Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Environmental Statement
Volume 1: Main Statement

Chapter 4: Site selection and evolution

Document reference: 6.1.4

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 Regulation 14

This document forms a part of the Environmental Statement for the Hinckley National Rail Freight Interchange project.

Tritax Symmetry (Hinckley) Limited (TSH) has applied to the Secretary of State for Transport for a Development Consent Order (DCO) for the Hinckley National Rail Freight Interchange (HNRFI).

To help inform the determination of the DCO application, TSH has undertaken an environmental impact assessment (EIA) of its proposals. EIA is a process that aims to improve the environmental design of a development proposal, and to provide the decision maker with sufficient information about the environmental effects of the project to make a decision.

The findings of an EIA are described in a written report known as an Environmental Statement (ES). An ES provides environmental information about the scheme, including a description of the development, its predicted environmental effects and the measures proposed to ameliorate any adverse effects.

Further details about the proposed Hinckley National Rail Freight Interchange are available on the project website:

http://www.hinckleynrfi.co.uk/

The DCO application and documents relating to the examination of the proposed development can be viewed on the Planning Inspectorate's National Infrastructure Planning website:

https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/hinckley-national-rail-freight-interchange/

Chapter 4 ◆ Site selection and project evolution

INTRODUCTION

4.1. The EIA Regulations 2017 [1], state that the ES shall include:

'a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment'.

4.2. This chapter explains how the Applicant identified a site for a SRFI. It begins by looking at the regional context and outlines the options that the Applicant considered in terms of alternative locations. It then outlines the consideration that the Applicant has given, guided by consultation feedback and the EIA process, to the design, size and scale of the development. The chapter concludes with a summary of the options that were considered for off-site highway enhancements and the reasons for those that form part of the application explained.

CONTEXT

4.3. As paragraph 2.57 of the NPS acknowledges, most intermodal freight interchanges are located in the Midlands and North of England. These are hub regions both for the strategic road and rail networks and the UK economy that these networks serve. These regions also enjoy direct rail access to a range of large ports through which containerised goods pass.

4.4. Chapter 3 of this ES (document reference 6.1.3) fully describes the purposes of a SRFI and explains how the HNRFI would be constructed and how it operates.

Growth areas in Leicestershire

4.5. 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 and drawing upon evidence from the *Leicester and Leicestershire Distribution Sector Study (November 2014)*[2] as updated by the *Wider Market Developments: Implications for*

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[1] *Section 14(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (S.I. No. 572 2017)* http://www.legislation.gov.uk/uksi/2017/572/pdfs/uksi_20170572_en.pdf

[2] http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwjw-bTo-JTcAhXOKlAKHfDXCgYQFgg1MAE&url=http%3A%2F%2Fwww.blaby.gov.uk%2FEasySiteWeb%2FGatewayLink.aspx%3FalId%3D11928&usg=AOvVaw1bZG6nZaaACrPyyJ7vcYDA

Leicester and Leicestershire (Jan 2017)[3], and from the *Leicester and Leicestershire Enterprise Partnership's Strategic Economic Plan 2014-20* (March 2014)[4] (LLEP-SEP), 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 in order to support their local economic performance.

4.6. As shown in Map 4.1 (overleaf), the LLEP-SEP identifies five priority Growth Areas as follows:

- Growth Area 1 (GA1) - the Leicester urban area (based on the Waterside and Abbey Meadows Strategic Regeneration Area);
- Growth Area 2 (GA2) - East Midlands Enterprise Gateway (based on the East Midlands Gateway Strategic Rail Freight Terminal);
- Growth Area 3 (GA3) - Coalville Growth Corridor (based on improving the A511 corridor to bring forward already-planned developments);
- Growth Area 4 (GA4) - Loughborough (based on the Loughborough University Science and Enterprise Park for bio and pharmaceutical research and development);
- Growth Area 5 (GA5) – South West Leicestershire, in which the proposed HNRFI is situated.

4.7. According to the LLEP-SEP (pp 48-9):

'The South West Leicestershire Growth Area offers a unique combination of key commercial and employment hubs. These provide the opportunity to harness major employment and housing opportunities for Leicester and Leicestershire. The M1 corridor (including the M69/M1 Junction 21 location) and A5 corridor are crucial economic areas in their own right, with established and expanding services, distribution, retail and leisure roles providing thousands of jobs for the sub-region.

The area is also the major gateway to the Leicester Urban Area. Major Sustainable Urban Extensions and Strategic Employment Sites can create 9,000 new homes and 21 hectares of commercial development at New Lubbesthorpe, Earl Shilton and Barwell SUEs.

The success of these significant opportunities depends largely on the delivery of supporting infrastructure. Such investment, alongside other key initiatives such as the major upgrading of the Nuneaton-Felixstowe freight line, will also open up longer term growth potential in this area.'

[3] http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwi2wKKA-pTcAhWRbVAKHTsMCgEQFggvMAA&url=http%3A%2F%2Fwww.harborough.gov.uk%2Fdownload%2Fdownloads%2Fid%2F3102%2Fwider_market_developments_final_report_jan_17pdf.pdf&usg=AOvVaw1p5FvtNG2n_80Lk4OM2PFP

[4] https://www.llep.org.uk/wp-content/uploads/2015/03/SEP_-_full_document.pdf

Map 4.1: Growth areas identified in the Strategic Economic Plan 2014. The route of the Felixstowe to Nuneaton strategic rail freight route (F2N) across Leicestershire is shown diagrammatically as a red line crossing east-west through Leicestershire

4.8. The importance of the Felixstowe to Nuneaton (F2N) strategic rail freight route improvements is recognised in both the Leicester and Leicestershire Strategic Distribution Sector Study 2014 5 and the LLEP-SEP, with the latter commenting in para. 3.49 that:

'Freight connectivity will be substantially enhanced by the upgrade of the Nuneaton-Felixstowe freight railway line which will significantly increase freight capacity through accommodating longer trains up to 750m and larger shipping containers. This route passes

[5] The importance of the F2N strategic rail freight route is acknowledged similarly in the 2021 update of this report entitled *Warehousing and logistics in Leicester and Leicestershire: managing growth and change* (GL Hearn, April 2021): https://www.nwleics.gov.uk/files/documents/warehousing_and_logistics_in_leicester_and_leicestershire_managing_growth_and_change_april_2021/Warehousing%20Report%20Leics%20FINAL%2027%2004%2021%20V2%20%28Corrected%29.pdf

through the Growth Area'.

4.9. In May 2015 the Leicester and Leicestershire Enterprise Partnership (LLEP) published Logistics & Distribution Sector Growth Action Plan 6 which states on page 16 under the heading Rail Interchange:

'The LLSDSS researched the baseline position, key challenges and plans for growth within the LLEP area and established that the development of new, ***commercially-attractive sites directly served by rail is of upmost importance for Leicestershire*** *to remain one of the strategic locations for Logistics and Distribution. Currently Leicester and Leicestershire remains the 'location of choice' for national distribution centres (NDCs) and regional distribution centres (RDCs) with an estimated 7:3 ratio between the two. This ratio is significant as it demonstrates that the South East Midlands, of which Leicestershire is part, is a favoured location for national distribution operations due to its central location and that a driver can take inbound and / or outbound cargo from both deep-sea and Dover Straits ports within a shift' (*original emphasis).

4.10. The Applicant recognised that an SRFI on the F2N strategic rail freight route ideally within GA5, South West Leicestershire Growth Area, 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.

4.11. 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.

4.12. West of Leicester, whilst catering for passenger trains, Network Rail has substantial capacity for freight having allowed for the Midland Engine's aspirations for significantly increased passenger services 7.

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[6] https://www.llep.org.uk/strategies-and-plans/sector-growth-plans/distribution-and-logistics-sector/

[7] The Midlands Engine is a coalition of Councils, Combined Authorities, Local Enterprise Partnerships (LEP), Universities and businesses across the region, working to build a collective identity that will enable its members to present the Midlands as a competitive and compelling offer that is attractive to inward investment.

4.13. Other studies which have since emerged as the HNRFI has been in development. Each study demonstrates the case for delivering an SRFI in the location selected, they are as follows.

- Midlands Connects. This study outlines the Freight Routemap for the Midlands referencing directly HNRFI. https://www.midlandsconnect.uk/media/1891/mc-freight-routemap-summary.pdf

- Leicester and Leicestershire Authorities report by GL Hearn and MDS Transmodal: Warehousing and Logistics in Leicester and Leicestershire: Managing growth and change. This study forecasts a need of 2,570,000 square meters of warehouse floorspace in the region by 2041. https://www.nwleics.gov.uk/files/documents/warehousing_and_logistics_in_leicester_and_leicestershire_managing_growth_and_change_april_2021/Warehousing%20Report%20Leics%20FINAL%2027%2004%2021%20V2%20%28Corrected%29.pdf

- Williams Rail Report - Great British Railways The Williams-Shapps Plan for Rail. This plan provides a need for rail freight development, stating that rail freight is essential in securing economic, environmental and social benefits for the nation. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/994603/gbr-williams-shapps-plan-for-rail.pdf.

- Joint study by Network Rail and National Highways: Solent to the Midlands Multimodal Freight Strategy – Phase 1 2021. The purpose of this study was to develop a long-term strategy for the movement of freight along the Solent to the Midlands corridor. https://www.networkrail.co.uk/wp-content/uploads/2021/07/Solent-to-the-Midlands-Multimodal-Freight-Strategy-Phase-1-June-2021.pdf

CONSULTATION

4.14. Table 4.1 provides a copy of comments received in the 2020 Scoping Opinion (ES Appendix 6.2 - document reference 6.2.6.2) and documents the approach that has been taken in including these within this chapter.

Table 4.1 Scoping Opinion comments and a summary of responses

2020 Scoping Opinion Comment	Summary of response
Describe the reasonable alternatives (development design, technology, location, size and scale) relevant to the proposed project and its specific characteristics, and indicate the main reasons for selecting the chosen option, including a comparison of the environmental effects.	This chapter outlines the site options appraisal criteria before providing an assessment of the site options and the choice of site. The options considered throughout master planning and the alternative link road and off-site highway improvements are reported and assessed in environmental terms.
Provide details of the reasonable alternatives studied and the reasoning for the selection of the chosen option, including a comparison of the environmental effects.	

4.15. Consultation with the regulatory authorities and the public were made following submission of the PEIR. Regulatory authority comments are provided in Table 4.2 and themes raised by the public are noted below.

Table 4.2 Section 42 Consultation comments

Consultee	Consultee Comment	Response
Blaby District Council	Blaby Council agreed with criteria and principles used in assessing location options. The council did however have a number of comments on the content of Chapter 4, including: • Site selection and the reasons for discounting options. • Questioning whether all alternative sites have been explored. • Consideration of the masterplan layout.	This chapter has been updated to include detail on all the points raised. The methodology behind site selection is documented within this chapter. It explains that an SRFI site needs to fulfil key NS criteria. Further information has been given with regards to the masterplan layout. Content on environmental assessment has been provided. Bypass Options A and B are discussed within this chapter. These

Consultee	Consultee Comment	Response
	• Concerns with regard to traffic volumes through Stoney Stanton and Sapcote.	options have been re-reviewed in light of the modelling data. The modelling demonstrates that the volumes are not high enough to justify a full bypass.
Hinckley and Bosworth Borough Council	The site selection and project evaluation should be closely guided by consultation feedback and the EIA process before concluding that the design, size, and scale of the development is able to align itself with National Policy. Concerns are raised on the lack of information and assessment on alternative sites – even despite the masterplan process – and secondly whether in cumulative terms development of similar scale across the region has been given sufficient weight in the evaluations. All of the sifting exercise lacks much in the way of depth of analysis where most of the underlining data does not appear to have reached a point of maturity. Lack of comparative technical analysis on the other sites at: Brooksby, Syston Junction / Fosse Way, Barkby Lane, Whetstone, Littlethorpe and Croft.	This chapter provides detail on how consultation has fed into the design process. Alternative sites were considered and tested. This is outlined within the chapter. Other sites clearly fail requirements and therefore a deeper analysis is not required. A full cumulative impact assessment is provided in Chapter 20 of this ES (document reference 6.1.20). Cumulative effects were not a consideration in the assessment of alternative sites. It is for the developer to select sites for SRFIs using its expertise, and the expertise of the project team in the context of the policy guidance set out in the NPS. This judgement can be formed without necessarily undertaking extensive and detailed assessment of alternative sites.
Stoney Stanton Parish Council	It would appear potentially that a bypass to Sapcote needs to be included, and if the B4114 at Narborough and Sharnford are also secondary major issues, perhaps additional bypasses in order to enable the development to	Traffic modelling has identified a need for modifications to several junctions on the local road network, in response to the different traffic flow pattern resulting partly from the HNRFI and principally from the M69 Junction 2 upgrade, which will

Consultee	Consultee Comment	Response
	appropriately come forward. This approach seeks to reinforce the suggestion that alternative sites may be much better suited to accommodate employment of the scale proposed.	change the pattern of traffic flows in the locality. Affected highways and the works potentially required are listed in Table 3.2 of Chapter 3: *Project description* and shown in Figure 3.3 (document reference 6.3.3.3). As explained in Chapter 8: *Transport and traffic* of this ES (document reference 6.2.8), the list in Table 3.2 is considered to be representative of what is required to mitigate the impact in the professional judgement of the consultant team. An appraisal of the seven potential SRFI locations is provided within this chapter, it includes a review of rail and road accessibility.
Huncote Parish Council	This proposal doesn't seem to yet offer sufficient evidence and justification to sway thinking that the presently proposed scheme has been sufficiently prepared to offer appropriate, and easily accessible alternative travel routes.	
Ullesthorpe Parish Council	The Parish Council believes that the traffic data is inadequate and unconvincing. There are no proper traffic studies and no examination of the impact on the wider road network. Ullesthorpe Parish Council urge further traffic studies to be undertaken and more suitable alternative sites to be explored.	Traffic modelling has been updated following consultation. For full details on methodologies refer to Chapter 8: Transport and traffic (document reference 6.1.8).
Natural England	We welcome the inclusion of the Public Rights of Way Appraisal and Strategy, which shows the PRoW which will be lost as a result of the development, and sets out the intentions to create alternative routes through the site as well as through the wildlife area to the SW of the site. The diversion of footpaths through the wildlife area	Feedback noted. The proposed closure, diversion and creation of public rights of way (PROW) and permissive amenity routes on the Main HNRFI Site are shown in Figures 11.13 and 11.14 of this ES (document reference 6.3.11.13 and 6.3.11.14).

Consultee	Consultee Comment	Response
	will play a role in maintaining the rural character of these PRoW and provide a greenspace resource for users of the site.	
Aston Flamville Parish Meeting	Justification of Site Location: no known ”anchor tenants” or markets served by this RFI are identified. The inclusion of “National” in the project title implies a National Distribution Centre, so why are the only alternative sites considered located in South Leics. There are many RFI’s located within 30-40 miles of HNRFI, with significantly better road and market connections so is this development really necessary?	The Strategic Economic Plan 2014 to 2020 (SEP) for Leicester and Leicestershire identifies that the lack of suitable land *for ‘our most land intensive priority sectors (logistics and manufacturing)’* is a major risk to the economy. The SEP states that the A5 Corridor close to the HNRFI and within the South West Growth Area is identified as playing a ‘pivotal role’ in supporting ambitions for the logistics sector. The Warehousing and Logistics in Leicester and Leicestershire: Managing growth and change (amended 2022) forecasts a need of 2,570,000 square meters of warehouse floorspace by 2041 (para 7.67). This suggests that there is a strong demand for SRFI in Leicestershire in addition to the East Midlands Gateway and East Midlands Distribution Centre SRFI schemes. The DCO application includes a Market Needs Assessment (document reference 16.1).

4.16. Section 47 responses noted the following themes. A response to these key themes regarding how they have been considered within this chapter is provided in Table 4.3.

Table 4.3 Section 47 Consultation comments

Section 47 Consultation themes	Response
Consideration of alternative sites with opportunities to serve existing production companies, with improved connections to the existing rail network and other infrastructure such as power stations and airports. Suggestions included locating the SRFI at: • Water Orton • Magna Park • East of Birmingham • East Midlands Airport / Gateway / M1 J24 / Castle Donnington • Daventry • Rugby • Crick • DIRFT • South of Leicester • South of the M69 • South of the A5 • Peterborough • Toton • Ratcliffe on Soar Power Station	HNRFI will form a critical part of the Midlands rail freight terminal network, with particularly significant importance for port traffic to and from manufacturers and retail and e-tail distribution networks. Its position on the Felixstowe to the Midlands and the North (F2MN) line means it will be able to run very efficient rail services, maximising the shift from road to rail, off the national road networks. Being next to the M69 Junction 2 means the bulk of the onward distribution will be on the national network, unless serving a very local business. Paragraphs 4.83 – 4.89 of the NPS provide specific policy guidance on the assessment principles for SRFI, including their function, locational requirements and scale and design. This policy advice was taken into account in the Applicant's assessment of locations and design option. An appraisal of the seven potential SRFI locations is provided within this chapter, it includes a review of rail and road accessibility. The Strategic Economic Plan 2014 to 2020 (SEP) for Leicester and Leicestershire identifies that the A5 Corridor close to the HNRFI and within the South West Growth Area is identified as playing a 'pivotal role' in supporting ambitions for the logistics sector. The Warehousing and Logistics in Leicester and Leicestershire: Managing growth and change (amended 2022) forecasts a need of 2,570,000 square meters of warehouse floorspace by 2041 (para 7.67). This suggests that there is a strong demand for SRFI in

Section 47 Consultation themes	Response
	Leicestershire in addition to the East Midlands Gateway and East Midlands Distribution Centre SRFI schemes. The DCO application includes a Market Needs Assessment (document reference 16.1). DIRFT and HNRFI do not compete as both offer services and routes for different logistics, DIRFT for Fast Moving Consumer Goods with a Domestic and European focus, with HNRFI having a strong deep sea as well as short sea offer ideal for slower moving goods and relevant to the market area it will serve.
Alternative locations in a more urban or industrial setting rather than in the countryside. There was also the suggestion to build on a brownfield site.	The NPS has specific policy requirements for the siting of an SRFI site. Principally SRFIs need to: • be able to accommodate both rail and non-rail activities; • be appropriately located relative to the markets they will serve; • have good road access as this will allow rail to effectively compete with and work alongside road freight to achieve a modal shift to rail; • have adequate links to the rail and road networks (NPS paragraph 4.85); and • be located on a railway with a gauge capability of W8 or more (NPS paragraph 4.85). Due to these requirements, the NPS notes that countryside locations may be required (NPS paragraph 4.84).

Section 47 Consultation themes	Response
	The physical criteria for a modern intermodal rail freight terminal, with trains up to 775m long with associated rail connected development, means that nationally, brownfield sites are rarely able to accommodate an SRFI. There are none available in this area. An appraisal of the seven potential SRFI locations is provided within this chapter, it includes a review of rail and road accessibility.
Enough rail freight interchanges in the area already. There are other rail connected hubs with spare capacity.	Birch Coppice, Hams Hall, East Midlands Gateway and Prologis Park are all fully let. Northampton Gateway and DIRFT serve different markets to HNRFI, as will West Midlands Gateway. This is in part location and part because of the rail routes. East Midlands Gateway the latest terminal to open, which filled much faster than anticipated, with 100% of the occupiers using the rail terminal. There is no available development space for occupiers to locate next to a rail terminal at an existing or planned SRFI in the Midlands, that is on the F2MN line, with direct links to Felixstowe, the country's largest deep-sea port, as well as easy access to virtually every other major port. This is very important for the Midlands export and import markets and particularly the Coventry to Leicester catchments. The Leicestershire Logistics Study and previous iterations have consistently concluded the need for rail terminal capacity to be increased and HNRFI meets that identified need, in a location where it can be most useful to the Midlands Engine market, on the border with the West Midlands. Work

Section 47 Consultation themes	Response
	has been undertaken to validate the demand for space and this identifies that the drivers for even more space have increased considerably, following the move to more internet shopping during and post pandemic; as well as more near shoring of stock to create resilient supply chains, as a result of geopolitical pressures.
Expand other rail hubs	HNRFI will form a critical part of the Midlands rail freight terminal network, with particularly significant importance for port traffic to and from manufacturers and retail and e-tail distribution networks. Its position on the Felixstowe to the Midlands makes it an exceptional location to serve its own market area and act as a rail hub for consolidating flows between regions and ports. No other SRFI can do this.
Locations to best minimise the movement of freight, goods and food to minimise CO2 generation during transport.	As above, SRFIs need be appropriately located relative to the markets they will serve. The DCO application includes a Market Needs Assessment (document reference 16.1). An appraisal of the seven potential SRFI locations is provided within this chapter, it includes a review of rail and road accessibility. HNRFI is in the centre of the market it will serve and form a critical part of the Midlands rail freight terminal network, with particularly significant importance for port traffic to and from manufacturers and retail and e-tail distribution networks. Its position on the Felixstowe to the Midlands makes it an exceptional location to serve its own market area. It can act as a rail hub for consolidating flows between regions and ports.
The development should not be happening next to Burbage common	Burbage Common is being protected and mitigations have been put in place. The complexity and practical requirements of an

Section 47 Consultation themes	Response
	SRFI and consideration of alternative sites has not produced a suitable alternative.
Alternatives to rail and potentially better low carbon options such as the use of canals and rivers. Climate change and emissions from the development is a concern.	The need drivers for SRFIs are detailed in the NPS paragraphs 2.46 – 2.52.
Rail line already close to capacity.	Network Rail have undertaken its own study which includes the capacity for intermodal trains on this section of track and through Leicester, Peterborough and Ely and have concluded that there is capacity within the existing timetable. Part of the reason for this is freight train operators reserve multiple paths to allow them to run trains at different times, should they need to for operational reason on a day, rather than going through a difficult process to secure a short notice / emergency path. There are enough paths already to serve HNRFI at 16 trains per day.
Consideration of transport options for employees in operation.	Traffic modelling has identified a need for modifications to several junctions on the local road network, in response to the different traffic flow pattern resulting partly from the HNRFI and principally from the M69 Junction 2 upgrade, which will change the pattern of traffic flows in the locality. Affected highways and the works potentially required are listed in Table 3.2 of Chapter 3: Project description and shown in Figure 3.3 (document reference 6.3.3.3). As explained in Chapter 8: Transport and traffic of this ES (document reference 6.2.8), the list in Table 3.2 is considered to be representative of what is required to mitigate the impact.
Alternative energy sourcing on site in operation. Such as the use of solar panels.	As reported in Chapter 3: *Project description* (document reference 6.1.3) the HNRFI has a combined roof area of up to 65 hectares offering substantial potential for roof-

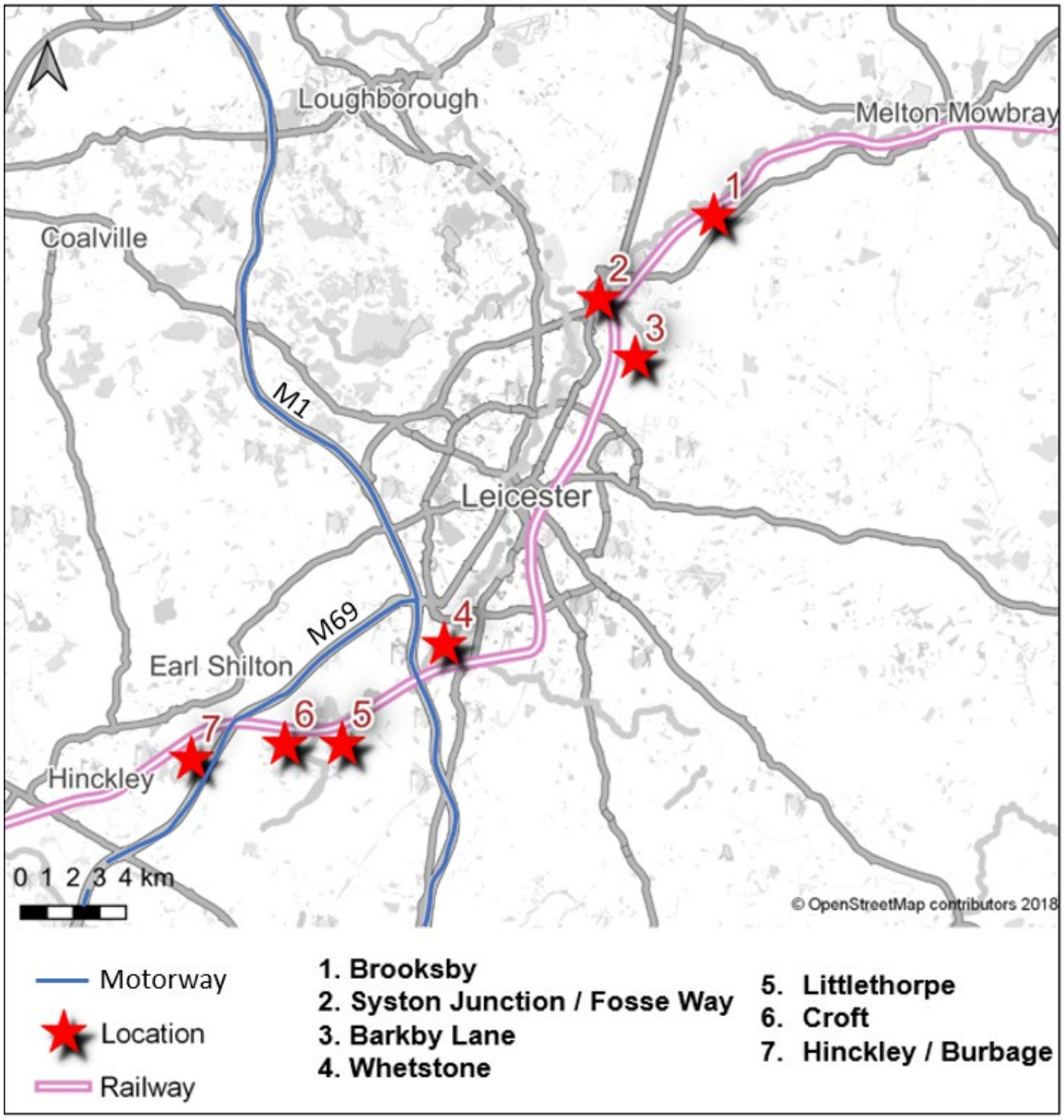
Section 47 Consultation themes	Response
	mounted solar photovoltaic installations, providing renewable electricity. All of the proposed B8 buildings on the site will be able to accommodate solar photovoltaic (PV) panels on their roofs, giving a potential electricity generation capacity of up to 47.4 MW. The electricity generated will either supply the occupier of the building or be exported to the battery storage facility in the energy centre, for subsequent use by occupiers.

SITE OPTIONS APPRAISAL CRITERIA

4.17. Paragraphs 4.83 – 4.89 of the NPS provide specific policy guidance on the assessment principles for SRFI, including their function, locational requirements and scale and design. This policy advice was taken into account in the Applicant's assessment of locations and design options.

4.18. At the outset, the Applicant's strategic rail adviser Baker Rose Consulting examined in engineering terms the potential locations on the rail network in Leicestershire that might present opportunities for a SRFI in locations on or readily connectable to the F2N strategic rail freight route, using a combination of professional knowledge of the network, local knowledge, surveys, rail network maps and aerial photographs. Along this route and on potential short spurs from it, seven potential rail locations for a SRFI were identified. These are shown in Map 4.2.

Map 4.2: Location plan of the seven potential SRFI locations appraised by the Applicant



4.19. The following criteria and principles were employed in the appraisal of the seven location options.

Rail

- Rail access to F2N strategic rail freight route to give rail connectivity to major deep-water ports of Felixstowe, London Gateway, Liverpool and Southampton, maximising opportunities for modal shift from road to rail.
- Ability to receive 775m long freight trains.
- Ability for trains to connect to the SRFI site from more than one direction.
- Availability of train paths that avoid conflicts with passenger services, with capacity for handling at least four freight trains per day.

Road

- Access to the national motorway network.
- Access to other routes in the strategic highway network.
- Access route which would not cause disturbance to neighbouring and nearby land uses.

Amenity and environmental

- Avoidance of existing residential properties and neighbourhoods and sites allocated for housing in local plans.
- Avoidance of areas likely to flood (flood zones 2 and 3).
- Avoidance of significant harm to protected environmental assets including sites and features of landscape, ecological and cultural heritage significance.
- Minimising loss of best quality soils.
- Avoiding significant policy conflict.

Commercial and economic

- A broadly level topography that minimises the need for excessive ground works.
- A tract of land largely free of built development, extending to a minimum of 60 hectares and capable of accommodating large scale warehouse development.
- Compatibility with the objectives of the LLEP-SEP, particularly the Key Areas of Opportunity designated Growth Areas.

- Compatibility with existing infrastructure.
- Avoidance of conflicts with existing rail terminals.
- The demand profile for users and occupiers.
- Proximity to a labour force.
- Potential availability of land.

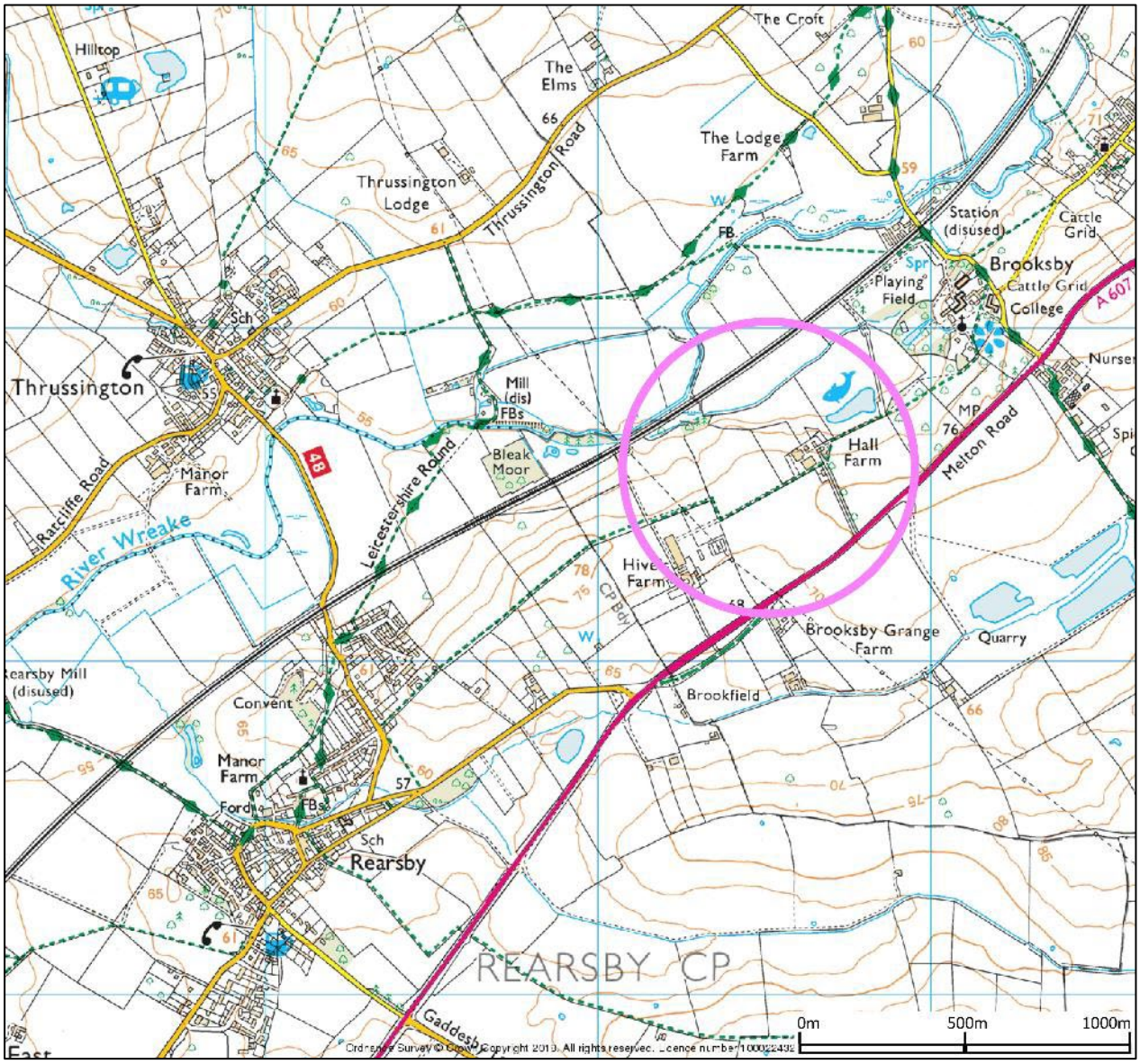
ASSESSMENT OF SITE OPTIONS

4.20. The seven potential SRFI site options or areas of interest identified will now be described in turn. A location plan is provided for each option with the general core area of the location indicated by a mauve circle of standard size. These circles are diagrammatic only and provide no indication of the area or shape of land that would be required or available should a SRFI be proposed at that location.

1. Brooksby

4.21. This option lies on farmland in the valley of the River Wreake to the west of Brooksby. The area of interest reviewed is largely in the Borough of Melton, although the municipal boundary with the Borough of Charnwood lies just to the west of Hive's Farm (see Map 4.3).

Map 4.3: Option 1 – Brooksby



Access

4.22. The A607 is a single-carriageway road, connecting to the dual carriageway A46 ring road on the northern edge of Leicester. The site is approximately 17 km from the nearest motorway junction - M1 Junction 21A to the west of Leicester that serves traffic to and from the south only - and is approximately 22 km from M1 Junction 22, which provides access in both northerly and southerly directions.

Rail link

4.23. The F2N strategic rail freight route passes close to the A607 Melton Road, the main road between Leicester and Melton Mowbray.

Flood risk

4.24. Land on both sides of the railway is in the functional flood plain of the River Wreake with extensive areas in Flood Zone 3, meaning that it has been assessed by the EA as having a 1 in 100 or greater annual probability of river flooding. The NPS (NPS paragraphs 5.105-5.109) only supports infrastructure development in Flood Zone 3 if a project constitutes 'essential infrastructure', affords wider sustainability benefits and there is no acceptable alternative site.

Heritage

4.25. Listed buildings of architectural and historic interest in Brooksby include St Michael's Church and Brooksby Hall (both grade II*). Brooksby's grade II listed railway station closed in 1964.

Landscape

4.26. The location is not subject to any protective landscape designations.

Ecology

4.27. Sections of the River Wreake and its banks are designated as a local wildlife site. The nearest designated site is the Frisby Marsh SSSI located approximately 2km north-east of the site.

Land use

4.28. Hive's Farm and Hall Farm comprise the principal groups of buildings inside the area of interest. Immediately to the east of the area of interest is Brooksby Melton College, an agricultural college.

Soil quality

4.29. According to Defra's system of agricultural land classification. Most of the land to the north of the A607 is grade 4 – poor quality agricultural land, with some grade 2 land (very good quality) close by.

Infrastructure

4.30. A pylon-mounted electricity transmission line crosses the location on a north-west to south-easterly alignment to the east of Hive's Farm.

Topography

4.31. The land to the south-east rises to a low ridge, along which the A607 runs. The railway itself is on a low embankment.

Amenity

4.32. The villages of Thrussington and Rearsby lie at a distance of 1.5 km to the west and south-west respectively. A public footpath runs through fields between Brooksby and Rearsby.

Policy

4.33. The area to the west of Hive's Farm is protected as countryside in the Charnwood Local Plan (adopted 2004).

LEP Growth Area

4.34. The site is outside of the identified LLEP Growth Areas.

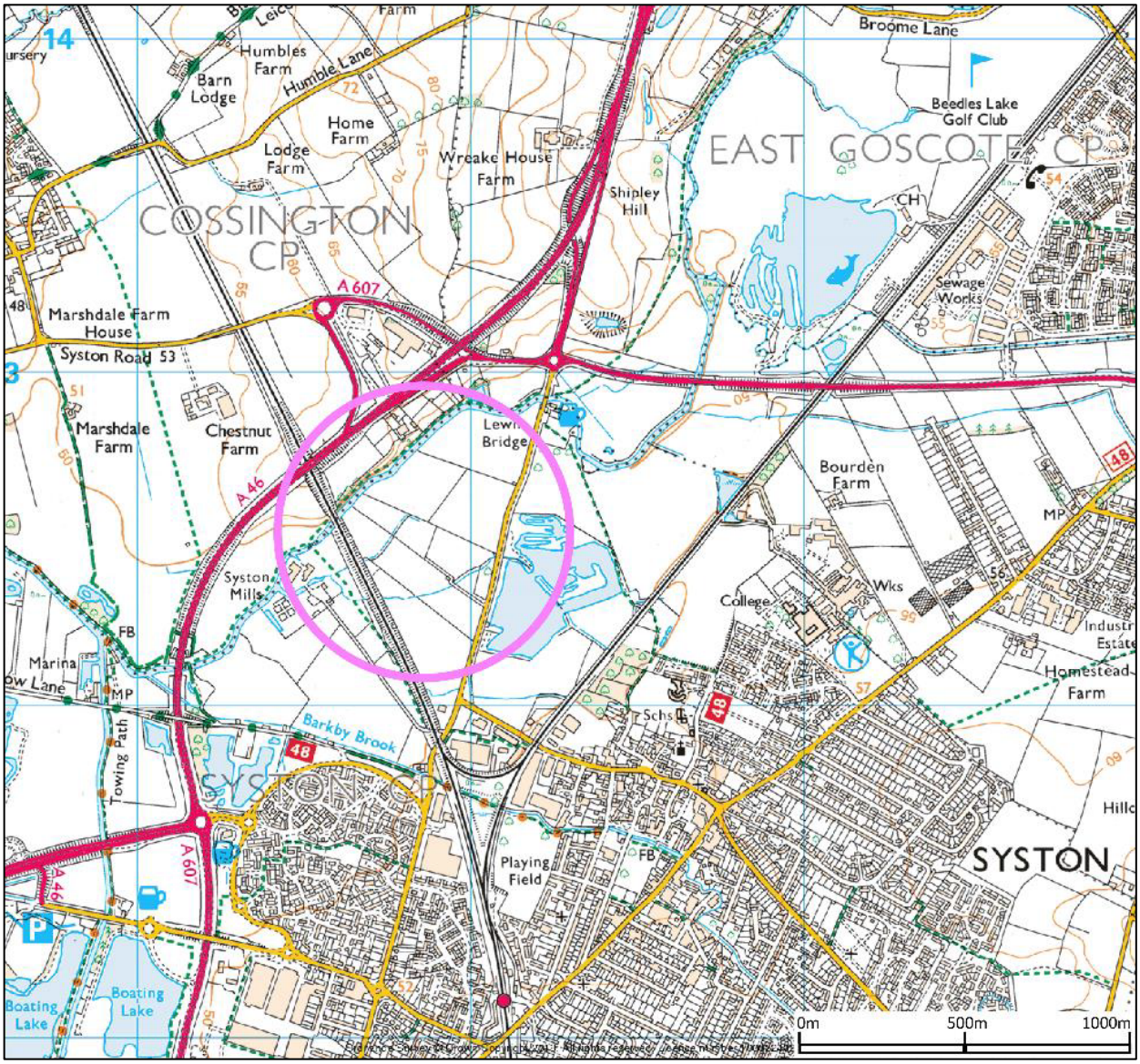
Summary

4.35. The main reasons why Brooksby is not the preferred location are its propensity to flood, its relatively poor access to the strategic highway network and its location outside of the identified LLEP Growth Areas. The site is also in conflict with the purpose of a countryside protection policy in the Charnwood Local Plan. Such a remote location would not meet occupier requirements for direct strategic road access, adding to road haulage operating costs and the associated environmental impacts.

2. Syston Junction / Fosse Way

4.36. The site is in Charnwood Borough. Charnwood Edge Business Park lies across the A46 to the north-west, and lakes used by the Roundhill Sailing Association and for angling lie immediately to the south-east. The location also features a cluster of industrial buildings at Syston Mills and a community sports pitch used by Syston Cricket Club to the west of Fosse Way.

Map 4.4: Option 2 - Syston Junction / Fosse Way



Access

4.37. The A46 dual carriageway bounds the site to the west and the A607 to the north. The site is 11km from M1 Junction 21A and 16 km from M1 Junction 22, with dual carriageway links via the A46 and A50. The Fosse Way – a Roman Road and nowadays a secondary road at this location - crosses the middle of the site and provides a link from the A46 to the

western part of Syston.

Rail link

4.38. The site is located on the north-western edge of Syston, on land inside the 'Y' formed where the F2N and Leicester to Hinckley railways branch.

Flood risk

4.39. The River Wreake runs inside the north-western and northern boundaries of site and the whole site is in Flood Zone 3, having the highest flood risk.

Heritage

4.40. Syston is a historic town with numerous listed buildings in its centre. Several sites of archaeological interest have been identified along the A46 corridor to the west of the site, and the original road bridge over the River Wreake, next to the modern bridge serving the A46, is grade II listed.

Landscape

4.41. The site is not subject to any statutory landscape designation.

Ecology

4.42. The site itself is free of environmental designations. The nearest ecological designation is the Reedbed Local Nature Reserve located approximately 1.1km south-west of the site.

Land use

4.43. The site itself is level and is largely in agricultural use.

Soil quality

4.44. Most of the locality is rated as grade 4: poor quality in Defra's agricultural land quality system.

Infrastructure

4.45. There is no electricity transmission infrastructure within or nearby the site's location.

Topography

4.46. This is an extensive area of level and low-lying open farmland.

Amenity

4.47. The town of Syston lies at a distance of 500m to the south of the site. A public footpath

runs through fields along the River Wreake.

Policy

4.48. The site is designated as countryside in the Charnwood Local Plan LLEP Growth Area.

LEP Growth Area

4.49. The site lies outside the identified LLEP Growth Areas.

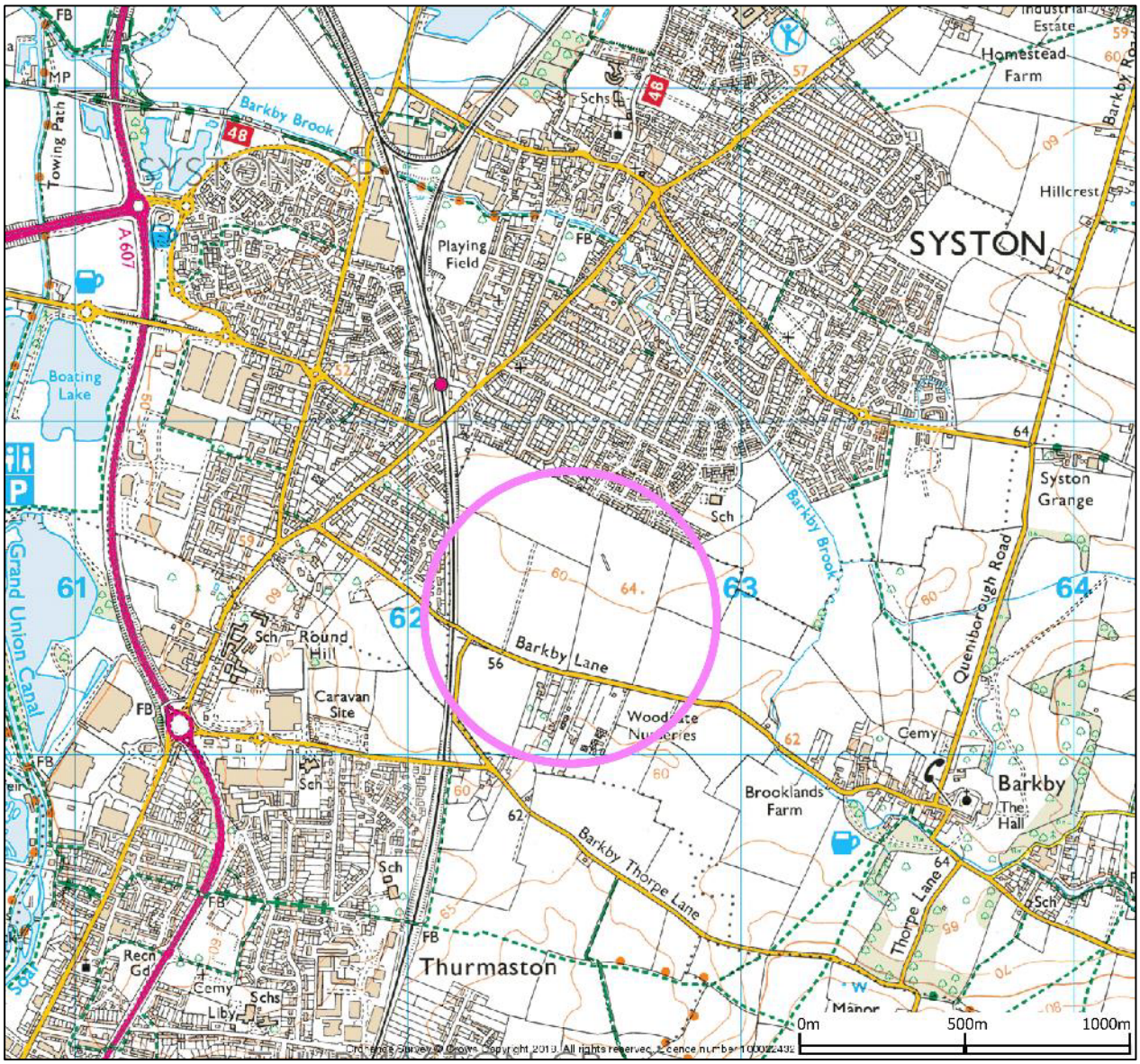
Summary

4.50. In view of the site's relative remoteness from the motorway network, its location outside a Growth Area and the adverse flood risk the location was not investigated further.

3. Barkby Lane

4.51. The site is in Charnwood Borough, between the residential suburb of Thurmaston to the west and the villages of Barkby and Barkby Thorpe to the north-east.

Map 4.5: Option 3 – Barkby Lane



Access

4.52. Road access is gained via local roads to the dualled A607 Newark Road and thence to the M1 motorway via the A46 northern ring road. By the A607 / A46 route the site is 14 km from M1 Junction 21A and 19 km from M1 Junction 22.

Rail link

4.53. A spur from the F2N strategic rail freight route would be required to provide access to this area. There is restricted access to the existing railway.

Flood risk

4.54. An extensive area of the site is in Flood Zone 2, assessed by the EA as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding.

Heritage

4.55. There are areas of archaeological interest on the site. The location is otherwise free of heritage constraints.

Landscape

4.56. There are trees subject to preservation orders in the area of interest.

Ecology

4.57. The site itself is free of environmental designations. The nearest ecological designations are the Birstall Local Nature Reserve located approximately 1.2km south-west of the site and Reedbed Local Nature Reserve 1.6km north-west of the site.

Land use

4.58. The location comprises an area of open and broadly level farmland to the south of Syston.

Soil quality

4.59. The farmland itself is rated as grade 2: very good quality and 3: good to moderate quality in Defra's agricultural land classification system.

Infrastructure

4.60. There is no electricity transmission infrastructure within or nearby the site's location.

Topography

4.61. This is an extensive area of level and low-lying open farmland.

Amenity

4.62. There are residential neighbourhoods to the west and north-east, giving rise to amenity concerns. Apart from Barkby Lane there are no public rights of way.

Policy

4.63. The Charnwood Local Plan identifies the land as countryside in a green wedge – a local plan designation that seeks to maintain open land between urban settlements, so preserving their separate identity. The Barkby Lane site has been identified as a potential site for 960 houses in the current review of the Charnwood Local Plan.

LEP Growth Area

4.64. The site lies outside of the LLEP's identified Growth Areas.

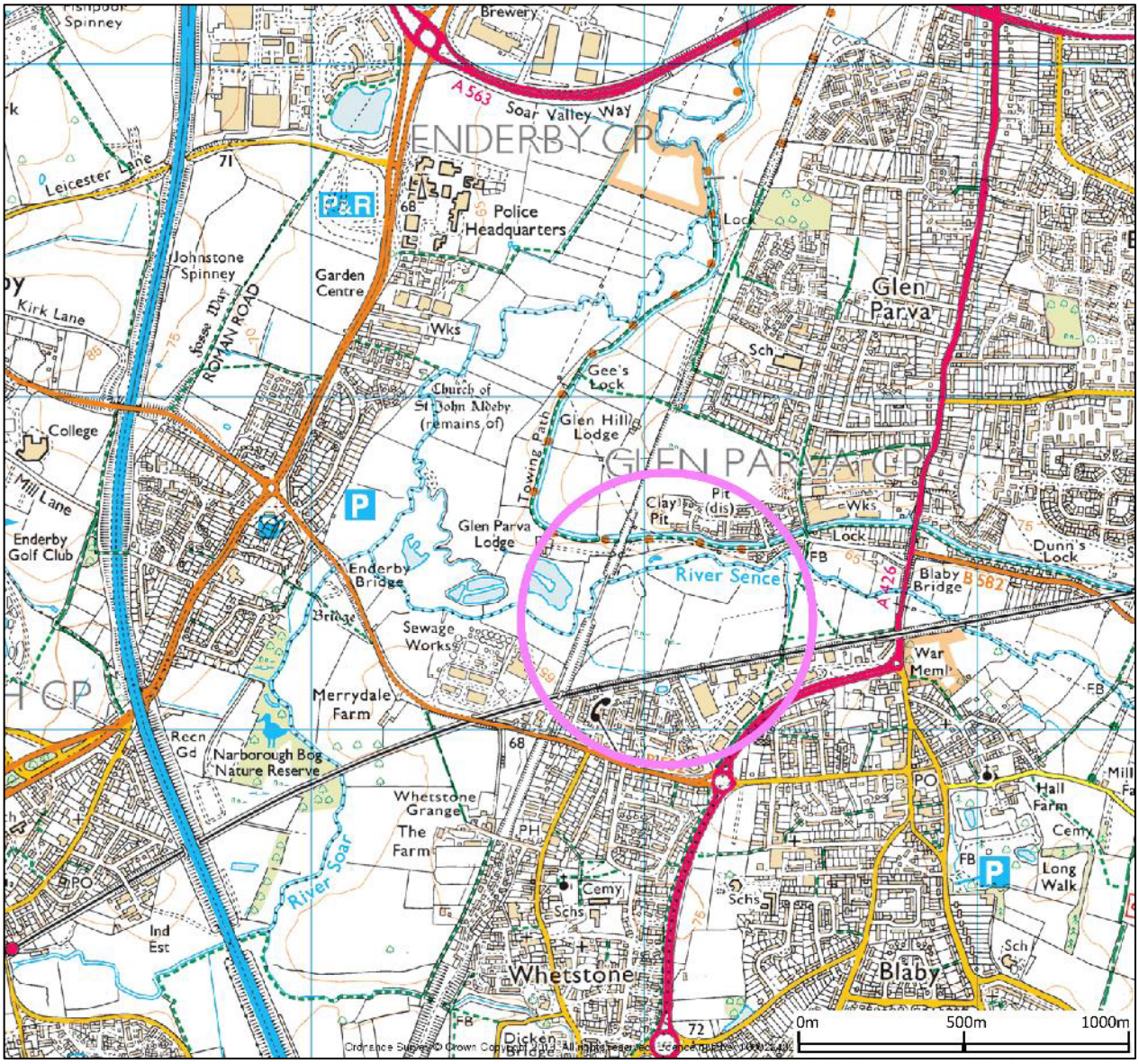
Summary

4.65. In view of its poor road access, which would not suit occupier requirements, its proximity to housing and the restricted access to the existing railway, the Barkby Lane site was not selected as the preferred location.

4. Whetstone

4.66. This option lies on the northern side of the F2N strategic rail freight route in Blaby District on the southern edge of Leicester. Whetstone and Blaby lie to the south and the suburb of Glen Parva is to the north. The River Sence forms the northern edge of the site with the Grand Union Canal a short distance beyond. Enderby Road industrial estate lies to the west.

Map 4.6: Option 4 – Whetstone



Access

4.67. M1 Junction 21, into which the M69 motorway connects, lies 2.5 km to the north-west as the crow flies, but access from the site to this Junction would at first be by single-carriageway urban roads - the B582 Enderby Road to the west or the A426 Leicester Road to the east - which connect respectively to the B4114 and A563 dual-carriageways on the

approach to M1 Junction 21.

Rail link

4.68. The existing railway passes the site on an embankment, presenting engineering and operational challenges in terms of terrain and gradient.

Flood risk

4.69. The site itself is limited in size and lies in Flood Zone 3.

Heritage

4.70. The Grand Union Canal to the north of the River Sense is a linear Conservation Area, but there is little else of acknowledged heritage interest in the immediate vicinity. The closest listed buildings are to the south in Whetstone and Blaby and to the west on the edge of Enderby.

Landscape

4.71. The location is not subject to any protective landscape designation.

Ecology

4.72. The site itself is free of environmental designations. Narborough Bog SSSI and nature reserve lies under 1 km to the west and there is a Local Nature Reserve on the western edge of Glen Parva, approximately 500m to the north.

Land use

4.73. The location comprises an area of open and broadly level farmland to the south of Glen Parva and north of Whetstone.

Soil quality

4.74. The location is classified as grade 2 and 3 agricultural land (very good and good to moderate quality) and is used for grazing.

Infrastructure

4.75. A pylon-mounted electricity transmission line crosses the location on an east to westerly alignment to the north and south of the River Sence.

Topography

4.76. This is an area of level and low-lying open farmland bordered by residential and commercial properties.

Amenity

4.77. The location is close to residential neighbourhoods in Glen Parva and Whetstone.

Policy

4.78. The Whetstone site is identified as a green wedge in the adopted Blaby District Local Plan. Development would cause the urban coalescence of adjacent settlements, in conflict with the purpose of the green wedge policy.

LEP Growth Area

4.79. The site lies in the LLEP's South-West Leicestershire Growth Area.

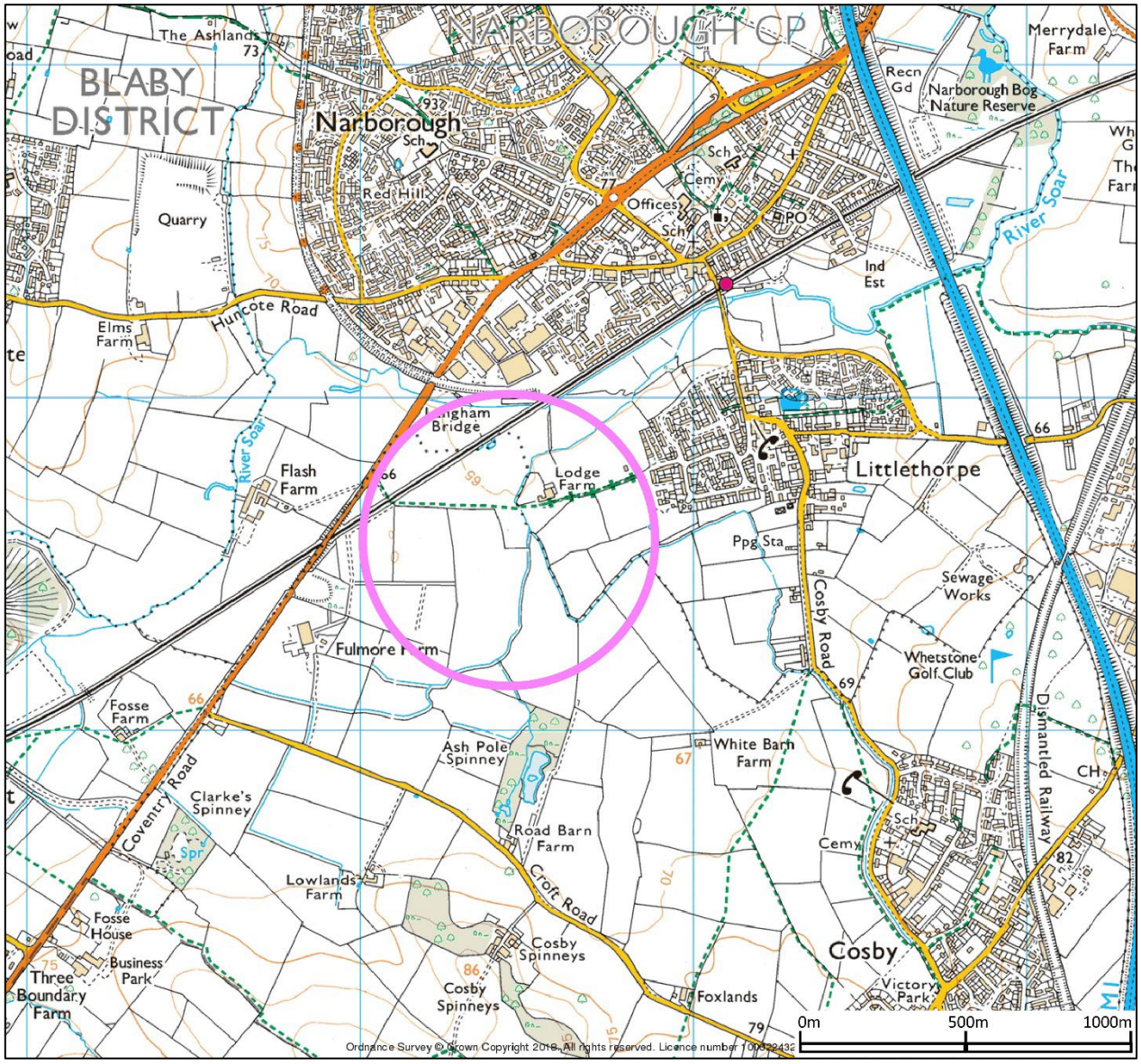
Summary

4.80. In summary the site is limited in size and lies in Flood Zone 3. It is close to residential neighbourhoods and would cause the urban coalescence of adjacent settlements, in conflict with the purpose of a green wedge policy in the Local Plan. For these reasons the option was not selected as the preferred location.

5. Littlethorpe

4.81. The area of interest is an area of farmland south of Narborough to the south-west of Leicester. The village of Littlethorpe lies to the north-east and the larger settlement of Cosby to the south-east.

Map 4.7: Option 5 – Littlethorpe



Access

4.82. Road access is restricted, being via the B4114 Coventry Road towards M1 Junction 21, a distance of approximately 7 km. From the site, the first 2.5 km of this route is single carriageway and for much of its route this road passes through urban residential areas, raising amenity concerns.

Rail link

4.83. The F2N strategic rail freight route lies on the north-western edge of the site. Rail access

is likely to be achievable only as a spur with a single aspect access.

Flood risk

4.84. The River Soar passes close to the northern edge of the site. The site has an extensive network of drainage ditches that generally follow field boundaries. Although a central area of the site is in Flood Zone 1 (i.e. land with a low probability of flooding), much of the remainder is in Flood Zones 2 and 3, placing a significant restriction on the potential for development.

Heritage

4.85. The area is free of heritage designations. The centre of Narborough to the north-east contains a Conservation Area and several listed buildings.

Landscape

4.86. The location is not subject to any protective landscape designations.

Ecology

4.87. The site itself is free of environmental designations. The nearest ecological designation is the Narborough Bog SSSI located approximately 840m north-east of the site.

Land use

4.88. The site comprises a level area of open farmland. Existing development on the site is limited to two farms, Fulmore Farm in the south-west and Lodge Farm in the north-east.

Soil quality

4.89. The farmland is rated by Defra to be a combination of grade 3 (good to moderate) and grade 4 (poor quality).

Infrastructure

4.90. There is no electricity transmission infrastructure within or nearby the site's location.

Topography

4.91. This is an extensive area of level and low-lying open farmland.

Amenity

4.92. The villages of Narborough and Littlethorpe are located within 200m to the north and west of the site respectively. The area is crossed by a footpath running westward from Littlethorpe village.

Policy

4.93. The area is subject to countryside protection policies in the adopted Blaby District Local Plan.

LEP Growth Area

4.94. The site is inside the LLEP's South-West Leicestershire Growth Area.

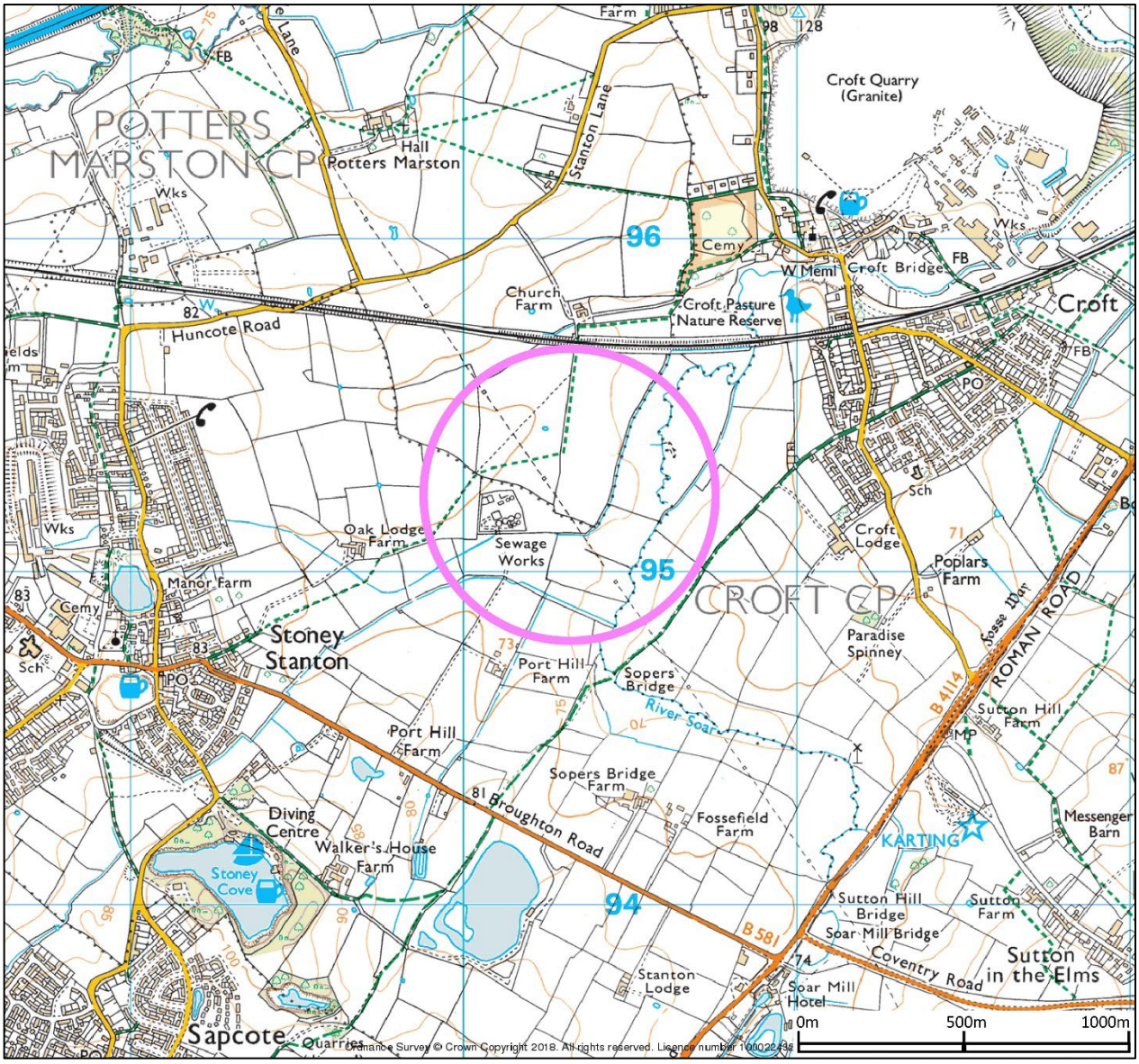
Summary

4.95. For reasons relating to the adequacy of the highway network, the impact upon residential amenity and the limited area of land available in Flood Zone 1, this site was excluded from further consideration.

6. Croft

4.96. This option lies in the Soar valley, in Blaby District. The village of Croft lies to the east and Stoney Stanton to the west.

Map 4.8: Option 6 – Croft



Access

4.97. Road access would be via the B4114 Coventry Road towards M1 Junction 21, a distance of approximately 9.5 km. From the site, the first 5 km of this route is a single carriageway and for much of its route this road passes through urban residential areas, raising potential amenity concerns.

Rail link

4.98. The site is beside the F2N strategic rail freight route. The railway passes the site in a combination of cutting and embankment with only a limited at-grade section in between. Rail access might need to be by means of a single spur.

Flood risk

4.99. The River Soar meanders across the site and is fed by minor tributaries and a swathe of land along the river corridor is in Flood Zone 3, indicating a high level of flood risk.

Heritage

4.100. There are no designated features of historic or architectural interest at the site but there are several in the wider landscape and a Conservation Area at Croft, to the north-east.

Landscape

4.101. The location is not subject to any protective landscape designations.

Ecology

4.102. The site itself is free of environmental designations. The nearest ecological designations are the Croft and Huncote Quarry SSSI, Croft Hill SSSI and Croft Pasture SSSI all located within 800m of the site to the north.

Land use

4.103. There are several farmsteads on the site and these would be displaced as a consequence of the development.

Soil quality

4.104. The farmland is rated by Defra to be a combination of grade 3 (good to moderate) and grade 4 (poor quality).

Infrastructure

4.105. High voltage electricity transmission lines cross from north-west to south-east over the centre of the site and there is also a small wastewater treatment works at the centre of the site, although a SRFI could be developed around these features. A major British Gas pipeline crosses the northern half of the site broadly from south-east to north-west, and the Blaby District Local Plan identifies a broad hazard consultation zone along the pipeline corridor.

Topography

4.106. This is an extensive area of level and low-lying open farmland.

Amenity

4.107. The site is located within 500m of two villages, Croft lying to the east and Stoney Stanton to the west. These villages are connected by a footpath that crosses the area of interest.

Policy

4.108. The site is subject to countryside protection policies in the adopted Blaby District Local Plan. The site is 'pinched' between neighbouring villages.

LEP Growth Area

4.109. The site is in the LLEP's South-West Leicestershire Growth Area.

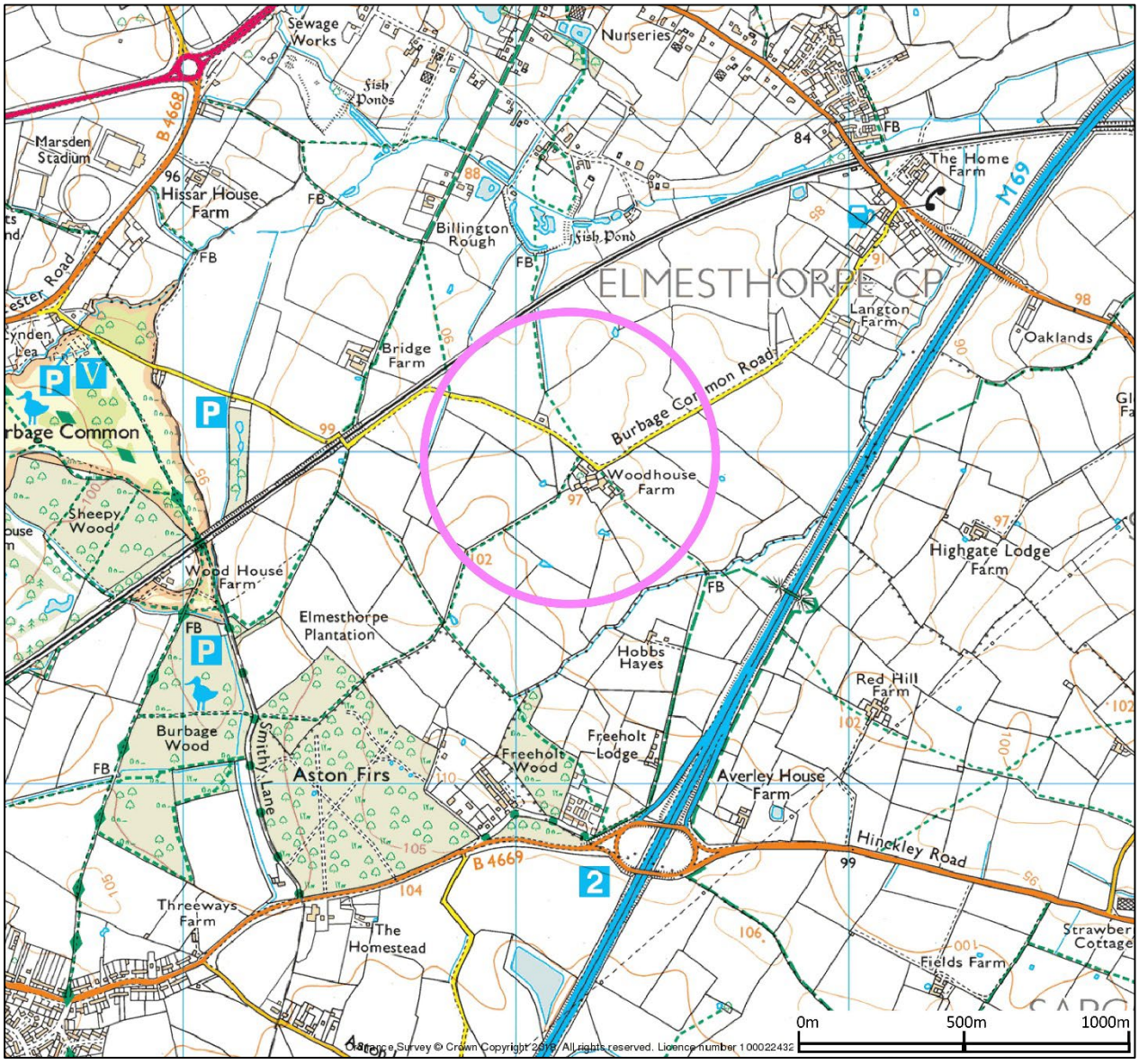
Summary

4.110. In view of the limited road and rail access, high level of flood risk and pipeline constraints and the fact that the site is 'pinched' between neighbouring villages this option was not pursued as a preferred option.

7. Hinckley/Burbage

4.111. This option lies at the south-western end of the Applicant's search corridor, in Blaby District. Settlements in the wider locality include Burbage and Hinckley to the south-west, Barwell and Earl Shilton to the north and Stoney Stanton and Sapcote to the east.

Map 4.9: Option 7 – Hinckley / Burbage



Access

4.112. The M69 motorway forms the eastern boundary of the site and links the M6 motorway and A5 to the south-west with the M1 motorway to the north-east. M69 Junction 2 lies at the southern edge of the site and affords potential for direct access to the motorway network. However, M69 Junction 2 is currently a limited access junction and lacks slip-roads to and from the M69 motorway southwards towards Coventry and the M6 motorway. M69 Junction 2 is capable of being improved in line with the LLEP Growth

Strategy to provide better access to the M69 motorway.

Rail link

4.113. The site is beside the F2N strategic rail freight route. The railway is almost at grade with the site and affords a long frontage, enabling 'on-off' sidings to be constructed if required.

Flood risk

4.114. The site is almost entirely in Flood Zone 1, in which the probability of flooding is low. Small portions of the site are located within areas of Flood Zone 2 and 3 which have a greater level of flood risk, however, it is expected that these risks can be adequately managed through design and mitigation.

Heritage

4.115. The majority of designated heritage assets in the wider area comprise listed buildings clustered in the historic cores of local settlements. These include the Church of St Mary in Barwell, 1.8 km to the north-west, a Grade I listed building.

Landscape

4.116. The location is not subject to any protective landscape designations.

Ecology

4.117. The site itself is free of environmental designations. The Burbage Wood and Aston Firs SSSI lies within 600m to the south-west. This SSSI is designated for its mixed ash, oak and maple woodland and adjoins the Burbage Common and Woods Local Nature Reserve.

Land use

4.118. The site comprises an extensive area of level and open farmland. Within the area of interest are a few farmsteads.

Soil quality

4.119. The farmland is largely classified as grade 3: (good to moderate quality).

4.1. Infrastructure

4.120. There is no electricity transmission infrastructure within or nearby the site's location.

Topography

4.121. This is an extensive area of level and low-lying open farmland.

Amenity

4.122. The closest settlements are the village of Elmesthorpe to the north and traveller and

mobile home settlements to the south. The site is crossed by a public highway, Burbage Common Road, and by a network of footpaths, two of which cross the railway by means of pedestrian level crossings.

Policy

4.123. The site is subject to countryside protection policies in the adopted Blaby District Local Plan.

LEP Growth Area

4.124. The site is in the LLEP's South-West Leicestershire Growth Area and is also lies within 'Key Opportunity Area A' for rail and road-linked distribution hubs in the LLEP-SEP.

Summary

4.125. For this combination of reasons, the site went forward for further assessment.

Overall summary

4.126. Table 4.4 below provides a high-level red, amber and green summary of the considered options against the preferred option 7 at Hinckley/Burbage. Each of the aspects considered is presented with red denoting a worsening, green denoting an improvement and amber denoting a similarity in comparison to option 7.

Table 4.4 Summary of six potential SRFI site options against option 7 at Hinckley/Burbage

Assessment aspect	Option 1 – Brooksby	Option 2 - Syston Junction / Fosse Way	Option 3 – Barkby Lane	Option 4 – Whetstone	Option 5 – Littlethorpe	Option 6 – Croft
Access						
Rail Link						
Flood Risk						
Heritage						
Landscape						
Ecology						
Land Use						
Soil Quality						
Infrastructure						
Topography						
Amenity						
Policy						
LEP Growth Area						

ASSESSMENT AND THE CHOICE OF SITE

4.127. By definition a SRFI needs direct rail access or spurs, which constrains the site search to railway corridors that were identified originally by the Victorian engineers and surveyors who designed most of the UK's railway network. To optimise locomotive performance and to minimise the need for expensive cuttings, tunnels, embankments and bridges, these engineers favoured level routes in low-lying river valleys. Railway lines were protected from flood risk through a combination of clever routing and the use of low embankments.

4.128. This legacy is clearly evident in the Applicant's review of potential SRFI sites along the F2N strategic rail freight route in Leicestershire. Most of the trackside sites that were reviewed are in areas at high risk of flooding, rendering them unsuitable for development. Only one of the potential locations reviewed presented the opportunity to largely avoid land in Flood Zones 3 and 2 – Option 7: Hinckley/Burbage. As noted above, only small portions of the site are located within areas of Flood Zone 2 and 3, however, it is expected that these risks can be adequately managed through design and mitigation

4.129. Aside from its low flood risk, Option 7 was considered to offer an optimum balance of advantages, including:

i). an ample area of open level land;
ii). sufficient at-grade rail frontage for rail connections to the main line, and the ability to accommodate trains up to 775m in length;
iii). the potential for direct road access to the strategic highway network from M69 Junction 2, with scope to add southbound slips to the Junction;
iv). separation from existing residential settlements sufficient to avoid significant adverse effects on noise and visual amenity after mitigation;
v). a comparatively low level of environmental constraint, with no designated features of landscape, ecological or cultural heritage interest inside the site;
iv). a location within the LLEP's designated South-West Leicestershire Growth Area.

4.130. The Applicant commissioned environmental consultants EDP to undertake an environmental appraisal of the Hinckley/Burbage option, including landscape, biodiversity and heritage considerations. Initial sketch schemes for a potential SRFI included land to the west and east of the M69 motorway. However, EDP considered that development to the east of the M69 motorway would have a greater effect on landscape character and visual amenity than the land contained by roads, the F2N strategic rail freight route and woodland to the west.

4.131. On this basis, the Applicant concluded that the site for the SRFI should be focused upon land between the railway and the M69 motorway, which affords the best opportunity to bring forward a SRFI meeting the policy requirements of the NPS and the practical potential to deliver a site of the scale required. Specifically, the site:

- could provide 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, which was deemed the minimal frequency for a SRFI site;
- would be able to accommodate trains up to 775m long with minimal shunting;
- would offer ample space for an intermodal terminal for rail handling and storage; and
- could include a number of rail-connected or rail-served buildings with all building users having access to the intermodal rail terminal.

MASTER PLANNING OPTIONS FOR THE MAIN HNRFI SITE

4.132. Having identified a preferred location, the Applicant has tested a range of technology, design and layout options for the site, having regard to the following requirements identified in Chapter 4 of the NPS, including:

- criteria for 'good design' for national network infrastructure (NPS pp. 36-37);
- climate change adaptation (NPS pp. 37-39);
- pollution control and other environmental protection regimes (NPS pp. 39-41);
- the identification and mitigation of potential statutory nuisances (NPS p. 41); and
- safety, security and health (NPS pp. 41-44).

4.133. Aspects under review included:

- layout options for specific parts of the site, including rail connectivity and accessibility options, the road junction on the M69 motorway, landscape and amenity areas, public rights of way and roads including the Burbage Common Road bridge over the railway, drainage and environmental mitigation;
- technology options including methods of unloading, loading and transporting freight containers around the site. At a time of technological change, the Applicant wants to ensure that the HNRFI is as far as possible 'future-proofed' and capable of serving the Midlands economy effectively in the long term;
- off-site road access;
- measures to protect local residential and environmental amenity, taking into account factors including landscape and visual effects, measures to control noise and light pollution, biodiversity, the protection of the water environment and the provision of open space and amenity routes through and around the HNRFI; and

- scale and phasing options for the development, in part reflecting market intelligence on the size of buildings logistics occupiers on the proposed HNRFI are likely to require;
- improvements to waterbody design for ecological benefit;
- connectivity of public right of ways;
- height of the proposed units and potential use of green walls; and
- extent of the draft Order Limits.

The role of master-planning

4.134. As explained in Chapter 1: *Introduction* of this ES, the DCO application seeks consent for development parameters in keeping with the 'Rochdale Envelope' approach, as opposed to detailed building designs and layouts. However, the Applicant has reviewed numerous illustrative master plan layouts to test the commercial potential of the site, its road and rail access arrangements, the likely effects on the local environment and the ability of the site to accommodate appropriate environmental mitigation.

4.135. An illustrative masterplan (Figure 3.1 document reference 6.3.3.1) provided consultees with a representative picture of what is proposed. Following consultation, the parameters plan (Figure 3.2 document reference 6.3.3.2) has been fixed to inform the definition of physical development parameters – maximum floor areas, building heights, and corridors for roads and landscape works, etc – that informed the assessment of environmental effects.

4.136. An early consideration in the master-planning exercise was to understand in detail the constraints and opportunities that the site offers. The findings of the site investigation and appraisal work undertaken are described in the baseline conditions sections of the environmental topic-based chapters of this ES. Considerations influencing the master-planning of the site included the following.

i). ***Terrain*** – 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 HNRFI Site. This has implications both for the development of large B8 buildings, which require level single-height floors, and for railway sidings, for which a level surface is desirable to help prevent freight wagons from rolling under the influence of gravity.

ii). ***Existing access and rights of way*** – the Main HNRFI Site is crossed by one public highway – the C-classified Burbage Common Road. This is a single-track country lane that provides one of two routes between Elmesthorpe and Burbage Common. As well as serving homes, farms and businesses within the Main HNRFI Site, Burbage Common Road serves as an amenity route for walkers, cyclists and horse riders in conjunction with a network of footpaths and bridleways that generally follow field

boundaries on the site.

iii). ***Proposed access to the development*** – both by rail from the Leicester to Hinckley railway, and by road.

iv). ***Residential amenity*** – taking into account considerations including noise, visual outlook and air quality. Residential properties outside but in the vicinity of the Main HNRFI Site include:

- Elmesthorpe village, a ribbon development along the B581 Station Road with additional dispersed development along the unadopted Bridle Path Road and Billington Road West to the south-west of the main village;
- Mobile home, and gypsy and traveller accommodation on several sites off Smithy Lane, close to M69 Junction 2; and
- Free-standing farmsteads including Bridge Farm, adjacent to the bridge that carries Burbage Common Road over the railway, and Highgate Lodge Farm, Red Hill Farm and Averley House Farm to the east of the M69 motorway.

v). ***Ecology and biodiversity*** – the master-planning of the site has been informed by extensive ecological surveys, described in Chapter 12: *Ecology and biodiversity* of this ES.

vi). ***Cultural heritage and archaeology*** – although published records indicated that the Main HNRFI Site is of comparatively limited historic interest, in 2018-19 the Applicant undertook extensive trial-trenching of the Main HNRFI Site in order to confirm its archaeological potential. The outcome of this site investigation work is described in the Chapter 13: *Cultural heritage and archaeology* of this ES.

vii). ***Landscape*** – viewpoints were identified at an early stage in the planning and assessment process to help the likely landscape and visual effects of the proposed development to be understood and reflected in the master-planning process. This work is described in Chapter 11: *Landscape and visual effects* of this ES.

viii). ***Drainage, ground conditions and the water environment*** – the site's ground and water characteristics were established at an early stage to ensure that the master plan took into account drainage, flood risk and land contamination. The master plan reflects the need to ensure that drainage from rooftops and hard-surfaced areas in the proposed development does not cause enhanced flood risk and contamination off site, as explained in Chapters 14: *Hydrogeology*, 15 *Surface water and flood risk* and 16 *Geology, soils and contaminated land* of this ES.

ix) ***Pre-application consultation feedback*** - regulatory authorities and the public have provided comments on the HNRFI and these have been considered during design development.

4.137. The Applicant ensured that there was a close iterative feedback between the environmental analysis and master-planning process for the project. The Applicant has reviewed a series of development layouts, the evolution of which will now be summarised.

Master Plan 2018

4.138. Figure 4.1 shows a preliminary version of the master plan for the Main HNRFI Site, produced in 2018. A strong influence on the general layout is the inherently rectilinear shape of B8 buildings and their curtilages. The layout in Figure 4.1 features the following main elements.

i). Railway sidings and a Railport for the unloading and loading of freight containers located immediately alongside the existing railway.

ii). 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.

iii). B8 buildings up to a maximum height of 23 metres above ground level and with a gross floorspace of 850,000 square metres including approximately 225,000 square metres of mezzanine floorspace, giving a gross built footprint of approximately 625,000 square metres, are arranged in rows between the railway and the motorway and with ancillary car and lorry parking and boundary landscape works and planting. Figure 4.1 includes two very large buildings and one smaller building adjacent to the Railport.

iv). A network of internal roads providing access to all areas of the site, in corridors with further landscape works and planting.

v). 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 Wood, is intended for public access for informal recreation.

vi). The draft Order Limits include land to allow for construction lay-down and access diversions.

4.139. Figure 4.2 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 shares the draft Order Limits as those in Figure 4.1 and a similar overall layout save for the redesign of the proposed open space amenity area in proximity of Burbage Wood and the adjacent building layout at the south-western corner of the Main HNRFI Site. In this option the footprint of buildings increased from approximately 625,000 square metres to approximately 640,000 square metres to maximise the available floor space.

4.140. These changes were assessed, and it was concluded that as there was no change to the Main Order Limits and the height of the buildings remained the same there was no overall

change in the nature of potential environmental effects between the two masterplans. Specifically, the nature of landscape and visual effects were considered similar between the two options as views remain broadly consistent due to no changes to landscape planting.

4.141. The evaluation of development layout options continued whilst the autumn 2018 public consultation was in progress. Figure 4.3 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 approximately 625,000 square metres. The indicative landscape arrangement for the amenity area in the south-western part of the site is also amended further, 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.

4.142. This update resulted in a slight benefit to the nature of the landscape and visual effects due to the change in screening, although there were no overall change in the nature of potential environmental effects across all other topics.

Changes to the Master Plan in response to the 2018 public consultation

4.143. 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 illustrative master plan for the HNRFI Project. The resulting illustrative master plan completed in May 2019 is shown in Figure 4.4. Comparison with the 2018 master plan in Figure 4.2 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 was likely to help to contain the noise from freight handling operations.

4.144. Further noise attenuation was proposed in the landscape buffer across the north-eastern edge of the site, adjacent to Elmesthorpe. This included 4m 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.

4.145. Overall, these changes resulted in slight benefits to the nature of noise and vibration effects. There were no other notable changes in the nature of potential environmental effects across all other topics.

- ***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.

4.146. 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, approximately 700m north of M69 Junction 2.

4.147. The additional recreational routes resulted in a slight benefit to the nature of land use and socio-economic effects. There were no other notable change in the nature of potential environmental effects across all other topics.

- **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 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.

4.148. These changes resulted in a slight benefit to the nature of land use and socio-economic effects. There were no other notable change in the nature of potential environmental effects across all other topics.

- **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 explained in the transport chapter of this ES, 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 and are described in the following section of this ES chapter.

4.149. 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.

4.150. Updates to the main internal access road are shown in Figure 4.4 which also shows the status of the master plan in May 2019. Figure 4.5 shows the master plan as it had evolved by November of that year. Both versions show a built footprint of approximately 604,000 square meters, 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.

4.151. The design changes identified as a result of road traffic modelling resulted in benefits to the nature of transport and traffic effects in comparison to those known prior to consultation. There were no other notable change in the nature of potential environmental effects across all other topics.

The draft Master Plan presented in the January 2022 statutory consultation

4.152. Figure 4.6 shows the master plan presented for the purpose of the statutory public consultation in January 2022. In respect of how the master plan has evolved since November 2019, noteworthy features include the following.

i). The Railport was 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 was been made for the following reasons.

- Locating the Railport in the central area of the site was physically difficult to achieve due the gradient across the site. The layout was constraining in respect of the provision of road access to buildings between the Railport and the railway, and individual buildings could not be rail connected. 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 handling 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.

4.153. Overall, these changes resulted in a slight beneficial change to the nature of noise and vibration effects despite moving the Railport closer to receptors to the north. The improvement is a result of operational efficiencies applied and the subsequent overall reduction in wheel squeal. There were no other notable changes in the nature of potential environmental effects across all other topics.

ii). The development layout sought to make the most efficient use of land inside the Main HNRFI Site. The indicative layout had an internal built footprint of 650,000 square metres reflecting an increase from that considered previously, this is due to the relocation of the Railport alongside the Leicester to Hinckley railway. The layout also included buildings permissible under the proposed DCO parameters to a maximum building height of 33 metres, as measured from ground level, an increase from the maximum heights envisaged previously. This height increase reflects evolving market expectations, informed by discussions with potential occupiers. Three buildings are shown indicatively on the Railport frontage, again in response to enquiries from potential occupiers.

4.154. Overall, these changes resulted in a slight adverse change to the nature of landscape and visual effects due to the increase in height of buildings and therefore their visibility against the skyline. There were no other notable changes in the nature of potential environmental effects across all other topics.

iii). The A47 Link Road across the southern part of the Main HNRFI Site featured 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. This change did not result in a change to the draft Order Limits.

4.155. The design changes resulted in benefits to the nature of transport and traffic effects. There were no other notable changes in the nature of potential environmental effects across all other topics.

iv). No B8 buildings were proposed to the south-west of the main access road. This update was included to ensure sufficient space for a lorry park with welfare facilities and filling station, a site hub with offices and a marketing suite, an energy centre and a storage yard for empty freight containers, but is otherwise proposed as an amenity open space.

4.156. The inclusion of the energy centre within the design resulted in benefits to the nature of energy and climate effects. There were no other notable changes in the nature of potential environmental effects across all other topics.

v). With the core of the Main HNRFI Site dedicated to B8 buildings, a dedicated route

for pedestrians, cyclists and horse rider route between Elmesthorpe and Burbage Common was proposed along the eastern edge of 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 A47 Link 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.

4.157. These changes resulted in a slight benefit to the nature of land use and socio-economic effects. There were no other notable change in the nature of potential environmental effects across all other topics.

vi). Noise attenuation barriers up to six metres in height were introduced around much of the southern, western and northern edges of the Main HNRFI Site to contain operational noise and protect the noise sensitive receptors within nearby villages including Elmesthorpe, Stoney Stanton and Sapcote.

4.158. These changes resulted in a slight benefit to the nature of noise and vibration effects. There were no other notable change in the nature of potential environmental effects across all other topics.

vii). Consideration was given to the attainment of biodiversity net gain (BNG) for the Proposed Development. TSH was reviewing options including financial contributions and/or the provision of an area of land for off-site habitat creation and enhancement.

4.159. The purpose of updating the design in line with BNG is to provide benefit to the ecological effects, although at this stage those benefits were yet to be obtained. There were no other notable change in the nature of potential environmental effects across all other topics.

The current Master Plan

4.160. Figure 3.1 (document reference 6.3.3.1) of this ES shows the master plan as presented for the purposes of this ES and the proposals are described in detail in Chapter 3: *Project description* of this ES. In respect of how the master plan has evolved since the January 2022 statutory noteworthy features include the following.

i) Under the proposed DCO parameters the maximum building height (including photovoltaics) photo has been reduced from 33 metres to 28 metres, as measured from ground level.

4.161. This, along with a further reduction of building heights within the northernmost and southernmost areas of the Proposed Development, improves the overall ability to mitigate medium range views from Earl Shilton, Barwell and Elmesthorpe and results in a benefit in reducing the level of landscape and visual effects. There were no other notable changes in the nature of potential environmental effects across all other topics.

ii) Additional 15m landscaped screening buffer to the west of the Container Returns

area, this creates a screened buffer between the Main HNRFI Site and Burbage common and provides a greater sense of separation.

4.162. This change resulted in a benefit in the nature of ecology and landscape and visual effects. There were no other notable change in the nature of potential environmental effects across all other topics.

iii) The north western boundary has been extended by between 12.5 and 17.5m from the network rail ownership boundary. This provides an area for greater depth of woodland planting along the north western boundary. This improves the effectiveness of landscape mitigation, improves the amenity route for the PRoW and provides a greater sense of a landscaped setting to the HNRFI.

4.163. This resulted in a benefit in the nature of ecology and landscape and visual effects. There were no other notable change in the nature of potential environmental effects across all other topics.

iv) Change in the illustrative waterbody design from one balancing pond to four, for improved ecological design within the new amenity area.

4.164. This resulted in a benefit in the nature of ecology and surface water and flood risk effects. There were no other notable change in the nature of potential environmental effects across all other topics.

v) Introduction of a connection from the Railport to the main internal estate road in order to provide greater intermodal connectivity across the park.

4.165. There were no notable change in the nature of potential environmental effects across all topics as a result of this update.

vi) Improved connectivity between the onsite footpath and cycleway network and the proposed public footpath and bridleway network via an additional link between units 2 and 3.

4.166. This resulted in a benefit in the nature of land use and socio-economic effects. There were no other notable change in the nature of potential environmental effects across all other topics.

LINK ROADS AND OFF-SITE HIGHWAYS IMPROVEMENTS

Autumn 2018 consultation feedback on road traffic

4.167. A substantial amount of feedback from the first informal consultation in autumn 2018 concerned the effects of the Proposed Development on the local road network. The HNRFI always envisaged that HGV traffic would be directed to the M69 motorway unless making local deliveries to avoid lorries passing through nearby settlements. However, the proposed upgrading of M69 Junction 2 to an all-ways junction will have a wider effect on the pattern of local traffic movements, creating attractive new routes for commuters and other traffic. Consultation feedback highlighted concern over the potential increase in road traffic on routes through local settlements, including Burbage and Hinckley to the west and Sapcote and Stoney Stanton to the east of M69 Junction 2.

4.168. In response and guided by further road traffic modelling, the Applicant undertook a further informal consultation in summer 2019 specifically on the issue of off-site highways effects. Views were invited on three road improvement options, shown in Map 4.10 and described below.

A link from the HNRFI site westwards to the A47

4.169. The A47 Link Road provides a connection through the Main HNRFI Site from M69 Junction 2 to the B4668 Leicester Road, before then connecting to the A47. It was envisaged that this option would comprise a 7.3m wide single carriageway road with a footpath and cycleway, with grass verges and new hedgerow and fences on its boundaries with farmland.

4.170. The purpose of the A47 Link Road was to prevent traffic principally from Barwell and Earl Shilton to the north from travelling to and from the upgraded M69 Junction 2 via existing roads through Hinckley, Burbage, Elmesthorpe and Stoney Stanton.

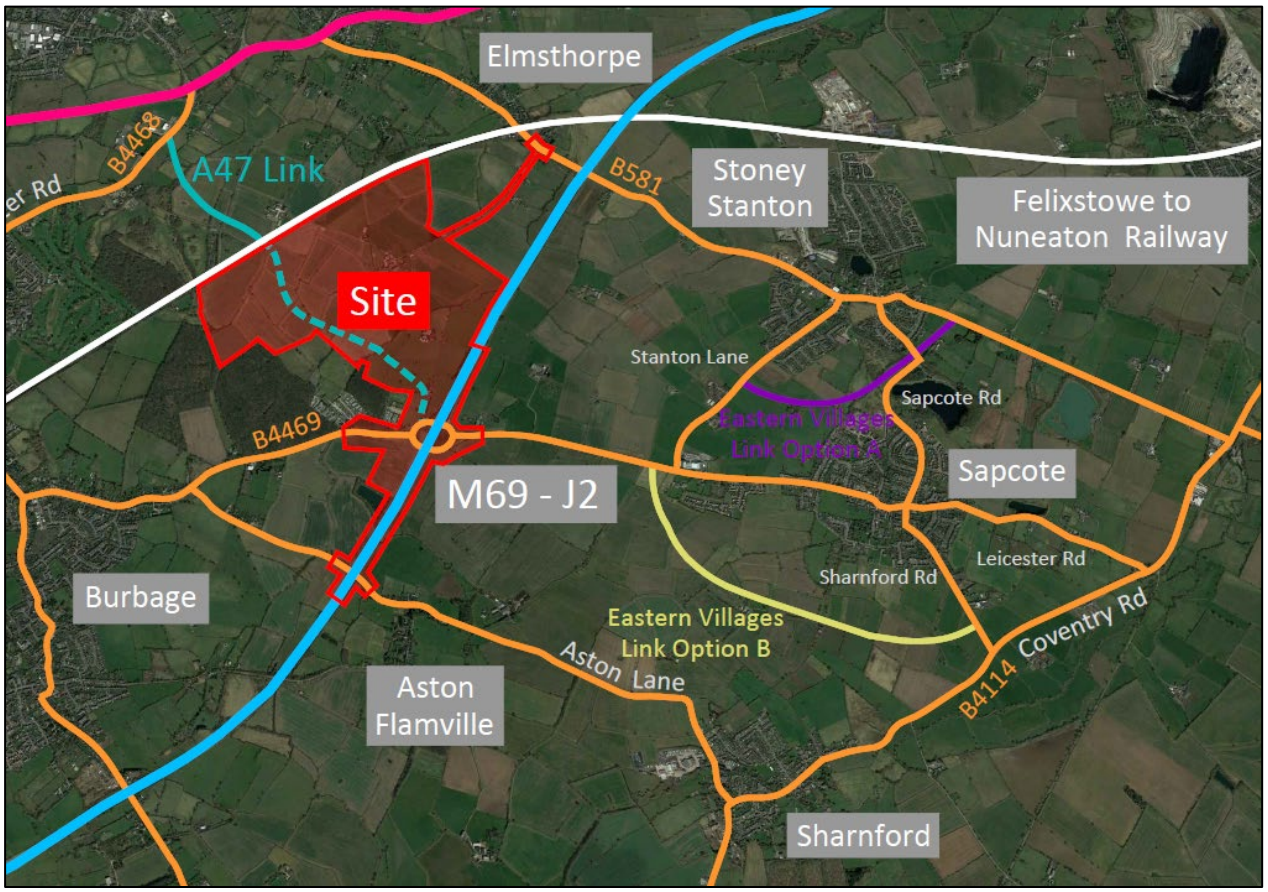
4.171. In effect the A47 Link Road completes a 'Ring Road' around Hinckley (A5, A47, M69) reducing the need for traffic to route through the town centre and providing increased resilience along the A5, should there be any incidents of bridge strike by tall vehicles at Dodwell's roundabout on the southern side of Hinckley, for example.

Eastern villages option A: a by-pass around the southern side of Stoney Stanton

4.172. This option provided a connection between the B581 Broughton Road to the east of Stoney Stanton to Hinckley Road to the south of the village. Again, it was envisaged that this road would comprise a 7.3m wide single carriageway road with grass verges and new hedgerow and fences on its boundaries with farmland.

4.173. The purpose of this option was to provide an alternative route for road traffic travelling east-west between the B4114 Coventry Road and the upgraded M69 Junction 2, by-passing the village centres of Stoney Stanton and Sapcote.

Map 4.10: Indicative location of the A47 and Eastern Villages link road options that were the subject of a public consultation in summer 2019. The general location of the Main HNRFI Site and M69 junction enhancement are indicated in red, but it should be noted that these are not the draft Order Limits as now proposed.



Background image: Google Earth

Eastern villages option B: a by-pass around the southern side of Sapcote

4.174. This option provided an alternative route for road traffic travelling east-west between the B4114 Coventry Road and the upgraded M69 Junction 2, by-passing the village centres of Stoney Stanton and Sapcote. It would provide a connection between the B4669 Hinckley Road west of Sapcote and Sharnford Road to the south-east of the village.

4.175. The envisaged design specification would be a 7.3m wide single carriageway road with grass verges and new hedgerow and fences on its boundaries with farmland.

Refined off-site highways options following the informal 2019 consultation

4.176. The Applicant completed further traffic modelling to understand the impacts of the two bypass options, A and B, in combination with the proposed A47 Link Road. The outputs from this traffic modelling indicated that the A47 Link Road would provide the most significant benefits in terms of removal of traffic from existing links when modelled alone and in tandem with the bypass options. Whilst the bypass option B around Sapcote

provided some relief through the village but there were minimal benefits beyond this. Furthermore, a number of vehicles were attracted to the route due to reduced travel time of the link, thus introducing more traffic into the area. The bypass option A around Stoney Stanton did not discernibly improve traffic conditions in the village itself.

4.177. The traffic modelling was revisited following further dialogue with the Local Highways Authority, LCC. A newer version of the Pan-Regional Transport Model (PRTM 2.1) was developed in 2020 (updated to version 2.2 in 2021), which refined the core model that had been used for traffic modelling hitherto. LCC requested that this be used to understand the effects of the Proposed Development on the road network. The modelling included an access strategy for the HNRFI which incorporated the A47 Link Road and the proposed south facing slips at M69 Junction 2. The modelling scenarios included 'without HNRFI development but with access infrastructure' to better understand the background redistribution of traffic associated with the new slip roads and A47 Link Road independently of the development. The bypasses proposed previously were only to be considered once the redistribution was assessed.

4.178. Outputs from the PRTM 2.2 traffic modelling indicate that redistributed traffic makes up the majority of traffic flow change on the network when compared with traffic flows generated by the HNRFI. However, the new access infrastructure provides clear reductions of traffic on routes in and around Hinckley. Some increases are inevitable on routes around Stoney Stanton and Sapcote, but of these many have destinations or origins within the villages themselves. Further review indicates that the redistributed traffic constitutes a significant number of existing residents and businesses rather than through-traffic between the M69 and the B4114 Coventry Road to the east of the villages.

4.179. On this basis the Applicant concluded that the level of through traffic does not justify the adverse economic, social and environmental impacts occurring through the construction of either bypass option A and B, and that the access infrastructure and off-site mitigation provided adequately mitigates the transport and traffic impacts of the HNRFI.

4.180. The current proposals aim to amend existing speed limit orders and improve routes and junctions in Sapcote and Stoney Stanton, with public realm improvements including cycle and pedestrian connectivity proposed in Sapcote. The current proposals result in a benefit in the overall nature of environmental effects in comparison to the inclusion of the bypass options. These works are summarised in Table 3.2 of Chapter 3: *Project description* (document reference 6.1.3) and assessed in Chapter 8: *Transport and traffic* of this ES (document reference 6.1.8).

Other off-site highway works

4.181. In addition to these major off-site highways works, traffic modelling has identified a need for modifications to several junctions on the local road network, in response to the different traffic flow pattern resulting partly from the proposed HNRFI development and principally from the M69 Junction 2 upgrade. These junction improvement options are described and assessed in Chapter 3: *Project description* (document reference 6.1.3) and Chapter 8: *Transport and traffic* (document reference 6.1.8) of this ES.

4.182. ES Figure 8.2 and 8.3 in Chapter 8: *Transport and traffic* (document reference 6.1.8) show all of the roads and junctions that were evaluated for potential works in connection with the Proposed Development with the assistance of the PRTM modelling described above. They are located across the districts Blaby and Hinckley and Bosworth and extend onto neighbouring local author areas. As ES Chapter 8: *Transport and traffic* (document reference 6.1.8) and its appendices explain, in many cases the effects of HNRFI traffic and existing road traffic using revised routes once the proposed M69 Junction 2 enhancements and A47 Link Road are in place were either negligible or insufficient to justify further highway enhancements. Over 30 roads and junctions were scrutinised in more detail before the refined list of 11 enhancements identified in Table 3.2 and Figure 3.3 of Chapter 3: *Project description* of this ES (document reference 6.1.3) were identified for the purpose of this public consultation.

4.183. The range of measures considered to improve traffic flows at off-site locations has included road widening, kerb realignment, the creation of additional lanes on the approach to junctions and the introduction of traffic lights, pedestrian crossings and a range of traffic calming methods to promote road safety and local amenity. All measures included within the final design have contributed to a benefit in the nature of transport and traffic effects in comparison to the alternatives considered.

CONCLUSION

4.184. Throughout the process the Applicant has reviewed a range of site, development, road and environmental mitigation options with a view to arriving at a Proposed Development that fulfils the requirements of the NPS, respects neighbouring communities, responds to the local environmental context and fulfils the operational requirements of freight and logistics operators.