1. Introduction

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

Roxhill (Junction 15) Ltd is proposing a Strategic Rail Freight Interchange (SRFI) on land to the west of M1 Junction 15. The proposed SRFI is known as 'Northampton Gateway' and the proposals include a new bypass to the village of Roade to the south as well as significant improvements to Junction 15 of the M1.

A Strategic Rail Freight Interchange (SRFI) is a large multi-purpose freight interchange and distribution centre linked into both the rail and trunk road systems. It has rail-served warehousing and container handling facilities, and enables freight to be transferred between transport modes (i.e. from lorry to train). An SRFI allows rail to be used to best effect to undertake the long-haul primary trunk journey, with other modes (usually road) providing the secondary, and often final, delivery leg of the journey. As described in the information presented, Government policy is to encourage 'a network' of SRFI's across the UK to help meet economic and environmental opportunities and challenges.

Context Plan

The proposals are for:

- Rail freight terminal with capability to provide a 'rapid rail freight' facility;
- Warehouse buildings with a floorspace area of 468,000 sq.m, with up to 155,000 sq.m floorspace in the form of mezzanines;
- Significant improvements to Junction 15 of the M1 to increase capacity and reliability;
- A site access via the A508 which would be dualled between the site and the M1 junction roundabout;
- A new bypass to the village of Roade to remove through traffic from the village centre;
- Significant new earthworks, landscaping and tree planting to substantially screen the site from outside view.

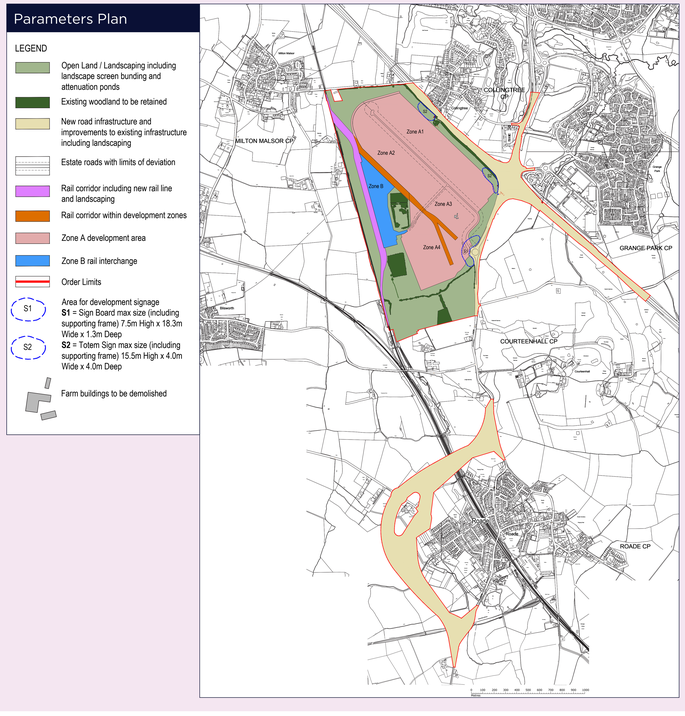
The proposed buildings are 18.5m high to the ridge of the roof. Each would have specific car parking as well as HGV parking and service yards, and as shown on the Illustrative Masterplan buildings located in the southern half of the site would be served directly by connections to the rail terminal.

Nationally Significant Infrastructure Project

Northampton Gateway is a Nationally Significant Infrastructure Project (NSIP). This means that rather than a planning application made to the local authority, an application for a 'Development Consent Order' is made to the Planning Inspectorate. On formal acceptance of the application the Planning Inspectorate will examine the proposals in detail before making a recommendation to the Secretary of State for Transport who will then formally determine the application.

Further details about the process and timescale are set out on the final board of this exhibition.

Parameters Plan



Illustrative Masterplan

Purpose and Structure of this Exhibition

This exhibition forms part of a series of community consultation and engagement activity by Roxhill. The intention is to ensure local people are aware of the emerging proposals, and to provide an opportunity for people to provide ideas, comments and any questions at an early stage in the process.

The information provided is informed by the work to date in preparing an Environmental Statement (ES). The ES is not yet complete, but sufficient work has been undertaken to provide early information to aid and inform local people who are interested in knowing more about the site and the project. In addition to the information provided here today, an Environmental Report has also been published to coincide with this exhibition.

Later boards included in this exhibition cover issues relating to: Landscape and Visual impacts, Ecology, Air and Noise, and Transport and Highways. These and other topics will form the focus of specific chapters within the final Environmental Statement once complete.

Additional consultation events will be held in 2017 prior to finalisation and submission of the application which is expected in late summer 2017.

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2. National Policy Context

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

In December 2014 Government published the National Policy Statement (NPS) for National Networks. The NPS sets the national vision and policy for the future development of nationally significant infrastructure projects on the national road and rail networks. It is explicitly intended to provide guidance for promoters of nationally significant infrastructure projects, and forms the basis for the examination of NSIP projects and decisions by the Secretary of State.

The NPS explains the important and significant role national road and rail networks play in terms of "supporting economic growth and productivity as well as facilitating passenger, business and leisure journeys across the country". It summarises the need for investment in the national networks as:

"Well-connected and high-performing networks with sufficient capacity are vital to meet the country's long-term needs and support a prosperous economy" (page 9, 'Summary of need').

Specifically in terms of the strategic importance of the rail network for freight movements and economic development the NPS states:

"Rail freight is already playing an increasingly significant role in logistics and, is an increasingly important driver of economic growth, particularly as it increases its market share of container traffic, " (para 2.34)

The NPS makes explicit references to Strategic Rail Freight Interchanges and their role in facilitating the movement of freight from road to rail. This is seen as central to Government's vision for transport which is described as:

"Government's vision for transport is for a low carbon sustainable transport system that is an engine for economic growth, but is also safer and improves the quality of life in our communities. The Government therefore believes it is important to facilitate the development of the intermodal rail freight industry. The transfer of freight from road to rail has a part to play in a low carbon economy and help to address climate change." (para 2.53)

The environmental benefits of increased use of rail forms part of the justification for the general support for a policy of shifting from road and air freight to rail and water. The NPS says:

"Rail transport has a crucial role to play in delivering significant reductions in pollution and congestion. Tonne for tonne, rail freight produces 70% less CO2 than road freight, up to fifteen times lower NOX emissions and nearly 90% lower PM10 emissions." (para 2.35)

To deliver the Government's vision of transport networks which deliver economic and environmental benefits, the NPS is clear that:

"A network of SRFIs is a key element in aiding the transfer of freight from road to rail, supporting sustainable distribution and rail freight growth and meeting the changing needs of the logistics industry" (para 2.47).

The continuing growth of the number of containers coming into the country and improvements to port capacity are drivers of the increased need for SRFI development to reduce reliance on road haulage. The NPS refers to forecasts of freight traffic which **"confirm the need for an expanded network of large SRFIs across the regions to accommodate the long-term growth in rail freight." (para 2.50).**

Since the NPS was published further national vision and strategy documents have been published by Government which further elaborate and clarify the priorities and objectives for development of rail freight in the UK. The updated information recently published includes revised forecasts of freight growth and trends commissioned by the Department for Transport (DfT) which help to provide a context for further investment in rail freight infrastructure, including the need for additional SRFIs.

National Planning Policy Framework (NPPF)

In addition to the NPS, the NPPF is also of direct relevance in terms of providing the strategic policy context for the proposed development. The planning system has a role in helping deliver sustainable development, and as defined in the NPPF there are three inter-related dimensions to be pursued:

- An economic role, ensuring sufficient land of the right type is available in the right place, at the right time, to support growth;
- A social role, supporting strong, vibrant and healthy communities;
- An environmental role, to enhance the natural and built environment.

The NPPF reiterates that the Government is committed to securing economic growth in order to create jobs and prosperity and to ensuring that the 'planning system does everything it can to support sustainable economic growth'. The wording of the NPPF policies are clear:

"Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth..... significant weight should be placed on the need to support economic growth through the planning system" (Para 19)

And that the country needs to

"plan proactively to meet the development needs of business and support an economy fit for the 21st century". (Para 20).

A key thrust of the NPPF is the need to balance the effects of development taking account of economic, social and environmental issues to achieve sustainable development. The NPPF therefore needs to be applied as a whole, and provides policy on a range of topics and themes, many of which are represented on the boards of this exhibition.

Rail Freight Strategy (2016)

The Rail Freight Strategy was published by Department for Transport (DfT) in September 2016. It sets a vision for how rail freight can continue to grow, and for the broader logistics sector and rail industry to innovate to relieve congestion on the road network.

The strategy is clear that the full economic and carbon benefits of rail freight can only be realised if the industry is able to grow in key sectors, and respond to a number of trends and opportunities in the rail freight sector. These include a number of challenges, such as the reduced volumes of coal now being transported, as well as opportunities through the emergence of new markets and sectors.

The opportunities include innovation to respond to demands for reliable, flexible, and rapid delivery services, and the strategy refers to the potential for rapid parcel delivery services, driven by retailer and consumer demand. However, it includes continued transportation of construction materials, as well as 'intermodal' ports traffic and containerised freight which are all expected to form part of the continued growth of demand for increased use of rail freight. DfT expects the volume of containers moved by rail to double over the next 15 years.

Alongside the Freight Strategy, a report was published entitled 'Future Potential for Modal Shift in the UK Rail Freight Market' prepared by AECOM and Arup for the DfT. The report gives details of the changes seen over recent years in key sectors of the rail freight market, as well as identifying the prospects for further growth. In the context of intermodal (port and domestic) traffic a key to unlocking the expected growth is "the creation and linking of a network of rail-connected distribution concentrations" which are SRFIs or regional terminals.

The report states that the current relative lack of SRFIs results in longer trunk haul distances by road, and recognises that demand from the retail and logistics sectors exists which is stimulating the development of additional SRFIs with delivery to be led by the private sector.

Sub-regional and local Policy

The Local Enterprise Partnership (SEMLEP) for Northamptonshire, as part of the south-east Midlands recently produced a 'Logistics Report' focused on a number of issues, including skills and employment related priorities. That report states that the area is:

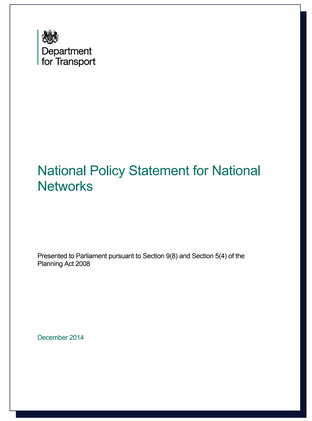
"a key location for logistics activities.....a perfect location for logistics organisations to grow and flourish" (page 7, SEMLEP Logistics Report, December 2013).

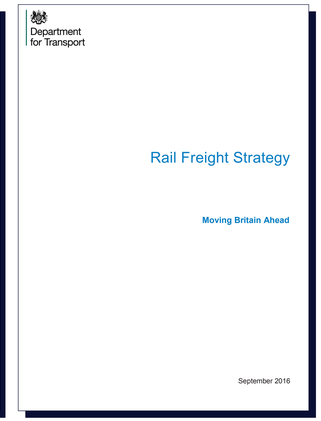
The report identifies the particular potential and opportunities in "Milton Keynes, Northampton, and Bedford" for further warehouse and distribution development and employment. Through its Strategic Economic Plan the LEP makes reference to the importance of suitable and available sites to enable continued investment and growth, as well as physical infrastructural improvements. With reference to the Logistics sector, this includes an awareness of the role of the strategic and local road networks and the need for improvements to support and enable economic growth.

South Northamptonshire District Council produced an Economic Development Strategy in July 2016. The strategy sets out the economic development priorities for the District. The strategy identifies Logistics as one of the District's key sectors. A number of actions are identified across a range of economic and skills agendas to support and enable continued growth of the sector, including issues relating to skills and training, working with providers of training and education, and matching local job-seekers with employers. Other priorities for action identified in the Council's Strategy include recognition of the need to build on the locational advantage of the area by enabling growth in appropriate locations around the M1.

Notwithstanding the relatively low unemployment in the District overall, this strategy helps underpin the role of the District in the wider sub-regional economy, and the need to respond to the opportunities and challenges facing the area.

Container traffic in the UK will double over the next 15 years according to the DfT's Rail Freight Strategy, 2016.





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3. Why here?

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

Locational Attributes

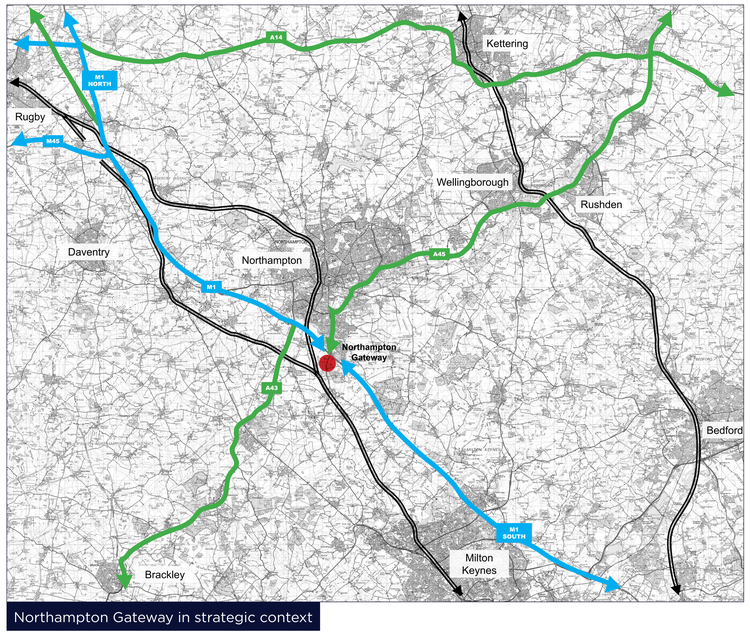
The site is in a highly attractive and strategically significant location for distribution and logistics activity. In addition to being located adjacent to both the strategic road and rail networks, the site is also within the national 'golden triangle' for logistics with access to a population of 45.8 million people within a 4.5 hour drive.

Northampton has been a popular location for the distribution sector for a number of years, and the sector is well represented in the local economy with significantly higher than average levels of employment in distribution related activity. It is estimated that around 11% of all workers (91,700) are employed in the logistics sector in the South-East Midlands area. With employment of over 16,000 people in the sector (in 2012), Northampton is 2nd only to Milton Keynes, and considerably higher than other locations such as Daventry with 7,700 employed and South Northamptonshire which has 2,800 people employed in the logistics sector.

The Local Enterprise Partnership and the local planning authorities recognise the strength and importance of the logistics and distribution sector to the local economy. This is reflected in a number of sub-regional economic and planning strategies and policies which seek to manage and secure the benefits and opportunities which this strength brings.

The site is close to and accessible from a number of communities and urban areas for employment purposes – this includes not only Northampton, but also Towcester, Bicester and Milton Keynes nearby. The adjacent plan shows the strategic context for the site, highlighting the opportunities provided by accessibility and proximity to the strategic road and rail networks.

The following exhibition board provides additional information about the rail connectivity and associated features of the proposals.



Northampton Gateway in strategic context

Attributes of the Northampton Gateway location:

Access to strategic road and rail networks:

- Adjacent to M1 motorway
- Directly linked to West Coast Main Line, the UKs main rail freight corridor

Access to key urban centres and markets:

- Close to Northampton, Milton Keynes, Towcester and Wellingborough, which are likely sources of labour supply.
- Within 4.5 hours drive of 45.8 million people.

Economic Benefits

Using standard employment densities, and experiences of similar schemes elsewhere, the site is expected to accommodate somewhere in the region of between 6000 - 7500 jobs once operational, This estimate of employment is generated using national standard job density data published by the Homes & Communities Agency (HCA) which suggests the site will deliver an average of one job per 77 sq.m. With no mezzanine space provided this would suggest 6000 jobs on the site, while the upper end of this range assumes all of the mezzanine space allowed for within the proposals is delivered. The Transport Assessment will assume a worst-case scenario in terms of potential traffic based around the highest likely employment assumptions.

A range of new job types will be created, covering a wide range of skills and qualifications, and using experience and data from other similar sites it is possible to estimate an approximate mix of job types. While around half of the jobs (approx. 3700 jobs) would typically be warehouse operatives, large numbers of other types of employment will also be created including as a guide:

- 13% in admin and associated support roles (approx. 970 jobs);
- 8% driving roles (approx. 600 jobs);
- 21% in other supporting roles (approx.. 1550 jobs) including Information Technology, customer service, sales, and engineering support;
- 8% in managerial roles (approx. 600 jobs).

Typically around 90% of all jobs would be full-time, with the remaining 10% part-time, and there would be a mixture of shift based as well as standard hours jobs.

The assessment of economic benefits is based on an area derived from existing (2011 Census) data regarding travel to work patterns. This study area covers a number of administrative areas within Northamptonshire, including South Northamptonshire, Northampton, Wellingborough, and Daventry (as well as Milton Keynes outside of the County), and the employment and economic impacts of the scheme will be focused on this area.

Gross Value Added (GVA) as a measure of economic value from the proposals is estimated to be around £316 million per annum. That represents a significant investment in the local economy and is in addition to the capital costs of development which are likely to be around £300 million. The construction process would also generate a mixture of temporary and permanent employment, estimated to be around 900 temporary jobs, and 90 permanent jobs based on a five year construction period.

Economic Benefits - Headlines

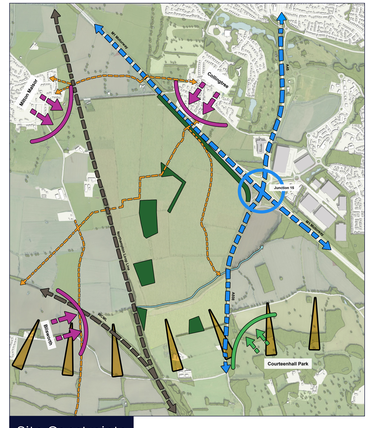
- 6,000 - 7500 jobs, plus approx 900 construction jobs;
- Capital Investment of around £300 million
- Added value of £316 million per annum to the local economy primarily focused on Northamptonshire.

Design response to the site and context

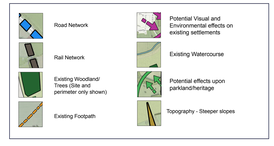
As described, the site has a number of strategic strengths and opportunities. In addition, the proposals respond directly to the local context through a masterplan which seeks to maximise the benefits offered by the site's specific characteristics and opportunities.

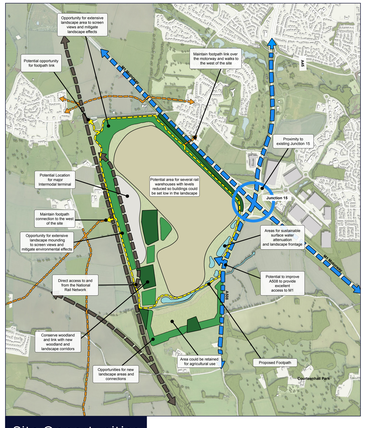
The emerging SRFI design proposals reflect site specific constraints and opportunities and these have directly informed the approach to both built and landscape components of the scheme. These are indicated on the plans below. Key potential constraints on-site include the presence of an existing water-course and existing woodland areas, as well as the potential for visual effects on nearby communities. However, some of these features also present opportunities for the way in which development comes forward, with a key example being the retention of existing woodland areas which can offer benefits in terms of retained and improved biodiversity on-site as well as forming part of the visual screening of the development. Similarly the topography of the site can bring opportunities for earthworks to change levels, creating the opportunity to both lower the level of built development and also create a strong landscaped edge to the site to minimise visual impacts. The location also offers a range of strategic opportunities. For example, having excellent access to strategic road and rail networks is a major criteria for a successful and attractive SRFI site, as is being close to and accessible from urban areas as a source of labour.

In particular, the importance of ensuring the development responds to the topography and characteristics of the site and surroundings – in particular, with regards to eliminating or minimising visual and other impacts on the residential areas at Milton Malsor and Blisworth beyond the WCML railway to the west, and Collingtree on the north/eastern side of the M1 – has been the main driver behind the landscape led strategy and approach which underpins the masterplanning and earthworks strategy proposed. Further details are shown on later Boards.

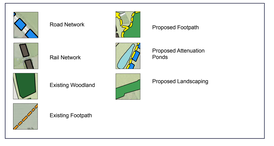


Site Constraints





Site Opportunities



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4. Proposed Rail Terminal

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

Connectivity and 'markets'

The Northampton area is a strategic and highly attractive area for logistics and distribution development. It is part of the 'logistics golden triangle', where retailers and distribution companies prefer to focus their national warehousing because the area has very good access to markets across England making it a key location for strategic distribution activity.

The proposed site has excellent access to the trunk road network, and is directly linked to the West Coast Main Line, which is the UK's main freight corridor (it handles 43% of all UK rail freight). The SRFI would be directly connected to the WCML Northampton Loop, with connections to both the north and south directions (towards Bletchley and Rugby), allowing occupiers to run trains to other rail terminals round the country, shifting freight from road to rail.

Container traffic in the UK will double over the next 15 years according to the DfT's Rail Freight Strategy, 2016.

Our proposals are a response to an explicit recognition of the need for more SRFIs to help deliver the economic and environmental benefits and other outcomes from a continued shift from road to rail freight. Government policy is clear that there is a need for significantly more SRFIs, and forecasts are for significant growth in freight traffic, including a doubling of the container traffic that the SRFI will handle by 2030. The proposals would contribute to the growth in demand for SRFIs expected in the 2016 DfT Freight Strategy and 2016 Network Rail Freight Study.

"rail-connected National Distribution Centres are fundamental to creating this virtuous circle of growth" - (AECOM & ARUP for DfT, Sept 2016)

A new SRFI in this location can more effectively serve areas such as Northampton, Wellingborough, Bicester, and Milton Keynes, diverting more containers from road to rail. These areas are currently not well served by existing SRFI, and would be better served by a new facility.

'Future-proofing'

In addition to the bulk freight rail terminal which will meet current and long-term growth, the proposals also make provision for a Rapid Rail Freight Terminal. This is an important part of measures to look ahead at anticipated and growing market trends in the distribution sector, and to 'future-proof' the Northampton Gateway site.

DfT and the distribution industry are already looking at ways to distribute goods from warehouses to final destinations (shops or homes etc.) in a more environmentally friendly way. Through inclusion of the Rapid Rail Freight terminal this SRFI would offer the ability to move relatively fast moving, lower bulk goods to major conurbations such as London, Birmingham and Manchester in fast electric freight trains, where they will be transhipped to small vehicles (probably electric vehicles in due course) for final delivery. The Rapid Rail Freight facility delivers this capability by providing dedicated terminal facilities on-site.

There are already signs of growing market interest in rail as part of 'express' and consumer driven distribution and supply chains, and it is considered likely to grow in response to a range of economic and environmental factors and trends. These include potential public policy initiatives such as proposals to limit or prevent HGVs from entering City Centres in response to concerns about air quality as well as congestion. Given the relatively long time-scale over which the SRFI is expected to mature, it is considered vital that this area of distribution activity is provided for.

Rail network capacity

The Northampton Gateway site will be connected directly to the Network Rail Northampton Loop. This is the electrified route used by all freight trains on the West Coast Main Line (WCML). The West Coast Main Line already carries 43% of all UK rail freight traffic, and a greater proportion of all of the UK's intermodal container trains.

Within the existing Network Rail timetable there are spare paths for up to 4 freight trains every hour passing the Northampton Gateway site. The Fast Lines via Blisworth have too many high speed passenger services to be used by freight traffic.

At night (22.00 – 06.00) there are spare paths for around 8 trains per hour in each direction as very few passenger trains run. Even if all the freight trains run every day there would still be spare capacity to add another 20 freight trains per day onto the route.

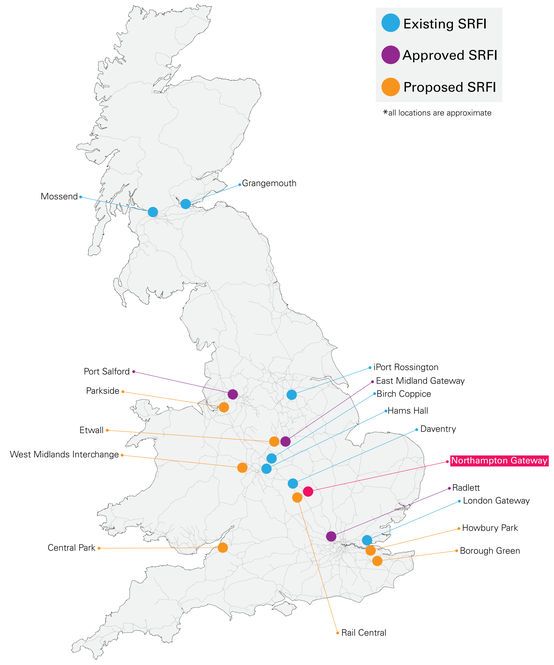
However, of the existing booked or allocated freight paths a high proportion are not currently used in practice. Taking account of the existing but unused freight paths there is capacity for at least another 50 freight trains per day on the West Coast Main Line between London and Rugby. This is considerably more than the maximum of 16 trains per day that would run into Northampton gateway in the long term.

In addition, once Phase 1 of HS2 is opened in 2026, DfT and Network Rail plan to reallocate WCML route capacity freed up by the diversion of the high speed services onto the new line. DfT and HS2 predict that this will generate additional WCML capacity for between 20 and 40 freight trains per day.

Network Rail published its draft Freight Route Study in August 2016. This forecasts that intermodal traffic will grow by between 4.5% and 10.1% per annum. It also considers whether the trunk rail corridors have capacity to support this level of growth up to 2043, and recommends specific upgrades in areas where capacity might be constrained.

Network Rail does not foresee any specific freight capacity issues on the WCML south of Crewe, save for a need to ease speed restrictions at Northampton. This only has a limited impact on freight trains running to and from Northampton Gateway. We are therefore confident that there is sufficient WCML capacity to accommodate the additional freight trains that will serve the Northampton Gateway site.

Intermodal rail terminals



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5. Proposed Rail Terminal

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

Proposed rail freight terminal details – operational info

The rail terminal will comprise six key components:

- Connections from the main line (these will initially be single line but will be capable of doubling so that trains can enter and leave the site at the same time). The connections will be equipped with overhead wires so that electrically hauled trains can enter the site
- Three overhead wired Reception tracks where trains can run into and depart safely fast enough (around 30 mph) to avoid creating delays on the main line
- An overhead wired Headshunt to allow trains to be moved between the Reception Sidings and the terminal tracks
- Rail freight terminal where trains will be unloaded and reloaded with containers for customers on the site and at other locations
- Rail connected warehouses where customers who make major use of rail will be located, and where they will be able to unload and reload goods directly into their warehouses
- Rapid Rail freight terminal where fast trains carrying freight to shops and households in urban areas can be loaded and then despatched to city centre terminals. The terminal will be overhead wired, and it is expected that trains using it will comprise electric passenger type rolling stock.

Trains will arrive from the main line directly into the Reception Sidings. From here they will be moved via the Headshunt to the unloading points, either within the Rail freight terminal, the Rapid Rail freight terminal or the rail connected warehouses.

At each of these points wagons will be unloaded and moved into the customer's premises, either within the site or at other locations via the trunk road network. At the same time other goods will be reloaded to the wagons ready for the wagons to be despatched.

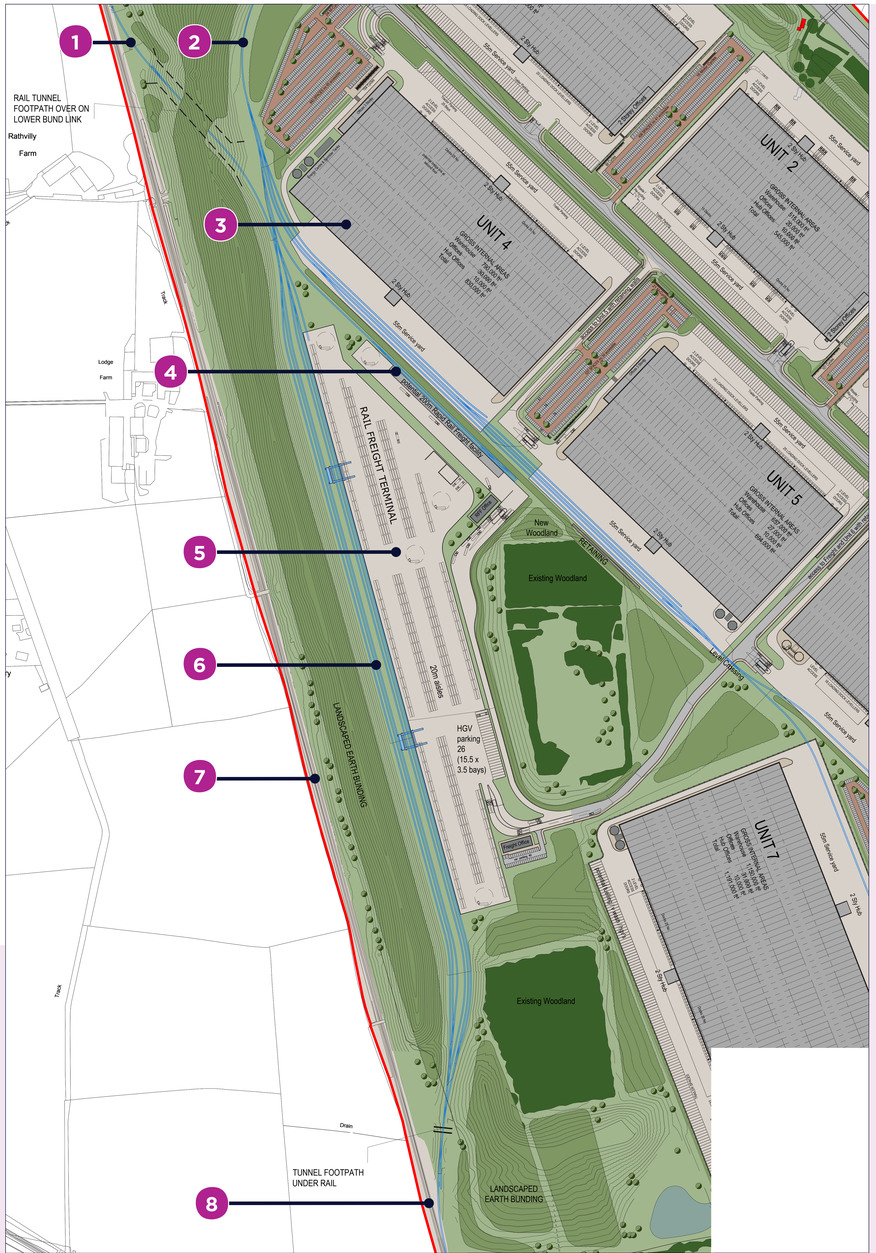
Trains will normally be ready for despatch around 4 hours after arrival. At that time the train will be moved back to the Reception Sidings via the Headshunt to be prepared to go onto the main line and to wait for their path. Trains that have arrived later will then be moved into the terminals for unloading. When the main line path is available the train will depart, and the Reception Line track will become available for the next arriving train. It will also be possible for trains to depart directly to the main line from the Rail freight and Rapid Rail Freight terminals.

As described on board 4, the Rapid Rail Freight terminal ensures that the Northampton Gateway is 'future-proofed' for the predicted increased demand for movement of a range of goods by rail. This includes categories of goods which are currently not widely moved by rail.

Though not shown in the diagrams, there will also be sidings within the terminals to hold wagons that need repairs, and to stable main line locomotives ready for their next duty. It is likely that there will be dedicated locomotives on site to reposition trains between the Reception Sidings and the Terminals.

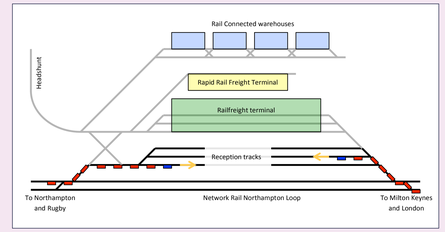
Key

1. Connection to the Northampton Loop
2. Headshunt
3. Rail connected warehouse
4. Rapid Rail Freight Terminal
5. Rail Freight Terminal
6. Reception sidings
7. Network Rail Northampton Loop
8. Connection to the Northampton Loop

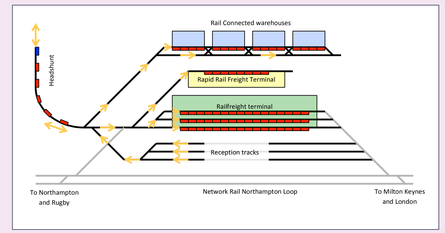


Extract of Illustrative Masterplan showing proposed rail terminal

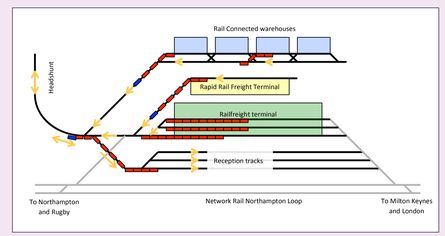
Train movements will be as shown on the following diagrams (note that the track layout is shown diagrammatically and is a simplified version of the connections that will actually be installed):



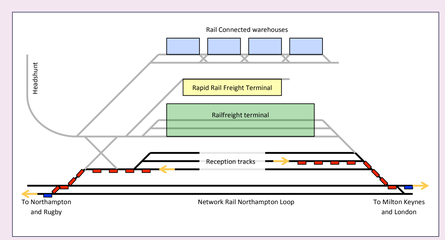
Trains arrive into the reception sidings.



Trains are moved to the Rail freight terminal, Rapid Rail freight Terminal, or Rail Connected warehouses for unloading.



When reloaded ready for despatch trains are moved back via the Headshunt to the Reception Sidings.



Trains depart onto the main line to the north or south.

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6. Environment

NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

An Environmental Statement (ES) is being prepared. The ES will be submitted alongside the application providing comprehensive information across the full-range of technical studies and assessments being undertaken. The following series of boards provide information about key elements of the ongoing ES.

Building and design sustainability

National and local planning policy seeks to reduce greenhouse gas emissions and promote sustainable development. The design approach for Northampton Gateway is based on low energy design principles. In summary, this approach involves energy demand minimisation through effective building form and orientation, good envelope design and proficient use of building services.

Long term energy benefits are best realised by reducing the inherent energy demand of the development. The building envelope will be designed to ensure that the fabric and form of the office and warehouse spaces encompass the low energy sustainability principles necessary to target a BREEAM 'Very Good' rating. BREEAM is an internationally recognised measure of a building's sustainable credentials, and a BREEAM 2014 Design and Procurement assessment will be undertaken.

Efficient building services and lighting systems will be supplemented by an array of renewable technologies including the following key sustainable construction and environmental features:

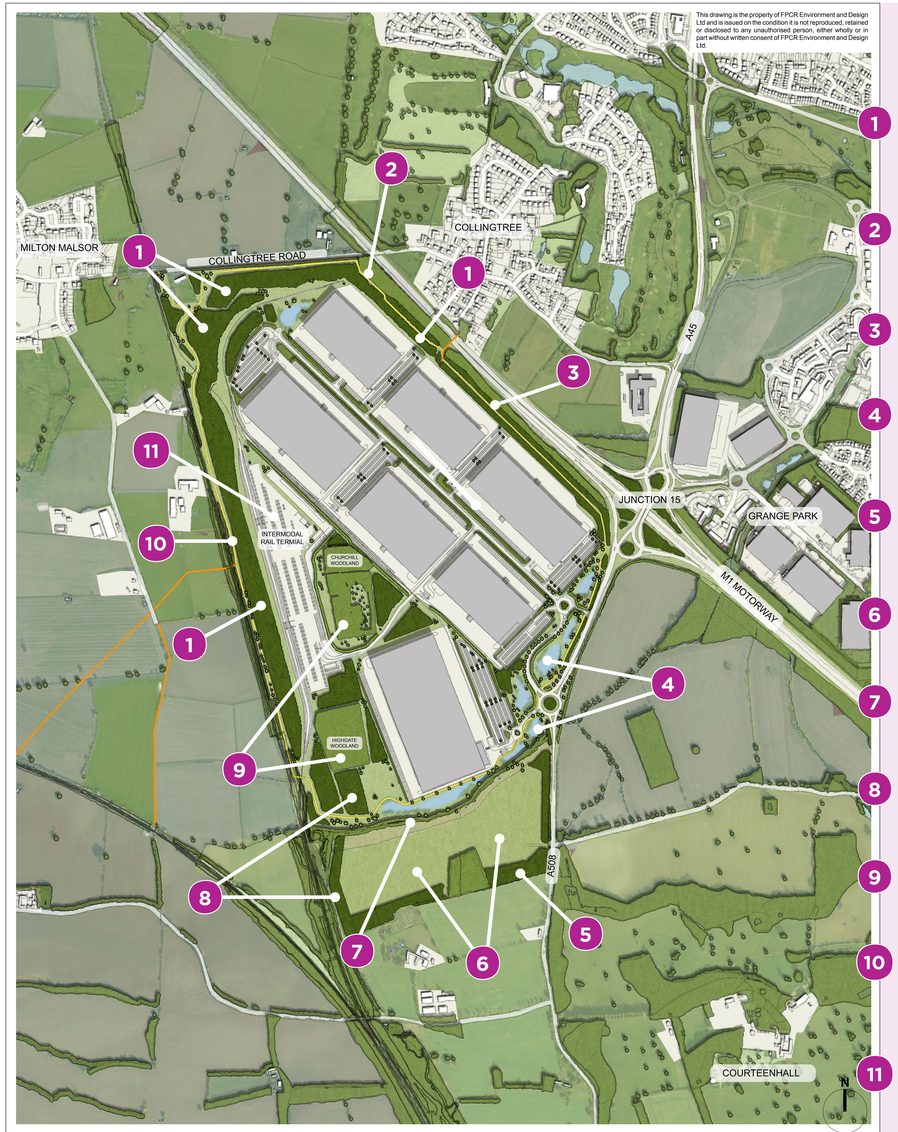
- Solar Thermal Evacuated Tubes for domestic hot water requirements
- Air Source Heat Pumps (ASHP) for space heating/cooling in the office areas
- Solar Photovoltaic Panels to provide a large proportion of the electrical demand of the buildings.
- Reduction in Carbon Dioxide (CO_2) emissions over Part L 2013 Building Regulations Standards through improved envelope and services provision
- Energy Performance Certificate (EPC) A-rating
- BREEAM rating of 'Very Good'
- Use of A and A+ rated construction materials, wherever possible, with associated low Embodied Carbon impact (Green Guide to Specification)
- Use of water saving and monitoring/control devices to minimise water consumption including low flow rate showers, low flow dual flush WC's and flow restrictors on taps
- Rainwater harvesting system to supply the office areas
- On-site recycling of waste materials
- Good daylighting provision to promote occupant well-being and to mitigate the use of artificial lighting
- Inclusion of attenuation/protection measures to minimise watercourse pollution

Landscape and Visual

The assessment of the landscape and visual effects of the proposals considers the site's relationship with, and proximity to, the existing built-up area of Northampton, as well as its relationship with the countryside and villages beyond.

The Proposed Development site (SRFI and Bypass) is currently agricultural land and forms part of the 'Northamptonshire Vales' National Landscape Character area (as defined by Natural England). The site includes a mixture of predominantly arable farmland, with a number of existing woodland areas and tree belts (including areas known as Highgate and Churchill's which are to be retained) within the site, and along the M1 boundary to the north. The main site's immediate context is dominated by the M1 motorway and urban influences to the north and east and the railway corridors, smaller settlements and countryside to the west. The land within the site generally rises towards the north, west and south of the site to provide some natural enclosure, with most of the site typically falling towards the east.

The landscape strategy devised is illustrated on the Landscape Framework Plan and the cross-sections which follow. The existing topography of the site and surrounding area, coupled with new perimeter mounding as part of the scheme will provide the opportunity to substantially screen the development and minimise any landscape and visual impacts upon the surrounding settlements and areas. The applicant is seeking to maximise the opportunities afforded by the presence of existing features on the ground and the site's topographical characteristics to deliver a suitably strong landscape boundary to the west, south-west and north in particular.



Landscape framework plan

Key

1. Substantial mounding and tree planting around site edges. (West, North and East)
2. Maintain and extend public footpath connections within site landscaping.
3. Conserve and reinforce existing perimeter trees and mounding.
4. New drainage features as part of landscaped site frontage.
5. Mounding and woodland planting for screening and to provide ecological connectivity.
6. Retain open fields. (for continued agricultural use)
7. Conserve watercourse and associated planting.
8. New woodland planting for screening and biodiversity.
9. Conserve and manage existing woodland and habitats.
10. Maintain and extend public footpath connections.
11. Intermodal Rail Terminal below existing ground level. Tunnel to north to maintain landscape screen.

ROXHILL