Strategy

Legend

- APPLICATION BOUNDARY
- EXISTING WATERCOURSE
- PROPOSED WATERCOURSE DIVERSION
- INDICATIVE SURFACE WATER DRAINAGE RUN
- ABOVE GROUND ATTENUATION FEATURE
- HIGHWAY SWALE/ATTENUATION
- BELOW GROUND ATTENUATION FEATURE
- PERMEABLE PAVING AND SUB-BASE STORAGE

Legend

- APPLICATION BOUNDARY
- EXISTING SEVERN TRENT WATER PUBLIC FOUL SEWER
- INDICATIVE FOUL WATER DRAINAGE RUN
- FOUL PUMPING STATION AND RISING MAIN

6. DEVELOPMENT FRAMEWORK

6.12.1 Accessibility – Consultation

A Transport Working Group (TWG) was established comprising representatives from National Highways (NH) (Formerly known as Highways England), AECOM (National Highways term consultant), Leicestershire County Council (LCC), Warwickshire County Council (WCC), Leicester City Council (LCiC), Coventry City Council (CCC), Blaby District Council (BDC) and Hinckley & Bosworth District Council with TSH and BWB Consulting Ltd as the applicant's Transport and Highway consultants.. The objectives of the TWG are:

- to provide a forum for consultation with the regulatory stakeholders; and
- to allow agreement, in a phased and methodical process, of the key components of the transport work that are required to support the DCO submission and ES Chapter.
- To date trip generation, distribution, planning and infrastructure uncertainty log have been reviewed and signed off by the key highway authorities. Base and forecast models have been subject to further analysis by the TWG for final sign-off.
- Additional analysis of throughputs at Narborough Station and Level Crossing have been taken into consideration, based on discussions with the TWG. Further detail has been provided by Network Rail.

For the public and sustainable transport inputs to the strategy, a meeting was held with representatives of LCC public and active travel teams in August 2021. This led on from a discussion with Arriva Buses in 2021 and earlier engagement with Stagecoach 2019 regarding services in the area and potential ability to link the Site to new and existing services.

6.12.2 Accesibility – Highways

The principal aims of the NPS are to deliver (Section 2 Summary):

- networks with the capacity, connectivity and resilience to support national and local economic activity and to facilitate growth and create jobs;
- networks which support and improve journey quality, reliability and safety;
- networks which support the delivery of environmental goals and the move to a low carbon economy; and
- networks which join up our communities and link effectively to each other.

The NPS (paragraphs 2.42-2.49) also identifies the specific economic and environmental benefits of rail freight Interchanges.

Based upon this the proposed access infrastructure within the main HNRFI site is:

- M69 Junction 2: New two lane south facing slips (off and on slips) serving Junction 2 are proposed to give direct and all movement access to the Strategic Road Network. The Junction 2 circulatory carriageway is to be widened and existing arms amended. A new roundabout arm will be added for access to the development site. New arms will be provided for the south facing slips onto the M69. All arms of the roundabout are to be signalised. (Figures 25 & 25.)
- A47 Link Road: A distributor road will link Junction 2 of the M69 through the site, crossing the railway and connecting to the B4668 and ultimately the A47. The road is designed as a dual carriageway in the section between the M69 Junction 2 and the site access roundabout 3 (approximately 990 metres) and as a single carriageway between the site access roundabout 3 and the B4668 Leicester Road to the west of the site (approximately 1,500 metres). (Figures 26 & 27.)
- B4668: Provision for three arm new roundabout access to the B4668 Leicester Road, including a segregated left turn lane southbound from the A47. (Figure 27.)

In addition, the wider highway network has also been considered and as a consequence there are a number of further upgrades that have been identified as providing a positive benefit and these are:

- Ashby Rd / A47- improved flare lanes and new pedestrian facilities
- B4668/The Common/A47- improved flare on the B4668 entry arm
- Hinckley Rd / New Rd / B581- new signalised junction with pedestrian facilities
- B4669 /Stanton Lane – new signalised junction.
- A5 / A4303 /B4027 / Coal Pit lane- additional flare capacity added to A5 and Coal Pit Lane.
- B4114 Coventry Road/Croft Road- additional capacity added for southbound traffic
- B4114 Coventry Road/Broughton Road- additional enhancements to the newly signalised junction including additional flare lanes.

- Reduction of speed limit, traffic calming features and formalisation of on carriageway parking on Stanton Lane/Hinckley Road, southwest of Stoney Stanton.
- Traffic calming features, cycle infrastructure, wider footways, public realm and relocation of bus stop at Church Street and the B4669 Hinckley Road, Sapcote.

The wider network measures are illustrated on figures 28 – 34.

6. DEVELOPMENT FRAMEWORK

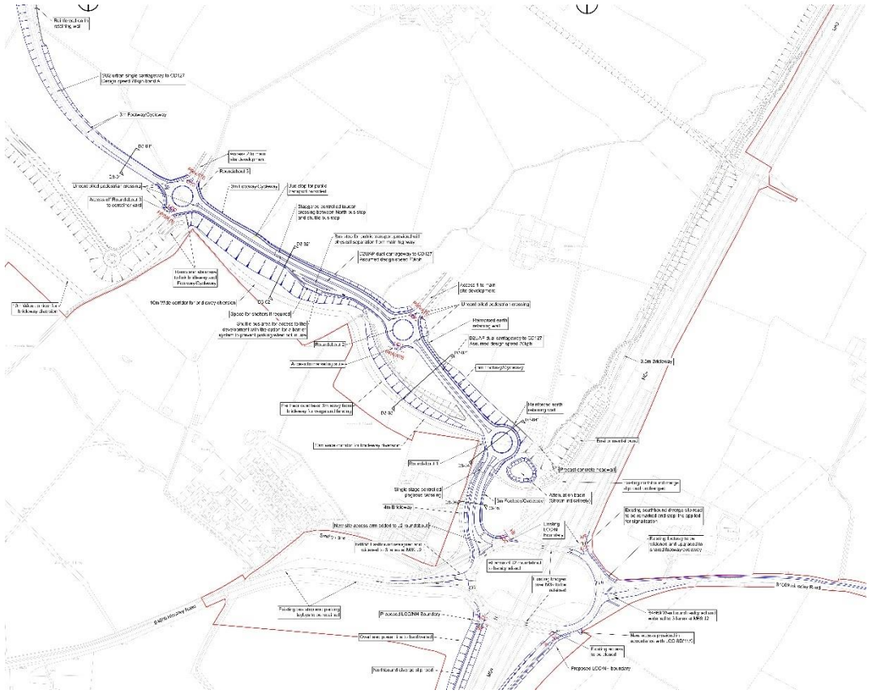


Fig 26. M69 Junction 2 and A47 Link Road

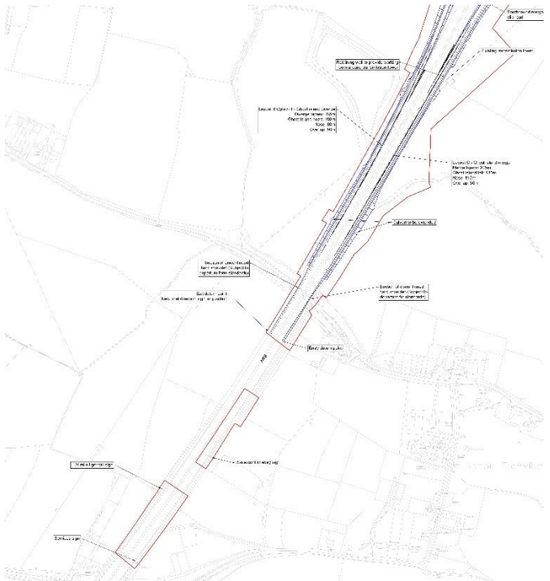


Fig 27. M69 Southern Slip Lanes

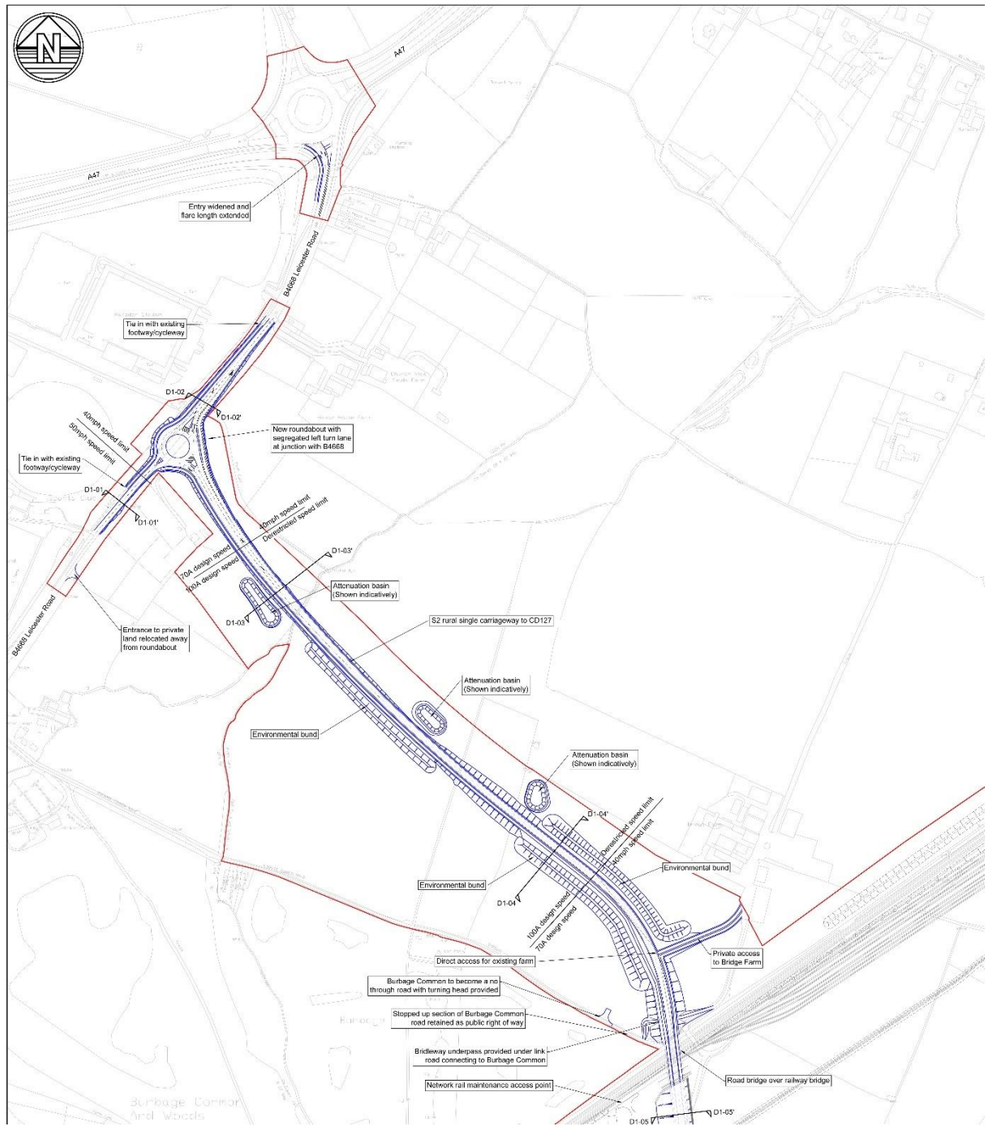


Fig 28. Railway Bridge Crossing, A47 Link Road and Leicester Road / A47 Connection

6. DEVELOPMENT FRAMEWORK

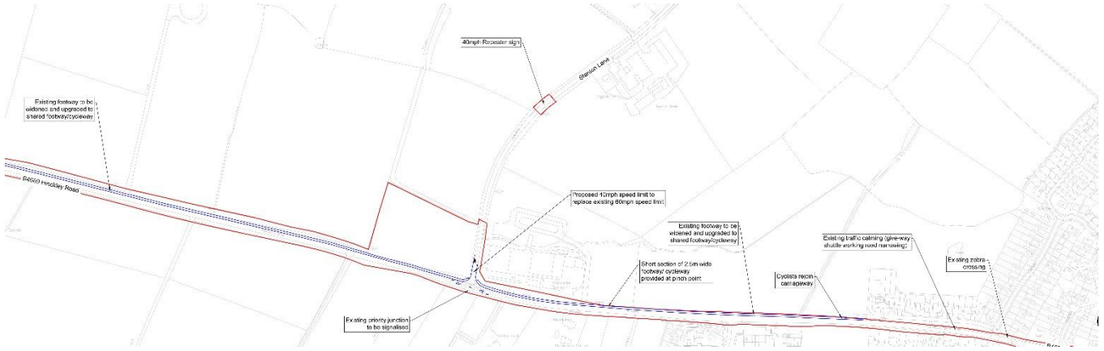


Fig 29. Proposed Works to the Hinckley Road, West of Sapcote

Document 2.4G Sheet 7B

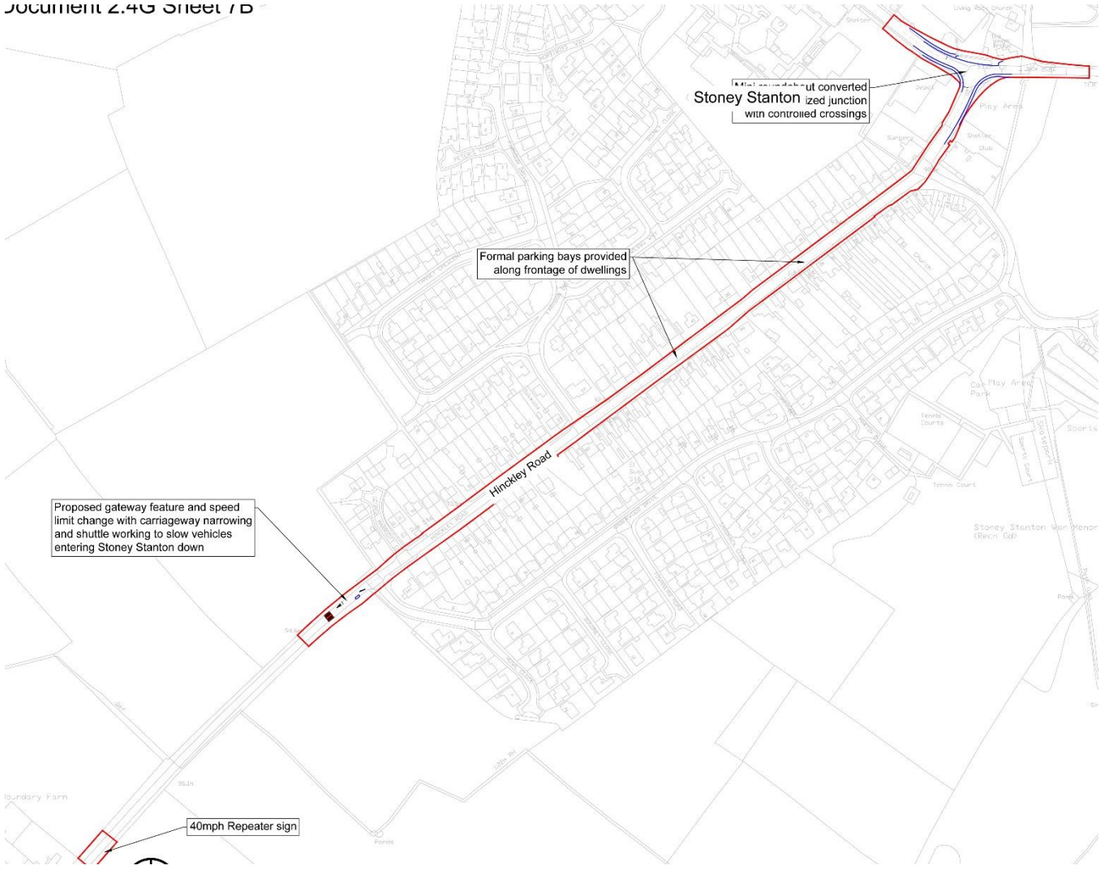


Fig 30. Proposed Works to the Hinckley Road, Stoney Stanton

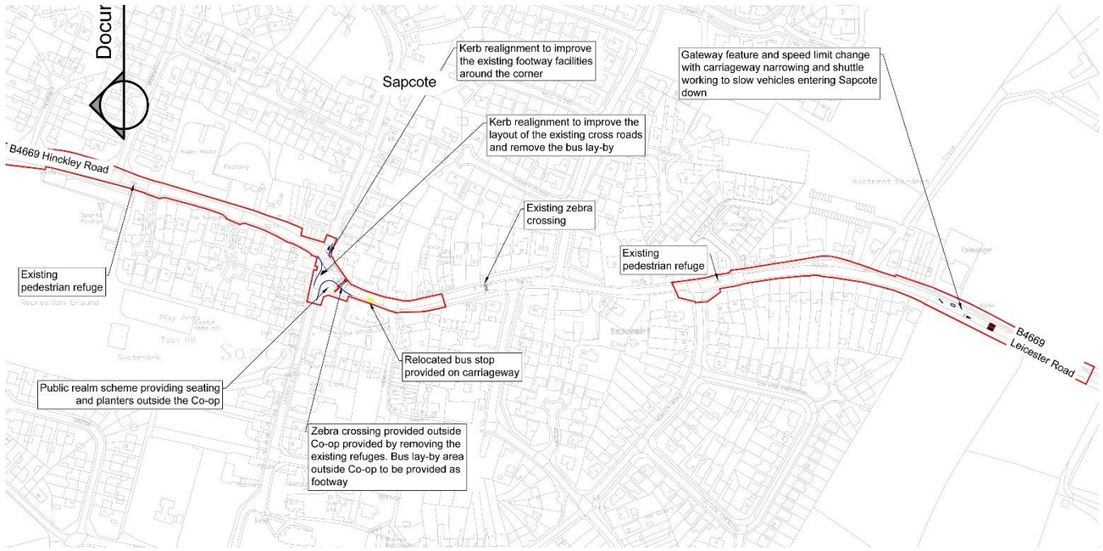


Fig 31. Proposed Works to the Hinckley Road / Leicester Road, Sapcote

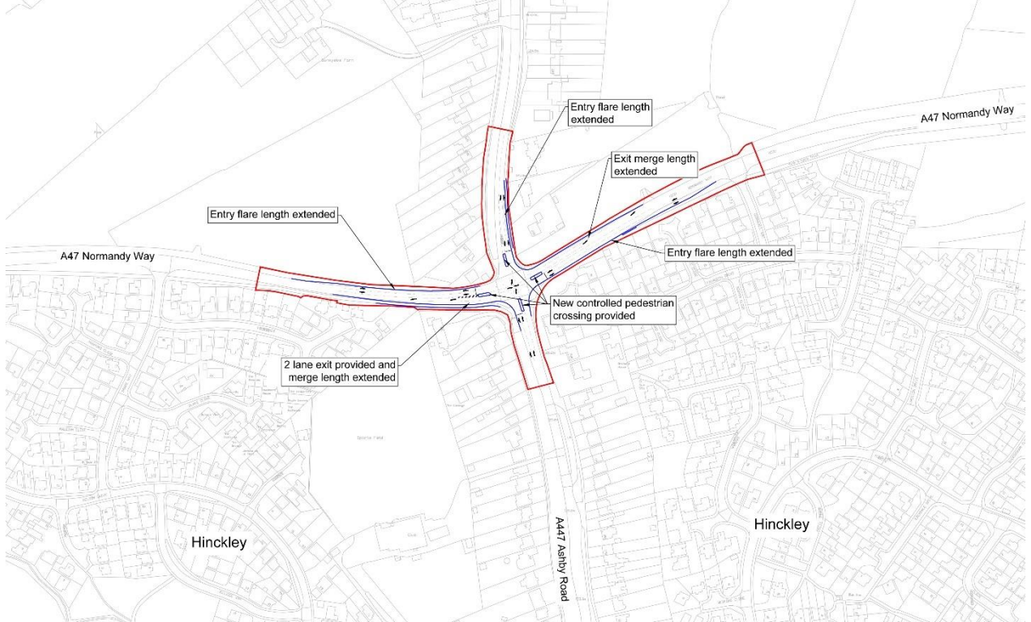


Fig 32. Proposed Works to the A47 / Ashby Road Junction, Hinckley

6. DEVELOPMENT FRAMEWORK

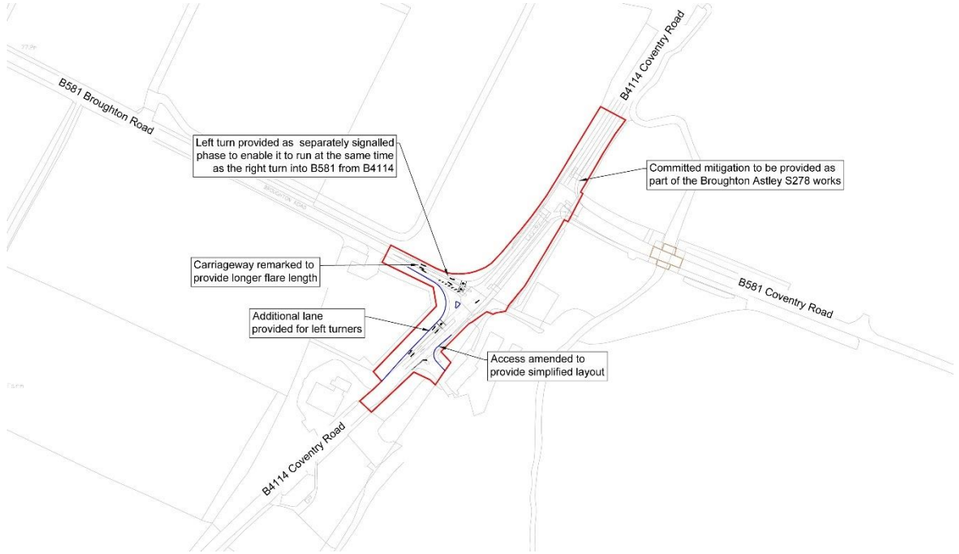


Fig 33. Proposed Works to Coventry Road / Broughton Road junction east of Stoney Stanton

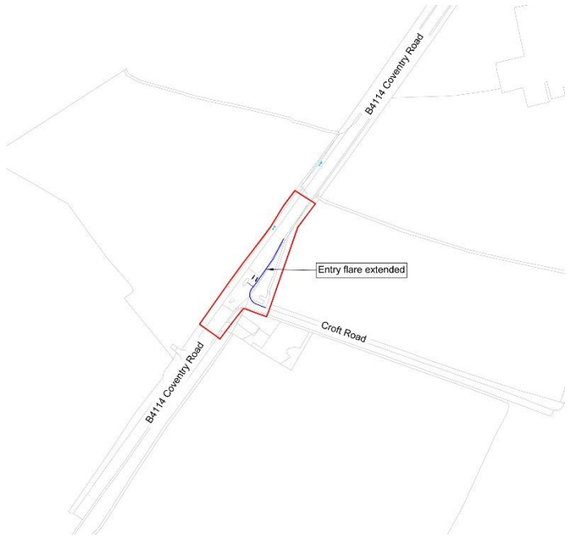


Fig 34. Proposed Works to Coventry Road / Croft Road junction east of Croft

Fig 35. Proposed Works to A5 Magna Park Roundabout

6. DEVELOPMENT FRAMEWORK

6.12.3 Accessibility – Rail

The Hinckley National Rail Freight Terminal will connect into Network Rails Felixstowe to Nuneaton line, providing access to the UK's container ports and is well placed to support the shift of freight from road to rail.

The Railport has been designed to include an 'in and out' design with two connections onto the main line to minimise shunting within the Railport itself.

The Railport comprises up to four reception sidings and four intermodal sidings that can be implemented in a phased manner as the demand increases, with capacity to handle up to 16 trains per day and in lengths up to 775m.

As part of the Railport infrastructure the design also includes cripple sidings and a head shunt for dealing with stricken engines and rolling stock and for performing shunting within the terminal without having to take trains back onto the main line and inconvenience the main network and passenger trains.

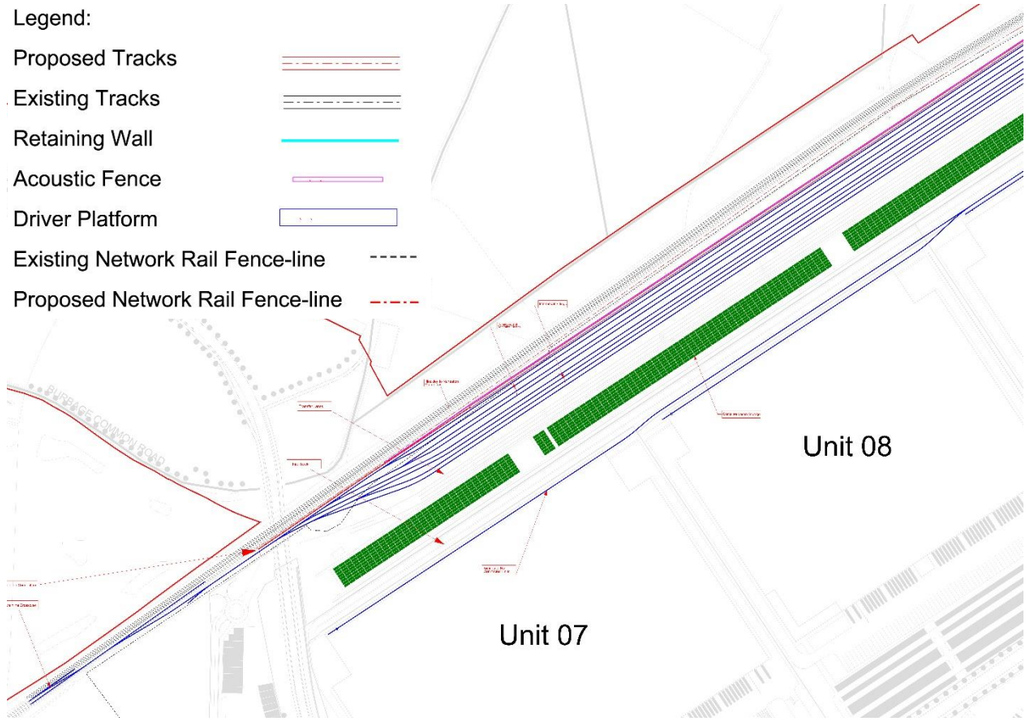


Fig 36. Main Reception sidings, intermodal sidings and container storage – Southern Area

In order to meet the requirements of the NSIP the illustrative masterplan demonstrates how, via their own dedicated sidings, 55% of the development could be rail connected with the balance having the ability to be rail served.

The balance of the Railport has been laid out for the provision of container storage that will be managed by means of reach stackers and gantry cranes making the Railport truly intermodal.

In addition, the Railport will also be provided with ancillary office and welfare accommodation as well as parking facilities for the employees.

Provision to screen the facility has been made either by landscaped bunding or acoustic fencing to mitigate the impacts of the train movements.

Whilst the Railport sidings will not be electrified at day one, provision will be made to ensure that they can be in the future as the rail network is upgraded.

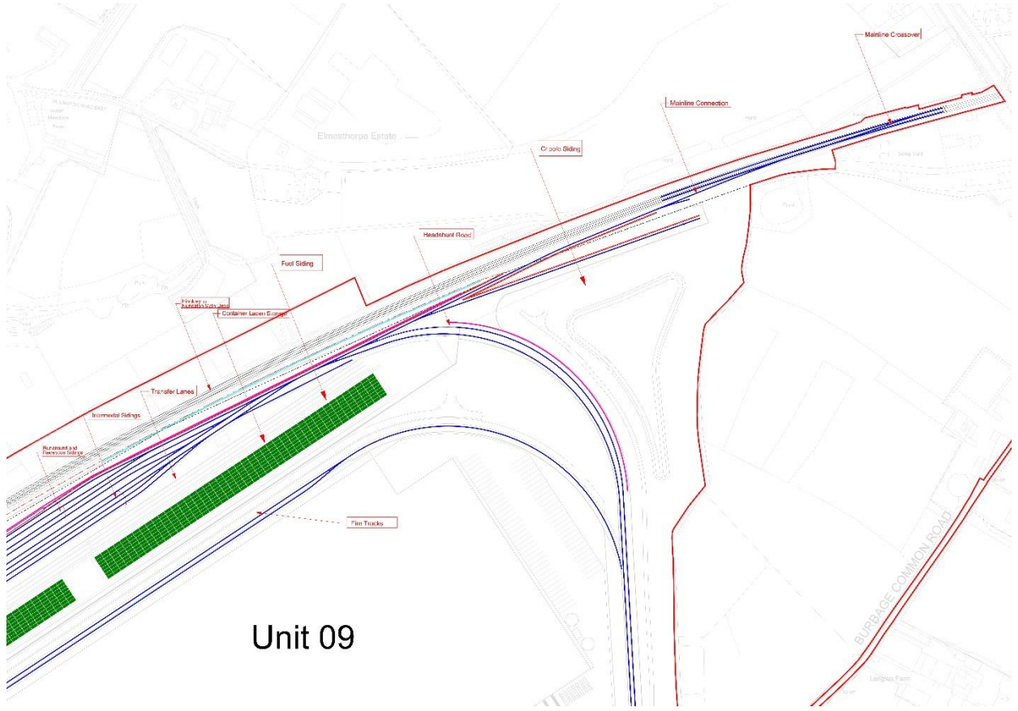
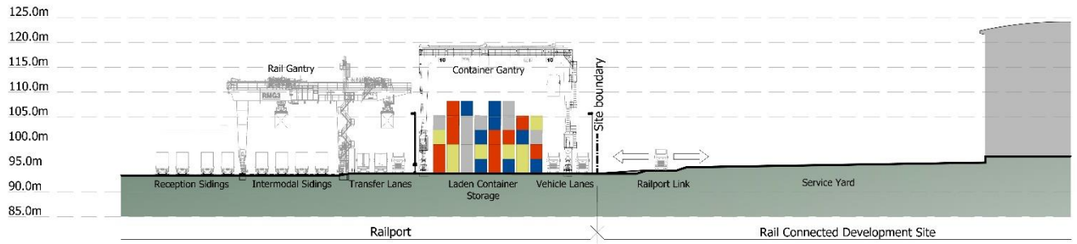


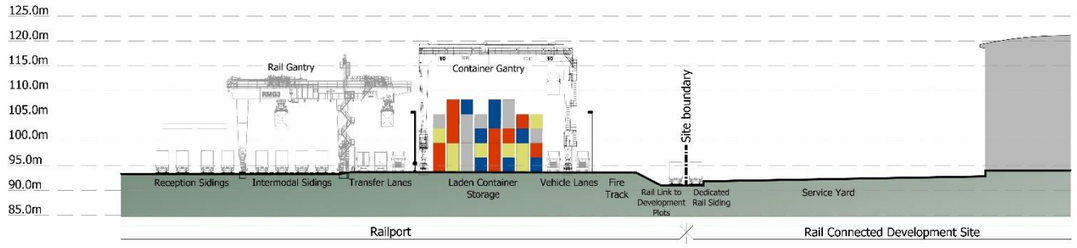
Fig 37. Main Reception sidings, intermodal sidings and container storage – Northern Area

6. DEVELOPMENT FRAMEWORK

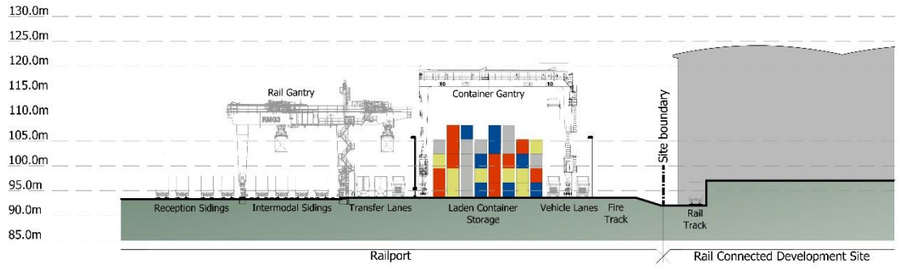
Fig 38. Railport Headshunt to north of Main HNRFI



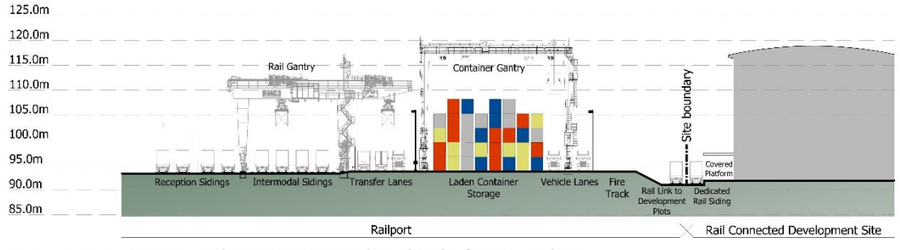
SECTION A - Direct & Secure Vehicular Access to Railport from Service Area



SECTION B - Direct Rail Connection within Service Yard and Gantry/ Reach Stacker Loading



SECTION C - Direct Rail Connection with Gantry Lift System within Building



SECTION D - Direct Rail Connection with Side Platform Loading

Fig 39. Illustrative sections showing development options for rail connectivity

6. DEVELOPMENT FRAMEWORK

6.12.4 Accessibility – Public Transport

The overall provision of public transport will be improved to serve the Proposed Development and secured through a DCO and / or Section 106 Agreement. A public transport strategy has been submitted as part of a Draft Sustainable Transport Strategy (STS).

It is proposed to enhance existing services to key employee locations such as Coventry, Leicester, Hinckley and Nuneaton as well as develop demand responsive bus transport to local villages to the east of the M69 motorway. The review of the proposals will be influenced by responses to the statutory consultation exercise.

There is provision within the illustrative masterplan for a large (multiple vehicle provision) bus stop on the A47 Link Road with stops identified in both directions. The bus stop would link with the rest of the development via pedestrian footpaths.

Fig. 40. Proposed Bus Stop Location within Main HNRFI

6.12.5 Accessibility – Travel Plan

A Travel Plan is being developed alongside the Transport Assessment and in accordance with the guidelines in the Department for Transport documents – 'Good Practice Guidelines: Delivering Travel Plans through the Travel Plan Process'. The Travel Plan includes complementary measures to encourage walking, cycling, bus and car sharing as modes of transport such as:

- Appointment of a Travel Plan Co-ordinator to administer the Travel Plan.
- Web-based travel packs.
- Provision of relevant marketing Information.
- Subsidised bus transport for employees– to encourage greater bus use.
- Monitoring of the Travel Plan against Travel Plan targets.

6.12.6 Accessibility – Walking and Cycling

The proposed development will include a new network of segregated pedestrian footpaths and cycleways within the development itself and which form and integral part of the estate infrastructure.

These provisions will link into the new A47 Link Road and run along the full length of the highway before linking with the wider network. Additional infrastructure is proposed on the surrounding highway network to provide amenity for pedestrians and cyclists alike.

The existing Public Rights of Way and Bridleways across the site will be affected by the proposed development, which includes a number of railway level crossings, and a new network of footpaths and bridleways maintaining the connectivity are proposed and illustrated on figure 17.

6. DEVELOPMENT FRAMEWORK

6.18 Noise

The impact of noise has been considered and noise sensitive receptors identified in the areas to the north, east, south and west of the main HNRFI site and the A47 Link Road and assessed based upon the development parameters.

Surveys have been undertaken to establish the existing noise and vibration levels.

Road traffic noise from the M69 and Junction is the overwhelming factor for most of the sensitive receptors to the east and the A47 / Leicester Road and Felixstowe to Nuneaton railway to the receptors to the west and north.

In addition the proposed landscaping illustrated on the illustrative landscaping strategy plan (figure 14) , the Parameters Plan identifies additional locations where mitigation measures are to be provided to minimise any adverse noise effects of the development whether that be from the operation of the new highway infrastructure, the Railport or the buildings. It is proposed that sensitively located acoustic fencing of varying heights is best placed to mitigate these impacts and the differing location heights and locations are identified in the following figures.

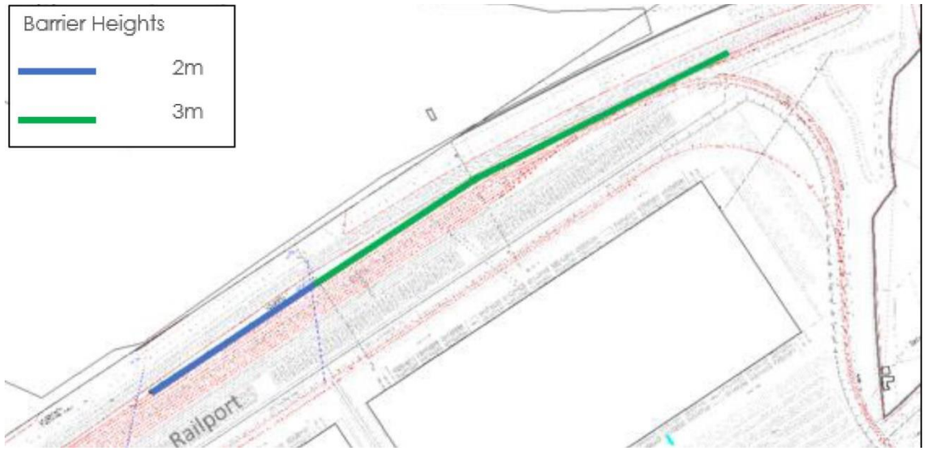


Fig. 41 Proposed Noise Barriers to north west of Railport

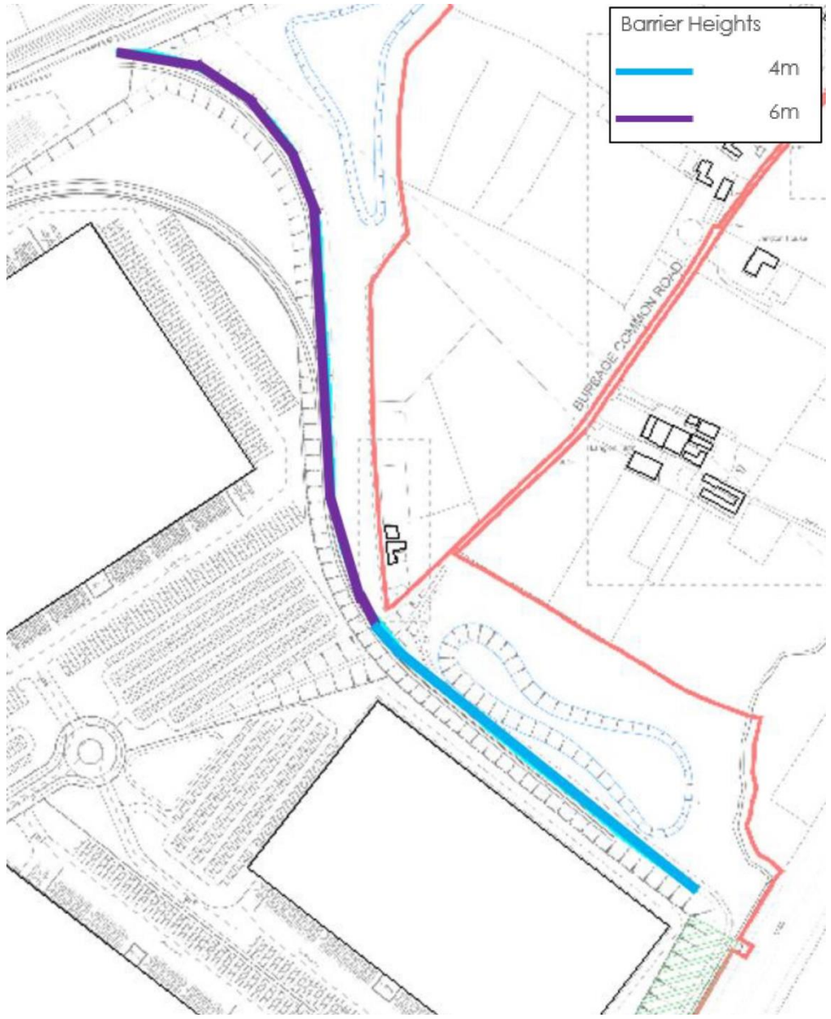


Fig 42. Proposed Noise Barriers to north east of Head Shunt.

6. DEVELOPMENT FRAMEWORK

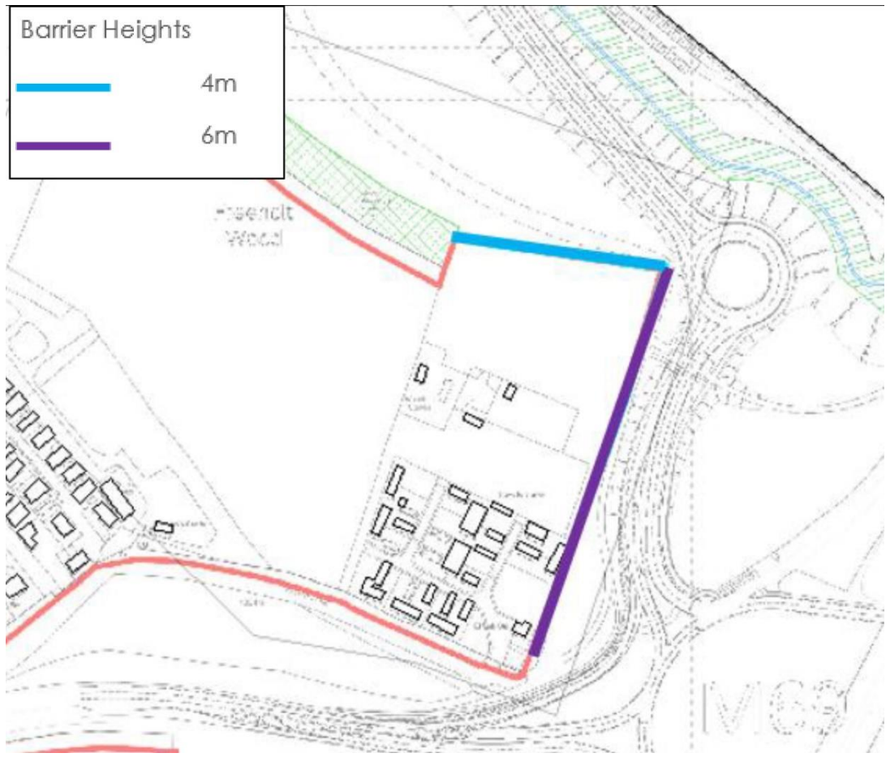


Fig. 43 Proposed Noise Barriers around Aston Firs

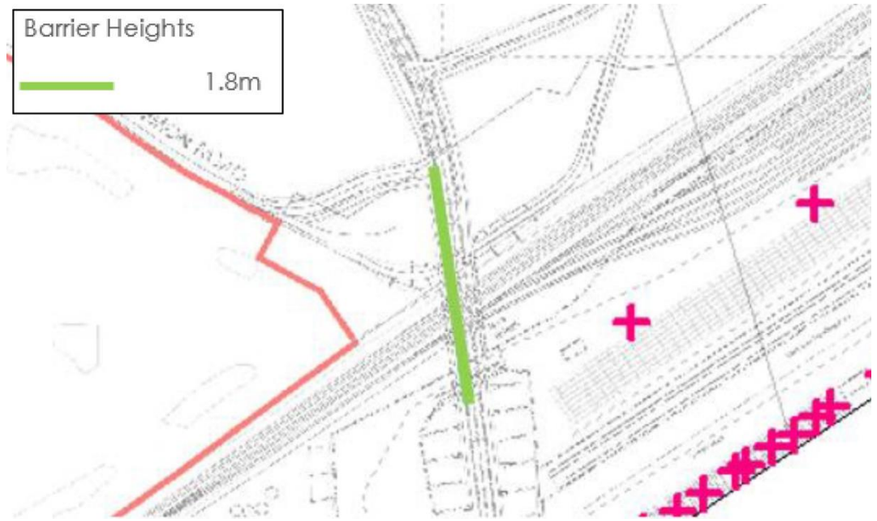


Fig 44. Noise Barrier on new Bridge on A47 Link Road

6. DEVELOPMENT FRAMEWORK

6.19 Lighting

Lighting is a key component of the new HNRFI, and light pollution and has been considered as part of the development parameters.

The types of light pollution that have been considered are:

- Light Spill where the light goes beyond the boundary of the site on which the source is located;
- Sky Glow which is the brightening of the night skyabove the illuminated area and;
- Glare which addresses the potential for experiencing visual discomfort of disability stemming from direct views of the light sourse.

Therefore, a modern external lighting installation is vitally important to the Proposed Development for many reasons including, but not limited to, the following:

- To provide safety for pedestrians from moving vehicles, railway and cranage;
- To provide ease of wayfinding and navigation for staff and visitors;
- To provide security and deter antisocial behaviour;
- To set the architectural scene and urban landscape;
- To control direction signage and their relationship with other illuminated material;
- To protect installations from accidental or deliberate damage; and
- To allow safe access and maintenance.

In order to achieve the best possible lighting proposals for the development it is proposed to implement the following design parameters**:**

- All external lighting shall be provided in accordance the Relevant Policies and Guidance. It will be designed to minimise light pollution and optimise energy use. Lighting will comply with recommendations for Environmental Zone E2 given in ILP Guidance Notes for the Reduction of Obtrusive Light (Guidance Note 01/20).
- Luminaires will be LED light source to provide optimum energy efficiency and accurate targeting of light output to keep light pollution effects to the absolute minimum.
- High mast lighting shall be introduced where standard column mounted lighting is deemed impractical. The use of high mast lighting shall be limited to the Railport, including the Railway Sidings and Container Handling Area.
- External lighting will be provided wherever necessary to provide a safe and secure environment for staff and other users after dark. ‘Secured by Design’ principles will be adopted and emphasis will be placed on achieving good uniformity of light distribution. All illumination levels will be set as low as practicable while complying with safety and security recommendations. Spill of light onto building facades and outside of the target area for illumination will be minimised through careful design, specification and positioning of lighting equipment.
- At the outer edges of the Proposed Development lighting units will as far as practicable be positioned so that they are out of view of sensitive receptors. Mounding, fencing and planting that is being provided for visual and noise reduction reasons will be recruited to assist in achieving this.
- Luminaires shall generally be mounted on buildings and on standard lighting columns and shall be arranged to maximise the amount of light reaching trafficked hard surfacing while minimising spill light onto adjacent areas.
- Lighting levels will be suitable for pedestrian, vehicular and railway access, and the operation of a CCTV system. Lighting will be installed to provide sufficient illumination for safe circulation and to promote a feeling of safety and security.
- G4 compliant luminaires shall be utilised for the road and area lighting. The G rating of a luminaire relates to the luminous intensity of light emitted at angles of 70, 80 and 90 degrees when the luminaire is mounted at a tilt of zero degrees to the finished surface that it is lighting.
- Luminaires must utilise optimum optical distribution to direct exactly where needed while allowing maximum spacing between luminaries and minimise the required number of columns.

6. DEVELOPMENT FRAMEWORK

6.20 Sustainability

The development proposals have been prepared to recognise the aspiration of the Applicant to pay high regard to energy efficiency and sustainability.

6.20.1 Energy

The primary philosophy for the energy efficiency of the buildings is to major on the thermal performance and air tightness of the units thereby minimising the energy requirement from the outset.

Any greater energy requirements for the development will then be addressed on the basis that energy could be provided from renewable sources where practicable, including the provision of PV cells on the roofs with either use direct from source or retained via battery storage.

The heating and ventilation systems within the building will make maximum use of heating and cooling processes that occur naturally in order to minimise energy consumption.

The units will maximise the amount of glazing in the facades and rooflights that contribute to natural lighting whilst offsetting the impacts of solar gain.

The buildings will incorporate a Building Energy Management System (BEMS) to control the heating, lighting, ventilation, hot water supply and renewable energy interfaces in full accordance with CIBSE guidelines to control the use of and save energy.

Prior to their implementation, the energy efficiency and sustainability measures will be assessed for suitability, technical review, installation costs, running costs, payback periods and plant space availability.

Where economically viable the scheme will exceed the requirements of Part L of the Building Regulations.

All proposed development will target BREEAM – Very Good and an EPC A rating as an absolute minimum.

The Applicant has committed to all their buildings being designed to achieve Net Zero Carbon in Construction.

Each individual development site will incorporate the provision of EV charging facilities to 20% of the total parking bays with provision designed in to connect the balance of the parking in the future as take up of electric vehicles increases.

6.20.2 Materials

The materials demand of the development will be addressed by maximising the use of reclaimed and recycled materials where practicable throughout the construction process. This will be considered in the early detailed design stages and written into the building specifications.

The materials have been chosen for their aesthetic qualities, robustness, recyclability, value and availability from local and sustainable sources.

Wherever possible the use of non-recyclable plastics will be avoided, and alternative materials will be requested from suppliers to be put forward for consideration.

Whenever possible and where practicable, the availability of a material from a local source, whether that be the raw material or manufacturing facility will be given full consideration.

The use of materials and surface treatments which produce harmful emissions will be avoided.

6.21 Equality

The new development will be fully Equality Act compliant with all areas being fully accessible. All entrances and exits will be designed with level thresholds and appropriate vertical access to all levels will be provided. Accessible parking areas will be located adjacent to the main vertical circulation points to minimise travel distances.

6.22 Waste & Recycling

The demand upon the development for the provision of recycling and waste storage will be addressed in the early detailed design stages and when detailed discussions can be held with prospective operators regarding the specific operations of the proposed units. In addition, recycling and waste will be considered for the construction phase.

Provision will be made within the detailed development of the scheme for the inclusion of recycling and waste storage / compaction within the identified service areas.

Contractors will be enforced through a Waste Management Plan to provide waste and recycling containers on site throughout the entire construction period.

As a standard, low flush WCs, urinals and mist spray taps will be provided to reduce the amount of foul discharge, reducing the charges by the Water Authority, and amount of waste to be dealt with by the treatment plants.

7. DESIGN PRINCIPLES

7.1 Building Form, Materials and Colour

The form of the distribution buildings will need to address the following two primary drivers, as well as addressing the brief of the client to sit alongside their own portfolio of developments but be a clearly identifiable scheme that responds to the individual needs of the wider marketplace.

- To sit harmoniously within the site setting when seen from key long views.
- To present an attractive, well considered and high-quality design when seen from shorter views and avoiding a monolithic appearance.

From the long views, the site will generally be seen against the agricultural landscape and adjacent Burbage Common and Woods as well as between the major infrastructure corridors of the M69 and the railway. Therefore, its impact can be mitigated using a subtle banding from a suitable colour palette, balanced with sensitively designed vertical elements, in order to break up the long elevational expanses. The roof scape was also be a key consideration in order to assist in assimilating the built forms within their immediate context.

The starting point is understanding the predominant colour palette of the existing environment and finding materials and colours that blend as far as possible into that existing palette. This stage is informed by the Landscape and Visual Impact assessment as well as a modified Environmental Colour Study. The site is viewed from a number of different locations to understand the predominant existing colour background and colour combinations tested to find a best fit.

Fig 45. Illustrative Artists Impression from the south east entrance roundabout looking west.

From shorter views, particularly where seen from the public realm and from the approaches to the building, it is important that the buildings provide interesting and attractive views as part of a development of high visual quality that will enhance the quality of the area. Fundamental to this objective, is to ensure that the building form is carefully detailed and articulated, using a carefully selected palette of materials, composed to produce a clearly articulated rhythm of subtly varying textures and neutral colours, with occasional well considered accents as appropriate. Again, the design of the roof line can greatly assist in visually reducing the overall scale of the development, when seen from the immediate vicinity, either by framing the facades against the sky or by gradually fading out the colour of the cladding.

Fig 46. Illustrative Artists Impression from the A47 Link Road looking along the main HNRFI western estate road.

Different cladding types have also been proposed to subtly distinguish between the different internal functions within the building. The approach to the design of the main office elevations being to create a high-quality business park environment, using areas of glazing to clearly emphasise prominent entrance areas, providing clear focal points, clearly visible from the approach to the buildings.

In respect of colour cladding options, the appearance of nearby employment parks were considered and used for comparison.

The service elevations will be a case of form following function with loading doors for level and dock access. However, the materials are consistent in both colour and form with the rest of the building.

7. DESIGN PRINCIPLES

7.1 Building Form, Materials and Colour cont.

The roof form is another key component to the success of the overall design, and it is proposed to utilise a barrel-vaulted repeating roof form, that is expressed along the gable elevations with then a lower level continuous eaves detail along the flanks. This rise and fall in combination with its dark Anthracite cladding beds the design into the landscape when seen from the long views whilst creating a striking quality image when viewed from close.

Fig.47. Illustrative example of application of design principles roof form.

It is intended that the various buildings will be designed to follow a design theme, thereby creating a campus style environment and to create a cohesive and refined appearance which will sit comfortably within the surroundings and provide a sensitive backdrop to the site landscaping.

It is proposed to use a combination of coated profiled metal cladding panels on the roof and the main facades but utilising them in a different orientation at the top of the building to the lower part to add both interest and texture as well as providing alternative shadowing responses. In addition, flat metal composite panels will be utilised on both the main industrial component vertically, and horizontally on the offices, again for interest and to break up the potential for long slab-sided elevations.

Fig 48. Illustrative application of design principle materials and colour

Finally, large, glazed curtain walling panels will be incorporated into the main building facades to increase the quality feel, add additional visual interest and break up the overall mass whilst at the same time improving the amount and quality of natural daylight within the buildings.

By breaking up the elevations into multiple components of differing materials, incorporating a change in horizontal and vertical emphasis and by having a barrel vault repeating roof form the buildings can be integrated successfully into the long views especially when providing the mixed colour roof cladding as well, but when seen from closer public environs the buildings have significant variety and interest to create the high quality business park aesthetic that is sought by the client and potential occupiers.

The design of the building has also incorporated sustainable materials and features to reduce CO2 emissions.

7. DESIGN PRINCIPLES

7.2 Car Parking Design

Car parking will be provided on each development site to respond to the use class as well as reflecting the institutional requirements demanded by individual occupiers.

The car parking will have block paviors to the circulation routes with tarmacadam parking bays with white bitumastic paint delineation.

The car parking areas will be laid out in aisles to avoid traffic conflicts and congestion in front of the main building entrances. Pedestrian routes through the car parking areas will be arranged to link safely and conveniently with building entrances, with appropriate lighting.

Each individual development site will incorporate the provision of EV charging facilities to 20% of the total parking bays with provision designed in to connect the balance of the parking in the future as take up of electric vehicles increases.

7.3 Cycle Parking

Covered cycle parking shelters will be provided on the site for cyclists. Cycle shelters will be conveniently located close to the entrance of each of the buildings to provide cyclists a safe, secure, convenient and well-lit facility.

7.4 Servicing Design

The deep service areas will be accessed separately from the car parking access points via a security entrance and located on the long facades of all the units in line with good practice for developments of this type and occupiers needs.

The yard will be surfaced in concrete for robustness and have a secure fence to the full perimeter with appropriate lighting for operational, security and health and safety purposes.

It is also important that service yards are large enough to provide sufficient space to comfortably turn articulated vehicles, so that they can reverse onto the loading doors and leave the service area in a forward direction.

Where possible the service areas will be located away from the sensitive receptors and make use of the buildings to screen the impacts emanating from their use.

7.5 Hard Landscaping

The parks hardstanding materials cover the robust elements of the development and are specified to be appropriate to their location and purpose.

The main estate roads and combined footpath / cycleways will have a tarmac surface with bitumastic white line delineation to direct and segregate the traffic flows. Any pedestrian crossings will be complete with drop kerbs and tactile paving to ensure use by all visitors to the site.

The footpaths within the development plots themselves will be a combination of paving slabs and concrete, with paving slabs being used to the ‘front of house’ areas and concrete to the rear of the warehouse blocks where a more robust service for access and maintenance is required.

The car parking areas will have block paviors to the circulation aisles and tarmac with bitumastic white lining to the parking bays including all designation bays such as disabled parking and electric vehicle charging bays.

The service areas will be in a brushed finished concrete appropriate to the hard-wearing activities and use they are subject to.

Fig. 49 Illustrative application of external parking areas,

7. DESIGN PRINCIPLES

7.6 Park trail and Well Being Zones

In addition to the combined footpaths and cycleways and making use of the proposed footpaths and bridleways through the perimeter landscaping, it is proposed that there will be a park trail, and as it meanders around the development plots and into the soft areas these will be formed in a hard compacted gravel finish appropriate for use by all users.

This park trail will break out into well-being zones located around the whole site and be for the benefit of the public and employees alike. These well-being zone will include activity / exercise equipment and amenity seating areas and be set on localised hardstanding areas to ensure both safe use and access.

Fig. 50 Illustrative Activity Hub

Fig 51. Illustrative Social Space Seating

7.7 Development Signage

It is proposed that the site will also be complete with occupier and development signage for identification and directional purposes, as well as creating a sense of place and purpose.

7.8 Security Fencing

The security fencing on the park is proposed only to the perimeter of the Railport and the service areas of the distribution buildings in the absence of any known occupier requirements, who may, by virtue of their operations require a higher degree of security and include further areas such as the frontage parking within a secure zone. The design of fencing needs to deter potential breach whilst being open in appearance to allow views through to soften its appearance, improve natural surveillance and allow it to blend within its setting. Based on these criteria the proposal would be for green paladin security fence between 2.4m and 3.0m complete with matching gates, that would be appropriate to the Railport and distribution buildings alike.

Fig 52. Illustrative example of 2.4m high paladin security fence

7. DESIGN PRINCIPLES

7.9 Security

It is important that any development responds to the issues relating to security, such as criminal and anti-social behaviour, by incorporating such design features as listed below:

- Barriers to service area entrances to provide out of hours security.
- Paladin security fencing to the full perimeter of the Railport and service areas complete with matching gates.
- Secure parking for cycles located in highly visible and supervisable locations.
- External lighting designed to BS 5489 and BS 12464 to achieve appropriate levels of illumination in all areas.`
- Good natural surveillance of parking and pedestrian areas, including footpaths and cycleways.
- Buildings of robust construction.
- All external doors fitted with secure frames and locks.
- Ability for occupiers / owners of individual units to fit CCTV with internal and external monitoring.