



West Midlands Interchange

OBJECTION TO DEVELOPMENT PROPOSALS

Project reference TR050005

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Summary

- The scheme is wholly unsuitable in respect of its vast size and incongruous location.
- The proposals will negatively impact on the quality of life within affected communities, destroy an area of green belt amenity, fauna and flora and overwhelm capacities of local infrastructures, principally road networks, housing supply, school places and access to primary medical care provision.
- The approach adopted within the scheme fails fundamentally to acknowledge that activities creating ecological degradation within and around the development area are incremental and cumulative.
- The confidence expressed within the Environmental Statement documents that the mitigation measures identified to protect existing wildlife will be effective is mis-placed, the plans do not adequately demonstrate as to how the required ecological balance will be achieved and maintained.
- The conclusions drawn from data produced, regarding increased volume of traffic, forecasting a relatively benign impact once traffic mitigation measures are in place, are not credible.
- The formulaic approach within the proposals has conspicuously failed to consider the impact of the development holistically or to consider meaningfully alternative locations or approaches to the development of Interchange facilities to service the West Midlands. I append two studies for further information advocating adoption of the Bescot site.

Introduction

Whilst I support the principles driving government policy to develop a national network of Strategic Rail Freight Interchanges (SRFIs) I can see no merit in the development plan as published for the West Midlands Interchange (WMI) at Gailey, Staffordshire and oppose the proposal submitted.

To assist the Secretary of State to visualise the size of the proposed development site, during his consideration of the scheme, I note it comprises approximately 297 hectares, that is 92 times greater than the 8 acres total ground area (including all buildings, courtyards and gardens) of the Palace of Westminster.

I maintain the scheme is wholly unsuitable in respect of its vast size and incongruous location. It will negatively impact on the quality of life within affected communities, destroy an area of green belt amenity, fauna and flora and overwhelm capacities of local infrastructures, principally road networks, housing supply, school places and access to primary medical care provision. I further believe this site to be unsuitably located in respect of the geographical areas of the Black Country and West Midlands markets to be serviced.

To achieve critical mass the developer has determined a specific business model for this development proposal under pinned by economies of scale, it's design and the site location. This approach has had the effect of causing smaller alternative site locations to be rejected as unsuitable within the, "Alternative Sites Assessment" exercise undertaken.

I understand that the economies of scale available through the adoption of a business model incorporating a development design of such a massive scale offers opportunities for construction and subsequent operational efficiency cost savings to be maximised. However, the cost of such savings, secured for the benefit of the developer and subsequent site operators, do not get eliminated from the calculation they simply get transferred, to be borne by local communities and will be evidenced

through the loss of amenity, detrimental impacts in the quality of life of communities, local infrastructures and the natural environment.

A fundamental consideration regarding this proposal pivots on the local environmental and human cost versus the financial, economic and cost saving advantages available from development of the Gailey site, compared to the costs of developing available alternative smaller sites, within the region, that may not offer the same level of financial incentive for the developers and operators.

Natural Environment

In respect of the natural environment a primary reason for my opposition to the development proposals relates to the devastating impact a development of the size and scale of operation proposed will inevitably present. As a point of reference, I note within the Planning Statement document a total of 36% of the site is to be dedicated to green infrastructure, I conclude therefore, of the total 2.97 square kilometre site area, virtually 2 square kilometres of green belt will be covered with concrete. An immense sterile barrier hostile to natural habitats.

The Staffordshire and Worcester Canal is a Conservation Area within the green belt and flows through the proposed development site. This canal corridor is key to help maintain the ecological balance within the location. I do not believe the measures proposed to mitigate the negative impacts of the development to protect habitat and wildlife pay due regard to the importance of this.

The existing industrialisation alongside the canal around Four Ashes clearly creates pressures on the flora and fauna present, however, several references within the developers' submission downplay the importance and contribution of the canal environment within the context of the green belt setting, exaggerating its industrial elements whilst downplaying its predominantly rural setting. I refer to a selection of examples taken from the Planning Statement and Alternative Sites Assessment documents:

“2.3.12 The Four Ashes Industrial Estate, the ERF, the Rodbaston Wind Farm and the Sludge Disposal Centre have added to the industrial character of the area surrounding the Site in recent years, with the 55,000 sq m Gestamp Factory, which neighbours the Site, completed in 2017.....

5.5.32 Whist the WMI site is designated Green Belt land, its surrounding context is made up of a mix of uses, features and influences. Areas of agricultural use, mineral workings and woodland (Calf Heath Wood) make up the site, however, the neighbouring chemical works at SI, the Four Ashes Industrial Area, the ERF and the Bericote Site influence the landscape and contribute to a more built up and industrial setting.

8.10.5 The existing Four Ashes Industrial Estate is located adjacent to the southern boundary of WMI and the Veolia Energy from Waste (ERF) Plant is also located south of the Site. A large chemical works (operated by SI Group (referred to as SI Works)) is located to the north of the industrial estate between the western and eastern sections of the Site and an area under construction as a storage and distribution development (known as the Bericote Development) lies close to these established uses but east of the canal.

8.10.27 The character of the site is affected by a number of significant urban and industrial influences including the proximity of the M6, the SI chemical works, the Bericote development site, the existing Four Ashes Industrial Estate and the Veolia energy recovery facility.”

I know the locality of the site well and have direct personal knowledge of the wildlife habitat. Specifically, I have photographed herons and kingfishers along the Staffs and Worcester canal between Penkridge and Deepmore Bridge for many years. I can testify as to how the construction development at the Bericote site and the introduction of the Smart Motorway Programme running north along the canal from the proposed site impacted on the population of these birds. They are sensitive to disturbance and noise; the construction works resulted in a sudden reduction in the number of sightings and this diminution has continued to this day. Kingfishers are no longer present and heron sightings are now extremely rare along several stretches of the canal.

Relating directly to the implications of the development proposals it is noted I have continued to make sightings of herons and kingfishers south of Gailey Roundhouse. As an example, I photographed, on the 31/12/2018, the kingfisher pictured on the cover of this document at a

location approximately 400 hundred metres south of the Roundhouse, this is an area proposed to be included within the development site boundary.

Regrettably I can think of no reason why the impact of construction activity on the proposed development site will not mirror the same result as that described on the previous page, culminating in the further displacement of kingfishers and herons.

I further contend the circumstances demonstrating the displacement of the kingfishers and herons is illustrative as to how the impact of disturbing natural habitats could potentially affect wildlife within the site more broadly.

It is clear that the effect of the proposed new development will inevitably exacerbate existing pressures on the natural environment, significantly during construction and continuing once the site is operational. My concern is that the scheme proposals fail fundamentally to acknowledge that activities creating ecological degradation within and around the location are incremental and cumulative.

It is to be recognized that the proposed development site is bounded on three sides by the M6, the A5 and the A449 and shares boundaries with the Bericote Site, the chemical works at Four Ashes and the mineral extraction site. The assessments published within the Environmental Plan are based on tick box methodology and do not adequately consider the impact of the development holistically within the wider geographical area and thereby will not adequately protect and maintain the indigenous flora and fauna. Specifically, bird life, bats, otters and badgers will all be vulnerable to displacement from the area of the proposed site due to disturbance created by all phases of this project.

Critically the planned development is on green belt land that currently supports the natural and semi-natural environment within the location providing a contiguous habitat corridor for plants and wildlife. The

purpose of the green belt, the value and benefits this affords the area, wider region and community I believe has been subjugated and undervalued throughout the development proposals.

I do not share the confidence expressed within the Environmental Statement documents that the mitigation measures identified to protect existing wildlife will be effective, the plans do not adequately demonstrate as to how the required ecological balance will be achieved and maintained. I see no reason for optimism that certain wildlife species, currently present, will remain in location once construction commences. Further, that of those species that do remain their continued existence will be additionally challenged once the twenty-four-hour, seven-day week industrial site operations commence. I believe this will result in a negative transformation of the eco-system within and around the location due to the changes in land use, site activity, light and air pollution, noise and the vibration from road and rail.

Traffic

The increase in the volume of traffic that would be created by implementing the development proposals, either by lorries engaged in operational activity, or workers travelling to and from site, will as acknowledged within the developers' submission, be very significantly greater than that currently existing.

I do not find the conclusions drawn from the data produced, regarding increased volume of traffic, forecasting a relatively benign impact once proposed traffic mitigation measures are in place, to be remotely credible.

My experience, as a resident of Penkridge for forty years, is that traffic congestion in the area is commonplace and invariably created by vehicles exiting the motorway to avoid congestion. This can result in queues and tailbacks on the A5 and A449 (Gailey Island through Penkridge up to M6 junction 13). At peak times congestion can be a daily occurrence. The B5012 can also be adversely affected by high levels

of traffic at these critical times with vehicles using this road to access the A34. It is a relatively narrow road, with several junctions and is not designed to manage high volumes of traffic.

The technical data provided by the developers, relating to air, noise and light pollution is beyond the scope of my knowledge so I am unable to interpret the information provided. I do conclude, however, that as with all other impacts of this scheme the communities of Penkridge, Calf Heath and surrounding areas are effectively being targeted to endure the adverse nuisance, and potentially ill health effects, of air pollution to support the overall reduction of pollution levels at a regional and national level. Unreasonably pollution at a local level will increase. The stark reality is that the scheme is uncompromisingly to the detriment of the local environment and communities. Extracts from The Planning Statement confirm this as follows:

“12.3.12 The proposals are anticipated to reduce overall HGV movements across the wider road network resulting in significant reductions in regional NOX, PM10 and PM2.5 emissions, however, whilst there would be some localised adverse impacts, the increase in movements of goods via rail freight would result in a significant beneficial impact on regional air quality.

12.3.13 The Proposed Development is expected to result in a positive impact on regional air quality as it is anticipated to reduce overall HGV movements across the wider road network, resulting in significant reductions in regional NOx, PM10 and PM2.5 emissions.

12.5.2 The Proposed Development aims to reduce the overall number of HGVs using the road network by using rail freight to transport goods. This is expected to result in a positive impact on regional air quality”

Conclusion

The formulaic approach of the proposals has conspicuously failed to consider the impact of the development holistically or to consider meaningfully alternative locations or approaches to the development of Interchange facilities to service the West Midlands. I append two

studies for your further information advocating adoption of the Bescot site.

The submission consistently underplays role of the green belt and the purpose it plays within this specific locality. The development will have the effect of totally changing the character and ecology of the location and contribute to further erosion of the green belt and the benefits it provides.

The scale of the planned development within the proposed location will subsume the area and irrevocably change the nature of the site and surrounding district due to, the adverse impacts caused by increased traffic flow, the obtrusive operational activities undertaken on site together with consequent environmental detriment and the pernicious effects on community infrastructures due to the volume of additional labour required to be introduced to the locality with the additional burden this will impose on existing road networks, housing, schools and medical provision.

The new jobs forecasts contained within the proposals presented are inevitably speculative, based on market assumptions, trade growth predications and extrapolations of business volumes. The data presented cannot therefore be meaningfully commented on in any detail at this time. More broadly, however, I note that within the area of South Staffordshire, in fact throughout the Staffordshire region unemployment levels are low compared with national figures and significantly, are strikingly lower than levels throughout the West Midlands region.

I fail to identify any significant community benefit for the South Staffordshire area regarding the potential for jobs created by the development, although critically, a clear need for increased employment opportunities exists within the towns of the West Midlands.



WEST MIDLANDS FREIGHT STRATEGY

Supporting our Economy
Tackling Carbon



December 2016



WEST MIDLANDS
COMBINED AUTHORITY



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1 INTRODUCTION

1.1.1 The West Midlands is at the heart of the UK and through our devolution deal we have been given more powers to shape our own economic plan. Our excellent transport links nationally and internationally are key to our prosperity and future growth.

1.1.2 At the same time, the region is facing both tremendous challenges and opportunities arising from major infrastructure investments and the disruption that they will bring as they are delivered. Maintaining and improving the resilience of our networks at such a time is essential.

1.1.3 This freight strategy will provide us with tools to work together with businesses, and a programme to deliver a West Midlands that shines as a beacon for best practice in urban logistics management providing:

- Improved access to the West Midlands by road and rail;
- New ways of managing deliveries which provide businesses and residents with high quality access to goods and services;
- A range of techniques to reduce emissions, noise, and congestion caused by goods vehicles;
- Support for the introduction of very low emissions or zero emissions delivery systems;
- Safer vehicles and reduced goods vehicle accidents, particularly those accidents which involve vulnerable road users; and
- A commitment to deliver these improvements through a partnership with businesses and government.

1.1.4 The West Midlands Freight Strategy seeks to do more than enhance our existing strengths. It outlines an approach whereby the West Midlands can be seen as a beacon of best practice in freight management, where efficient logistics is seen as a vital engine for the economy, but imposes a much lower impact on our communities, our environment, and our transport infrastructure.

1.1.5 This is our vision:

“By 2030, the West Midlands will have safer, more reliable, sustainable, and efficient freight and logistics movements to, from and within the West Midlands. We will be seen as a beacon of best practice, in which logistics supports economic growth and boosts productivity, with significantly reduced impacts on communities and the environment.”

The Need for a Strategy

1.2.1 The West Midlands Combined Authority Devolution Agreement provides new powers to support policies and actions across all modes and all transport users. Efficient logistics is recognised as being a key issue for the new combined authority. The agreement recognises and supports the importance of the West Midlands Strategic Transport Plan: Movement For Growth. This freight strategy is aligned with, and feeds into, the Strategic Transport Plan.

1.2.2 It is important the West Midlands has an integrated freight strategy to provide a framework for steering investment locally by differing authorities, LEPs and bodies. At the same time, the freight strategy will advise and inform the longer term decision making and prioritisation occurring by national bodies such as Network Rail, Highways England and the Department for Transport (DfT).

1.2.3 The movement of freight is not restricted by administrative boundaries, nor does it occur in isolation from other users of our local and strategic transport networks. This means interaction with and impacts on other users and our communities, whilst also having impacts on efforts towards reducing carbon emissions, improving air quality and enhancing road safety.



Purpose of the Freight Strategy

1.3.1 The multi-agency, cross boundary governance of the West Midlands, along with the private sector nature of freight movements, means that the Freight Strategy will undertake a range of functions including:

- Provide a framework to inform and steer transport investment programmes developed by the West Midlands Combined Authority (WMCA) and metropolitan Local Authorities across the metropolitan area.
- Set out a framework to work with industry to deliver strategic objectives at the same time as improving sustainability, efficiency and attracting investment.
- Inform and advise land use planning documents and processes by planning authorities and be deemed material consideration in planning decisions/ inquiries.
- Inform, advise and help prioritise decision making by partner bodies such as LEPs.
- Inform, advise and help prioritise decision making relating to future Major Schemes towards supporting freight and the economy.
- Outline the West Midlands position towards strategic transport assets and corridors beyond our boundary, to inform decision making by national bodies such as the Highways England and Network Rail.
- Influence Government policy development.
- Enable the West Midlands to be seen as a beacon of logistics best practice and an excellent location for businesses to grow.

Freight and the West Midlands Devolution Deal

1.3.2 The devolution deal, signed in November 2015, for the creation of a West Midlands Combined Authority, contained a number of things that could impact on freight initiatives in the future. These included:

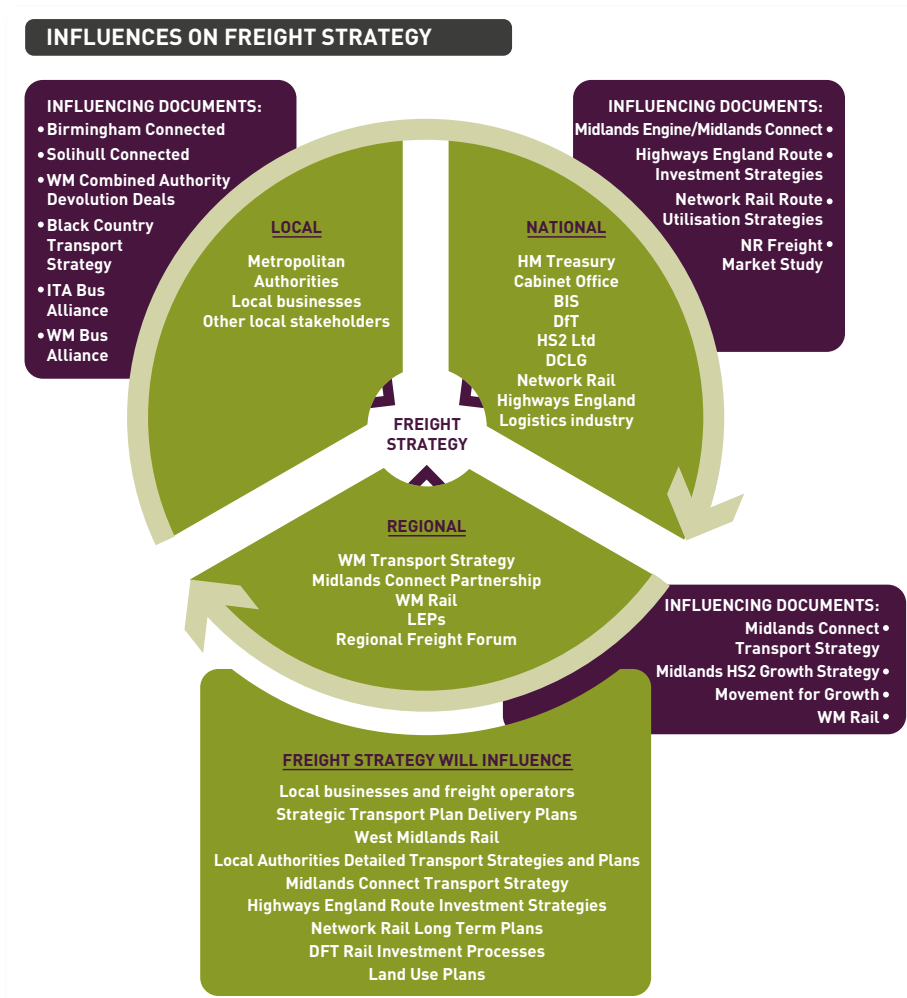
- Responsibility over a 'Key Route Network' of main local authority roads. This could include initiatives to ensure that freight is given some priority on this network.
- A commitment to develop a new Roads Investment Strategy, collectively with central government, which will target investments specifically to facilitate the movement of people and goods on our roads.
- A commitment to work collectively with Network Rail and Highways England to better integrate the needs of local and national networks.

1.3.3 Overall, the Combined Authority has been given the remit to deliver economic growth across the region and facilitate freight movements, as well as securing jobs and productivity in the freight sector. All of which are an important part of their work.

Relationships

1.4.1 The WMMFS has been influenced by a range of other strategy documents and stakeholders locally and nationally. In turn, it will play a central role influencing regional and national policy. Figure 1 illustrates the key relationships.

Figure 1: Key relationships



1.4.2 The relationship with local businesses and the logistics industry will be central to successful delivery of the strategy. A Regional Logistics Forum will ensure that the needs of freight users and operators are heard, and that policies and plans are not only deliverable but will support a growing and efficient logistics sector in the West Midlands.

Freight Strategy Coverage

1.5.1 Reflecting the administrative boundary of the West Midlands Combined Authority (WMCA), this Freight Strategy covers the seven local authorities which comprise the metropolitan area.

1.5.2 However, it is appropriate that the freight strategy also outlines priorities and aspirations for strategic transport corridors and assets beyond the Combined Authority area to our key trading destinations such as the deep sea ports, ferry ports or other major urban areas.

1.5.3 The WMCA has coordinated the development of the Freight Strategy in partnership with the seven metropolitan local authorities:

- Birmingham City Council;
- Coventry City Council;
- Dudley Metropolitan Borough Council;
- Sandwell Metropolitan Borough Council;
- Solihull Metropolitan Borough Council;
- Walsall Metropolitan Borough Council; and
- City of Wolverhampton.

1.5.4 There are also a number of non-constituent members of the Combined Authority and other local authorities may become constituent members in the future.

1.5.5 Local Enterprise Partnerships (LEPs) were set up to reflect local economic geographies, which do not necessarily have to align with local authority boundaries, meaning that the three LEPs covering the metropolitan area also cover economic areas outside the metropolitan area boundary. Three LEP's cover the metropolitan area:

- Greater Birmingham & Solihull
- Black Country
- Coventry & Warwickshire

1.5.6 Each LEP has plans to address barriers to growth and strategies to boost economic development and job creation. These strategies have been taken into account in the development of the WMMFS.

1.5.7 At the same time, LEPs will have a prominent role in future major scheme prioritisation, reflecting the requirements of their growth strategies, and are key members of Local Transport Boards. As a consequence, LEPs are key stakeholders in the development and delivery of the strategy.

1.5.8 The three LEPs have produced their own Strategic Economic Plans. This is in accord with the Combined Authority's overarching Strategic Economic Plan which attains the regions economic priorities for all three LEPs and the Combined Authorities Strategic Economic Plan, the importance of freight transport and good connectivity is acknowledged, and this strategy reflects the transport priorities contained in the SEPs.

Midlands Connect

- 1.6.1** Midlands Connect is an ambitious initiative to identify transport connectivity improvements to maximise long-term economic growth in the Midlands. This will provide a platform for engagement with Government, High Speed 2 Limited, Network Rail and Highways England, to influence long-term investment in the strategic transport networks across the Midlands.
- 1.6.2** Midlands Connect brings together a partnership between LEPs and Local Authorities across the Midlands (working with Network Rail and Highways England) to develop the strongest possible case for strategic transport investment in the Midlands. The focus is on connecting towns and cities in the Midlands, both to each other and to key cities and gateways outside the Midlands, to realise the region's full economic growth potential.
- 1.6.3** Midlands Connect will seek to make the best use of the existing transport networks, while supporting enhancements, where necessary, in order to facilitate economic growth across the region. Midlands Connect comprises two key workstreams, as follows:
- Strategic Communications: developing a 'One Voice' approach to ensure that the Midlands reaches a unified position on what strategic interventions are required to maximise the growth potential of the region; and
 - A programme of technical work: in parallel with Route Studies by Network Rail and Highways England, this is focused on building the strongest economic case for strategic transport investment in the region.
- 1.6.4** WMCA will work through Midlands Connect to influence the provision of strategic freight infrastructure and to improve connections within the region and externally.

The Changing Relationship Between Government & Freight

- 1.7.1** In the past, freight was often seen by government in its many forms as a problem to be addressed – particularly in terms of impact on communities. Hence the main policy reaction was to restrict and regulate freight movement, particularly in urban areas.
- 1.7.2** More recently, local and national government have come to understand the importance of partnership – listening to freight users and operators and involving them in the development of policies through, for example, Freight Quality Partnerships.
- 1.7.3** Today the view is more sophisticated. The logistics industry is recognised as an important employer, and freight transport as a major enabler of efficient business. Government recognises that working with industry at a regional level can have a significant impact on efficiency as well as reducing emissions and improving safety.
- 1.7.4** The role of central government within the freight sector is to focus on infrastructure investment, regulation, licensing, safety and compliance. This leaves an important opportunity for regional and local government to provide an environment where freight moves (by appropriate modes) freely, efficiently, safely and sustainably to service needs of local businesses.
- 1.7.5** Local and regional government needs industry links to engage decision-makers and make changes possible.
- 1.7.6** Over time, government has recognised that it can't solve freight issues in isolation – freight trips are generated by business and consumer demand, so it needs to understand these and facilitate, not just constrain and restrict.
- 1.7.7** There are huge opportunities, through partnership working, to change the way that freight is managed and transported, with significant benefits for communities and business.



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OPPORTUNITIES AND CHALLENGES

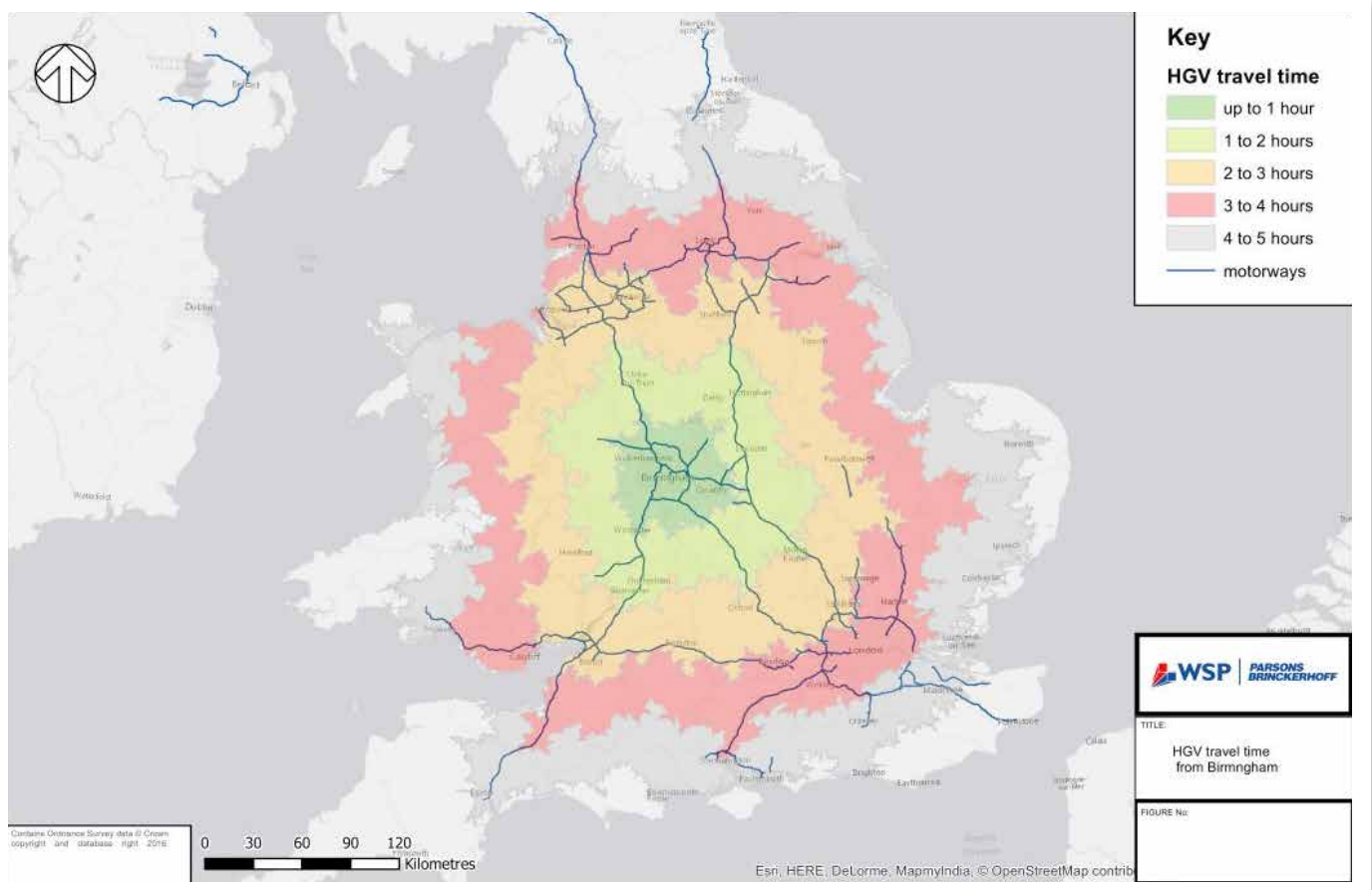
Freight Strategy Coverage

- 2.1.1** Freight and logistics movements are vital to the West Midlands economy and supply the goods and services used by its people every day. Freight movements do not simply occur but rather they reflect our economic activity and provide the means to trade nationally and internationally.
- 2.1.2** With a population of 2.8 million, 1.1 million households, 1.3 million jobs and 66,000 individual businesses of varying sizes in the metropolitan area alone, the region is served by a complex network of freight and logistics movements, which impose a variety of demands on our transport networks.
- 2.1.3** The West Midlands metropolitan area is located at the heart of the UK and is at the centre of the UK's motorway and railway networks. Our location gives us strong access to major domestic and international markets and provides the West Midlands with a strategic economic advantage, with 90% of UK businesses and population being located within a four hour road travel time from the West Midlands, demonstrated by Figure 2.
- 2.1.4** However, the strategic geographical advantage of the metropolitan area comes with a cost. Being the crossroads of the UK also means that our transport networks must carry large volumes of traffic between other regions or, indeed, other countries.

Midlands Connect

- 2.1.5** The impact of road congestion, reflecting the national and local trips our transport networks carry, costs the metropolitan area economy some £2.3bn per year in higher costs, lost business and reduced productivity. The impact nationally of congestion in our area will be even higher.
- 2.1.6** Within this figure of £2.3bn, despite representing just 6% of all trips, congestion to road freight movements costs the economy some £600M per year¹, almost a quarter of the estimated annualised cost, due to the high value of freight loads.
- 2.1.7** The metropolitan area faces challenges on the rail network which has seen considerable freight and passenger growth. Again, the rail network has to provide efficient services for passengers as well as freight and for long distance inter regional traffic as well as traffic to and from the West Midlands.

Figure 2: Road Based Journey Times from the West Midlands



¹ Source: West Midlands “Gridlock or Growth? Congestion Management Study” 2007

Opportunities: Freight Transport & the Economy

2.2.1 Today our transport networks carry an increasing mix of national, regional and local journeys undertaken by a mixture of freight, public and private transport. Transport networks across the West Midlands regularly suffer chronic levels of congestion, especially on the road network, which are having impacts on the West Midlands economy, constraining our ability to attract investment, create jobs, and to trade with the rest of the UK, Europe and the global market place.

2.2.2 The link between investment in transport infrastructure and sustainable economic benefits has been evaluated and, whilst definitions differ, broadly, the following seven economic benefits can be captured by investment in transport infrastructure:

- Improved business efficiency, notably by travel time savings, improving journey time reliability and; travel quality. A 5 per cent reduction in travel time for all business travel on the national road network could generate cost savings of around £2.5 billion².
- Stimulating business investment and innovation by supporting economies of scale and new ways of working.
- Agglomeration of economies which brings firms closer (in space or time) to other firms or workers in the same sector.
- Improved labour market efficiency, enabling firms to access a larger labour supply and; wider employment opportunities for people and those seeking work.
- Increasing competition by opening access to new markets, principally by integration of world markets.
- Increasing domestic and international trade by reducing trading costs.
- Attracting globally mobile businesses to locate in an area by providing an attractive business environment, access to markets and skilled employees.

Logistics as an Employer

2.2.3 The Logistics Sector in the West Midlands (region) employs 155,000 people across 18,690 companies. Including those who work in logistics occupations in other sectors, the actual size of the sector is 222,600 people which equates to 9% of the region's workforce³.

2.2.4 Managers comprise 20% of the logistics workforce in the West Midlands. Of these, only 54% hold a level 3 or above qualification. 52% of staff are employed in transport and machine operative roles (includes LGV and van drivers) and elementary occupations (warehouse worker, postal workers and couriers). This is a much higher proportion than all sector data of 21% for these two major occupational groups.

2.2.5 17% of logistics employers report skills gaps in their workforce.

2.2.6 Innovation in logistics requires new technologies and new skills. Developing and offering new logistics services will provide local businesses with opportunities to improve efficiency while attracting investment from new businesses.

² Source: Department for Transport "Eddington Transport Study – The Case for Action" (2006)

³ Skills for Logistics West Midlands Labour Market Fact Sheet

Logistics is Changing

- 2.2.7** The volume of freight moved (tonne kilometres) is no longer closely linked to changes in GDP, so while GDP may grow, the volume of freight grows at a slower rate. This reflects changes such as the move towards a service based economy and away from heavy raw materials, as well as increased efficiency.
- 2.2.8** Movement of freight is becoming more efficient, using larger vehicles (such as 44T articulated lorries and double deck trailers), and more efficient distribution systems so that goods vehicle traffic volumes have recently been falling or stable. Nonetheless, as reported in the Data Report, articulated heavy goods vehicle volumes are forecast to grow by around 22% between 2015 and 2025.
- 2.2.9** New technologies are being explored, including the potential for zero emission vehicles, autonomous goods vehicles, and platooning of semi autonomous vehicles on motorways to reduce emissions.
- 2.2.10** More dramatic changes are occurring in the rail freight sector. In the last year the volume of coal carried has plummeted by around 50%, but the number of containers carried is growing strongly. Continued strength in trade through ports and the development of new Strategic Rail Freight Interchanges is forecast to increase rail freight volume and see a change from a freight railway focused on bulk commodities to one dominated by the movement of food and consumer goods.
- 2.2.11** Most significant of all is the rapid growth in movements of Light Goods Vehicles (LGVs), which includes vehicles under 3.5T, notably vans. This traffic includes freight movements but also servicing and other businesses, such as tradesmen and engineers. LGV traffic has grown by 20% over the last 10 years⁴ and is forecast to grow by 50% over the next 20 years⁵.
- 2.2.12** What is driving these changes? And how is logistics likely to change in the future? There are a number of important influences, some of which have contradicting impacts on freight transport. These include:
- Continued increase in international trade;
 - Movement towards centralised manufacturing and distribution (for example, the growth of huge national distribution centres for retailers);
 - Internet shopping and home deliveries, including demand for same day delivery;
 - The internet of things and big data – allowing real time management of supply chains and transport movements; and
 - The sustainability agenda, leading to the development of ultra-low emission vehicles and changes in the way supply chains are structured.
- 2.2.13** These changes lead to challenges, but also to opportunities for the West Midlands. These opportunities and challenges include:
- Providing the right infrastructure for changing patterns of goods transport;
 - Ensuring that the West Midlands is in the lead in adapting to different supply chains and technologies; and
 - Attracting innovative logistics businesses to invest and grow in the West Midlands.

⁴ DfT Road Traffic Estimates: Great Britain 2014

⁵ DfT Road Traffic Forecasts 2015

Smart City Logistics

- 2.2.14** Efficient, economic, safe and sustainable freight movement is absolutely essential to our everyday lives and is the lifeblood of our town and city economies, ensuring we receive the goods we need at the time and location we want, in perfect condition.
- 2.2.15** Whether we call it “City Logistics”, “Urban Logistics” or “Smart Logistics” there is increasing recognition that new approaches to managing freight in urban areas can offer huge benefits to businesses and to communities.
- 2.2.16** These new approaches fit alongside other developments in society and transport management that mean that more information is available in real time to enable truly “Smart” solutions to logistics problems. For example, Smart Deliveries can be managed in real time, making use of information on which loading bays are available. Smart Hybrid Technology can be used to switch goods vehicles to electric mode when passing through areas of known poor air quality.
- 2.2.17** To date, many sustainable distribution projects at the local, national and European levels have focused on the wide variety of individual freight transport measures which can be implemented to help improve local urban and interurban freight performance, such as;
- Use of Consolidation Centres;
 - Retiming to out-of-hours deliveries;
 - Establishing urban delivery platforms;
 - Controlling freight vehicle access;
 - Alternative/innovative mode use for urban freight shipments (e.g. freight tram or barge);
 - Low emission zones and vehicles; and
 - Freight routeing and signposting.
- 2.2.18** All of these measures are potential solutions to help improve urban freight movement, but often individual freight management measures (or a small cluster of measures) are introduced simply because they seem like a good idea or there is some political will to trial them.
- 2.2.19** This ‘piecemeal’ approach does not necessarily involve, at the outset, the collection of data for analysis to actually understand the exact nature of local freight movement and its associated challenges, nor the development of coherent urban freight management strategies, with clear objectives and corresponding action plans with clear targets, timescales, deliverables and responsibilities.



2.2.20 Effective, coherent, integrated urban freight management planning involves a comprehensive process that begins with:

- Data collection of freight traffic flows, leading to;
- Analysis and interpretation of issues, to understand the precise 'nature of freight' movement locally, resulting in;
- The development and implementation of freight strategies and action plans, requiring input from;
- Appropriate delivery bodies, fully engaged with and involving industry, overseeing;
- Innovative yet deliverable measures entirely appropriate for the specific environment; and
- All supported by ongoing evaluation to understand which measures worked well and why.

2.2.21 This approach, built on data to highlight the actual freight issues, enables an informed Freight Strategy and supporting interventions to be developed.

Challenges

Freight transport & Carbon

2.3.1 Transport in general, and freight transport in particular, is a major contributor to carbon emissions and also to other emissions which are harmful on a more local level.

2.3.2 The UK legally committed to reducing carbon emissions by 34% by 2020 and 80% by 2050 under the Climate Change Act (2009). The transport sector (including aviation and international shipping) is the third largest sector for the source of UK greenhouse gas emissions. In 2013, the transport sector accounted for 23% of all the UK's domestic greenhouse gas emissions, as demonstrated in Figure 3.

2.3.3 Within the transport sector, private vehicles account for more than half of all transport emissions (53%). Heavy Goods Vehicles account for 21% of all transport emissions with Light Duty Vehicles accounting for 13%, meaning the road freight sector contributes 34% of transport emissions, as outlined in Figure 4, despite freight representing just 19% of all vehicle miles undertaken in the UK⁶.

Figure 3: UK GHG Emissions by Sector, 2013⁷

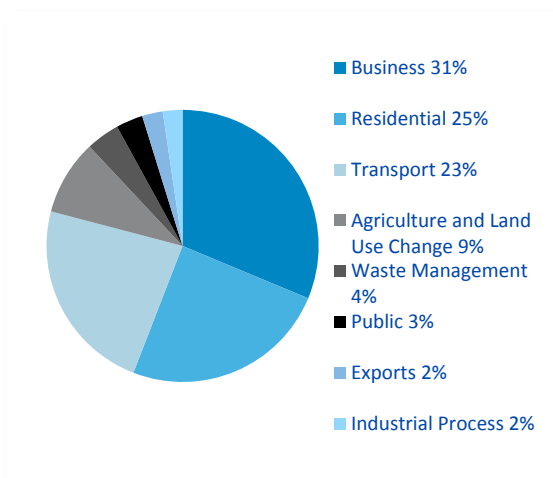
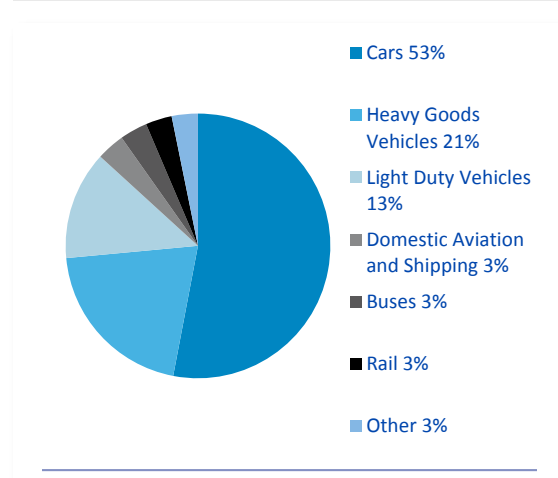


Figure 4: UK GHG Emissions from Transport by Mode, 2013⁸



⁶ Source: Department for Transport Statistics Table TRA0101 "Road traffic (vehicle miles) by vehicle type in Great Britain, annual 2014"

⁷ Source: Final UK greenhouse gas emissions national statistics 2013

⁸ Source: Final UK greenhouse gas emissions national statistics 2013

Network Capacity & Reliability

- 2.3.11** There are 10 sections of motorway in and around the metropolitan area which the DfT identifies as being in the lowest 10% of motorways for journey reliability, measured as average vehicle delay (in minutes) experienced for every ten miles driven on the network.
- 2.3.12** In addition, businesses in the West Midlands are impacted by congestion on trunk routes in other regions, routes which they rely on to serve markets in the UK and overseas.
- 2.3.13** Capacity is becoming a constraint on the rail network. More trains can be handled on the direct “F2N” route between Felixstowe and the Midlands once a series of investments are complete. Access to Southampton is constrained by capacity, particularly around Oxford and Basingstoke.
- 2.3.14** More significantly, the West Coast Main Line is the most important rail freight corridor in the UK. Freight trains on the WCML don’t only serve businesses in the West Midlands, they also carry long distance freight that would otherwise have to use the M6. HS2 provides an opportunity to provide much needed extra freight capacity on the WCML.

Specific Issues Identified

- 2.4.1** In order to provide guidance to the Freight Strategy, the WMCA has liaised with stakeholders, including through the development of the Strategic Transport Plan (STP) and the Freight Strategy ‘Vision & Key Issues’ consultation. This consultation identified issues which the freight strategy needs to address, in order to meet the key objectives and support the freight industry.
- 2.4.2** The key issues have been divided into the categories of transport system defined in the Movement for Growth, but with the addition of an overarching tier which covers all categories. They are summarised as follows:

Overarching Issues

- Improving data on freight transport to support decision making;
- Making the West Midlands a beacon for logistics best practice; and
- Opportunities for new vehicle and management technology.

National and regional tier

Accessibility to and journey reliability on West Midlands motorways and trunk roads

Maximising rail freight accessibility and connectivity

Imbalance of road freight on the M6 and M6 toll

Maximising the economic benefit and minimising the carbon impact of air freight

Providing the strategic rail freight interchanges and intermodal rail freight interchanges’ capacity to encourage freight to move by rail

Providing efficient access to rail freight for industry

Metropolitan tier

Urban road network journey reliability

Maximising water freight

Improving air quality

Improving freight vehicle road safety with vulnerable road users

Safe and secure overnight HGV parking

Local tier

Efficient deliveries to centres and homes

3

OUR VISION AND OBJECTIVES

Vision

3.1.1 The Freight Strategy will aspire to deliver actions and investment in freight which meets the following vision within the national and local policy context outlined in The Data Report which is published alongside this strategy

“By 2030, the West Midlands will have safer, more reliable, sustainable, and efficient freight and logistics movements to, from and within the West Midlands. We will be seen as a beacon of best practice, in which logistics supports economic growth and boosts productivity, with significantly reduced impacts on communities and the environment.”

Objectives

3.2.1 In order to deliver this vision, there is a need for key objectives to focus investment and measure the success of our achievements. In 2015, the WMCA published Movement for Growth, The West Midlands Strategic Transport Plan (STP) which included nine objectives. This Freight Strategy uses the nine STP objectives from Movement for Growth.

2015 Strategic Transport Plan	Freight Relevance
Economic Growth and Economic Inclusion	
ECON1 To support growth in wealth creation (GVA) and employment (jobs) in the West Midlands, as a prized national economic asset	Efficient logistics and excellent connectivity are recognised as being important drivers of growth.
ECON2 To support improved levels of economic well-being for people with low incomes in the West Midlands to help make it a successful, inclusive, European city region economy.	The logistics industry is an important employer in its own right. Freight strategies can be used to direct employment where it is most needed.
Population Growth and Housing Development	
POP1 To help meet future housing needs, by supporting new housing development in locations deemed appropriate by local planning authorities, following their consideration of sustainable development criteria.	Improved freight operations, through Construction and Logistics Plans, better routeing, and safer vehicles, can support efficient and safe delivery of housing.
Environment	
ENV1 To significantly improve the quality of the local environment in the West Midlands	While the impact of freight movements on local areas is perceived as being significant, there is much that can be done to address such concerns, including moving freight more efficiently (fewer vehicle trips) and more sustainably.
ENV2 To help tackle climate change by ensuring large decreases in greenhouse gas emissions from the West Midlands	Freight transport is a significant contributor to GHG emissions. Cleaner alternative vehicles and fuels can contribute to reducing GHG but current levels of uptake are low.
Public Health	
PUBH1 To significantly increase the amount of active travel in the West Midlands	HGV traffic can be a deterrent to uptake of active travel, through perception of risks to vulnerable road user safety.
PUBH2 To significantly reduce the number and severity of road traffic casualties in the West Midlands	Accidents with goods vehicles are a significant issue
PUBH3 To assist with the reduction of health inequalities in the West Midlands	Freight transport is a significant source of harmful pollutants, particularly in inner urban areas.
Social Well-Being	
SOC1 To improve the well-being of socially excluded people	Again, freight investment and policies can be used to improve the attractiveness of areas for investors

④ OUR STRATEGY

Our Approach

- 4.1.1 Our approach is designed to complement and influence the other transport, economic and land use plans in the Metropolitan area. It is intended to be delivered as a partnership between the various stakeholders, including the logistics industry and other businesses in the West Midlands.
- 4.1.2 Our strategy is unlikely to require major capital investments but may influence the pattern of general transport investment, for which freight is but one component. However, some investment may be required for projects focussed on freight and where value for money can be demonstrated.
- 4.1.3 Delivery of our vision is likely to take 20 years, however, we will identify and prioritise “quick wins”, which deliver measurable benefits within 3 years.
- 4.1.4 In line with Movement for Growth, our strategy is based on developing and enhancing the way that freight is managed, looking at overarching policies, supported by three tiers of the transport system.

Overarching Tier

4.2.1 We will work in partnership with industry and other authorities in the West Midlands to deliver the objectives of the strategy. In order for the West Midlands Metropolitan area to be seen as a beacon for logistics best practice, we will encourage innovation and work with partners in the UK and internationally to identify and implement better ways of managing the movement of goods.

4.2.2 Better data needs to be collected to support decision making.

4.2.3 Policies to support this tier will include:

- Delivering the strategy working in partnership with a Logistics Forum;
- Ensuring that the West Midlands is seen as a beacon of logistics best practice internationally;
- A programme of data collection, to address gaps in our understanding of freight movements;
- Encouragement of innovation in logistics management;
- Ensuring that the local workforce benefits from growth in logistics, including ensuring the right skills are available; and
- Working with the best partners in industry and internationally to deliver improvements.

National and Regional Tier

4.3.1 We wish to influence and support investment in the transport routes which link the West Midlands to its markets in the UK and overseas. A key role in achieving this objective will be to work through Midlands Connect to ensure that the Metropolitan area is well served by a comprehensive network of strategic roads and railways.

4.3.2 In particular we wish to see:

- Adequate capacity provided on motorways serving the region and improved reliability for long distance road transport;
- Completion of planned investments in Smart Motorways and addressing localised capacity constraints;
- Maximum volumes of “through” freight diverted onto the M6 Toll;
- Adequate capacity and electrification provided on rail routes to and through the region, particularly to the main deep sea ports and the Channel Tunnel;
- Freight to be provided with an adequate share of capacity released on main routes when HS2 is opened;
- Freight needs to be taken into account when planning passenger rail services;
- Continued development of Strategic Freight Interchanges (SRFI) and support for SRFI proposals in and near to the West Midlands;
- Gaps in the provision of Intermodal Rail Freight Interchanges (IRFI) to be addressed, particularly in the Black Country with adequate capacity on routes serving IRFI;
- More direct connections to be provided from the rail network to business premises; and
- Improved access to regional airports and encouragement for these to be developed as air freight hubs.

Metropolitan Tier

4.4.1 Within the West Midlands, we must provide and manage infrastructure which makes it easier for goods to move around the Metropolitan area efficiently, reliably, and sustainably. This will generally mean movement of goods by road (including to and from rail interchanges), but the region's canals can also play a role. Proposals to deliver this include:

- Ensure the Key Route Network has appropriate measures for freight, with elements of the network identified for special consideration.
- The KRN will deliver the following objectives:
 - Provide measures to enhance road journey time reliability;
 - Provide dynamic traffic management to better reflect and respond to business and freight requirements during differing time periods;
 - Reduce carbon emissions as road freight traffic flows become more reliable; and
 - Reduce unnecessary road freight in residential areas
- Provide safe and secure parking for HGVs where it is needed.
- Support greater use of water freight.
- Enhance road safety for HGV movement..

Local Tier

4.5.1 It is at the local tier where action is likely to have the most impact. Putting resources together as a group of major towns and cities we can develop common solutions which will help businesses to reach their customers efficiently and sustainably. Specific areas include:

- Use of technology;
- Improving Air quality;
- Use of Consolidation; and
- Retiming of Deliveries.



Delivering the Strategy

4.6.1 The Freight Strategy requires an Implementation Plan to achieve changes on the ground to meet the Strategy's objectives. The Implementation Plan is set out in Chapters 5 and 6 of this document and develops an approach to local freight movements which is comprehensive and makes use of the full range of new techniques being delivered internationally. Solutions will be delivered through the Metropolitan Logistics Forum, ensuring that they are focussed on local needs.

- A comprehensive Urban Freight Management Plan making use of recent developments in logistics best practice and delivered in partnership with industry to include:
 - Freight operator recognition;
 - Delivery and servicing planning to reduce trips generated;
 - Innovations to improve the safety of vulnerable road users, including vehicle standards and driver training;
 - Construction logistics innovations to enable housing and business growth to be delivered efficiently;
 - Establishing urban delivery platforms, and specialised consolidation centres ;
 - Controlling freight vehicle access and routeing; and
 - Alternative/innovative mode use for urban freight shipments (e.g. Freight tram, cycle, or canal).





5 GOVERNANCE & DELIVERY

Role & Responsibility of the WMCA

5.1.1 The West Midlands Combined Authority is well placed to manage and deliver the freight strategy. There are clear benefits in a co-ordinated approach between the local authority members of the CA including:

- Ensuring a common approach across the Metropolitan area;
- Bringing together expertise and experience from the members and other stakeholders; and
- Being able to apply new powers and resources, particularly resulting from the devolution deal.

5.1.2 However, experience international and in the UK underlines that freight strategy is best delivered as a partnership – between different authorities, between the public sector and businesses, and between infrastructure owners, operators, and customers. Therefore, while core responsibility for developing and delivering the freight strategy lies with WMCA, structures are required to support delivery including dedicated staff, a budget to allow policies to be implemented, and a West Midlands Logistics Forum (WMLF) to co-ordinate and take forward delivery.

West Midlands Logistics Forum

5.2.1 The purpose of the Forum will be to bring together the main stakeholders with an interest in freight issues across the West Midlands. It will serve as the primary body to oversee the delivery of the freight strategy and the supporting Implementation Plan, through partnership working. The model is built on the successful experience of Transport for London's Freight Forum.

5.2.2 The Forum requires a number of features to make it sustainable. This includes:

- Strong support from the organising authorities, which identifies the Forum as a key component in developing and delivering logistics policies.
- Making sure that the membership includes people who bring experience and commitment.
- Delivering projects through Working Groups to ensure that full Forum meetings are not diverted with detail.
- Making Forum meetings manageable, measurable, worthwhile and interesting – and keeping participants, particularly industry, engaged in overseeing and delivering a tangible work programme.
- It will continue to update and amend the Freight Strategy to take account of changing priorities.

5.2.3 The Forum must include a mix of industry, local government, and other stakeholders. Ideally, industry representation should be broad enough to include expertise from a range of sectors including both freight operators and freight customers as well as reflecting differing size of organisation who may have differing issues. Involvement of the LEPs will be particularly valuable.

5.2.4 An essential initial phase of the set-up of the Forum is to establish its governance, its objectives, key outputs and measures of success and how it contributes to the overall Freight Strategy.

Key Tasks

5.2.5 The key tasks of the Forum will be to:

- Provide a group specifically focused on freight issues within the West Midlands.
- Provide a platform to engage with stakeholders by enabling them to raise freight-related issues and work in partnership with the appropriate organisations to find solutions.
- Promote the importance of efficient, safe and sustainable freight transport for the West Midlands economies and communities.
- Oversee delivery of the West Midlands Freight Strategy through its supporting Implementation Plan.
- Review and revise the West Midlands Freight Strategy, throughout the implementation phase, to ensure it ongoing relevance and effectiveness.
- Offer recommendations about the prioritising of projects.

5.2.6 In addition to the above activity, specific tasks the Forum will undertake are:

Data collection: The Forum will have responsibility for freight data collection, which is crucial in helping to understand the exact nature of freight movement into, within, out of and through the West Midlands. The data will be used to inform the Forum's selection of measures and the prioritised work programme.

Measure Selection: The Forum will select suitable measures (options are presented throughout Section 6) and prioritise these for implementation within its work programme, allocating responsibilities for delivery to the relevant Working Group(s). Working Groups are discussed in more detail in Section 5.3.

Beacon: The Forum will continually work towards national and international recognition of the West Midlands as a leader in innovative and effective urban freight management solutions – not just doing bare minimum, but effectively promoting freight management as a critical component of urban transportation and economic prosperity

Progress Reports: The Forum will formally report annually on its work and progress in delivering the Freight Strategy and its component Implementation Plan. Informal reporting on Forum and Working Group progress will be given at each Forum meeting.

Membership

5.2.7 An essential initial phase of the set-up of the Forum is to establish its governance, its objectives, key outputs and measures of success and how it contributes to the overall Freight Strategy.

5.2.8 The Forum must include a mix of industry, local government, and other stakeholders. Industry representation should be broad enough to include expertise from a range of sectors including both freight operators and freight customers as well as reflecting differing size of organisation who may have differing issues. Involvement of the LEP will be particularly valuable.

5.2.9 Therefore the membership of the Forum will comprise all key stakeholders with an interest and involvement in the movement of freight within the West Midlands, including:

- WMCA;
- The 7 WM local authorities;
- Industry operators from across sectors and reflecting differing sizes;
- LEPs;
- Major freight trip generating businesses;
- West Midlands Police;
- Industry trade associations (For example, Freight Transport Association, Road Haulage Association);
- Environmental groups; and
- Other interested parties.

Reporting

5.2.10 The Forum should formally report annually on progress in delivering the Freight Strategy and its supporting Implementation Plan, with evidence of impact and improvements, along with recommendations on future measures to further enhance performance

Timescales

5.2.11 Setting up the initial membership and first Forum meeting will take up to 6 weeks. This will involve identification of the target businesses together with invitations through industry bodies, who themselves will be key potential Forum members. These will include, in addition to industry representatives, the Freight Transport Association, the Road Haulage Association, the Rail Freight Group, and the LEPs.

Costs

5.2.12 Costs associated with the Forum set-up and ongoing management will relate predominantly to staff time required to coordinate the group, manage changes in participant details and keep the Forum active. Venue and catering costs will also be incurred, as a result of periodic meetings.

5.2.13 The forum should also have a delivery budget to fund studies and projects.

Forum Working Groups

5.3.1 Forum Working Groups are useful for the delivery of the Strategy, through the Implementation Plan. The main initiatives identified in should be delivered through these dedicated Working Groups. While the Forum may include numerous members, the Working Groups will be a core of approximately 6 key members, each committed to using their experience to ensuring successful delivery. Working Groups are likely to meet 1-2 monthly while their projects are progressing.

5.3.2 The Forum will oversee three Working Groups, which will each have responsibility for development and delivery of Implementation Plan measures specific to their areas of focus.

5.3.3 The structure of the Working Groups needs to be agreed by the Forum as well as their exact focus and priorities, however, as an indication, the Working Groups will cover:

- **Road** – to deliver freight operator recognition and other environmental and safety improvements and liaise on highways issues, such as Fleet Recognition schemes;
- **Modal Shift** – to ensure that plans are delivered to maximise the use of rail and waterways; and
- **Urban Logistics** – to ensure effective implementation of Out of Hours, Delivery Servicing Plans, Construction and Logistics Plans, and other elements of Urban Logistics.

5.3.3 In time, Working Groups could be expanded or have their own sub-groups if the Forum believes that's necessary in order to deliver the Strategy's objectives.

Meetings

5.3.5 The Forum will meet every two months during its first year of operation in order to ensure that momentum is generated and maintained, with frequency thereafter to be decided by its members.

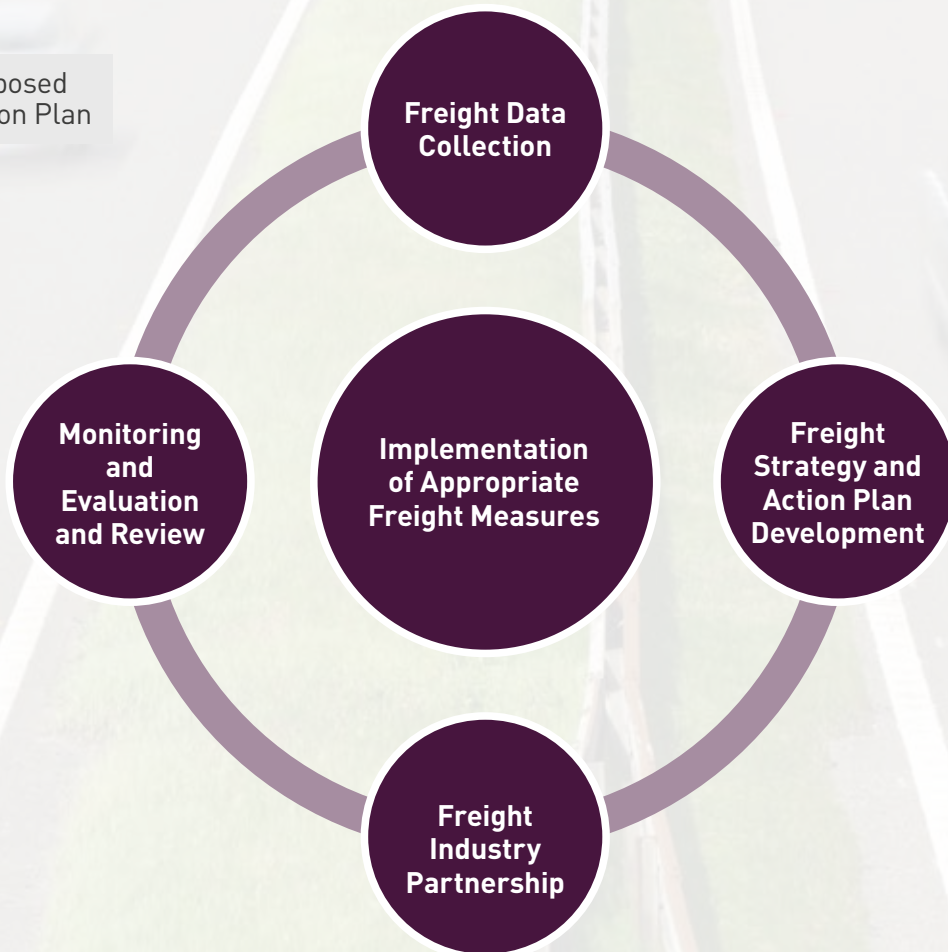
6 IMPLEMENTATION PLAN

Introduction

6.1.1 The Implementation Plan aims to identify and map out the actions needed in order to facilitate the achievement of the objectives in the overall Strategy. This is achieved through a coordinated, integrated and comprehensive planning approach, led by the WMCA through the Freight Lead and the West Midlands Logistics Forum, which cumulates into the development and implementation of innovative logistics measures.

6.1.2 The process is illustrated in Figure 5 below:

Figure 5: Proposed Implementation Plan



6.1.3 It is important to note that this Implementation Plan presents the structure and a selection of measures which can be introduced to deliver the West Midlands Freight Strategy. It will be the Forum and its supporting Working Groups which decide the measures to be introduced and in which priority. The Forum is the core delivery body for the Strategy. The success of the Strategy and this supporting Implementation plan depends on the Forum being well attended, by the right people, willing to participate in and lead delivery of the required programme of work. The structure and objectives of the Forum are covered in Section 5.

Key Measure Proposals

6.2.1 Key to delivery of the Strategy is the implementation of packages of measures which are appropriate to the needs of this area, based on the data collected. The specific measures and their priority will be agreed by the WMCA and the Forum.

6.2.2 Proposed measures include:

- Lobbying and influencing for investment in infrastructure, including routes outside the Metropolitan area which are crucial to deliver efficient logistics.
- Publicising and encouraging businesses to adopt improved logistics practice.
- Undertaking pilot projects and studies.
- Proposing changes to planning requirements or other levers within Metropolitan influence.
- Identifying and securing third party funding in logistics projects.
- Collecting and disseminating data.

6.2.3 The next section summarises a large number of key measures proposed. For each of the key measures, an outline plan has been developed which covers: :

- Summary of the measure;
- Its benefits and contribution to objectives;
- Responsibility for delivery and supporting roles;
- Timescales and, milestones; and
- Potential costs.

6.2.4 The outline plan has been provided as an Appendix to this strategy. It is provided in spreadsheet form, allowing it to be used as a tool to manage and monitor projects.



Overarching Tier

Overarching Tier Proposed Measures

A freight data warehouse and a programme of data collection

Policy recognition of logistics beacon status / participation in best practice development

Encouraging and participation in innovation in the logistics sector

A freight data warehouse and programme of data collection

- 6.3.1** Lack of freight data is identified as a key issue. Without high quality data it is difficult to forecast changes in demand, identify constraints, measure capacity shortfalls, or quantify the benefits of proposed interventions. This puts freight planning at a particular disadvantage compared to planning for cars or public transport.
- 6.3.2** Clearly data is available. For example, Prism – the West Midlands tool for transport planning - includes base year goods vehicle volumes on highways. The separate GB Freight Model provides base data and forecasts of strategic movements of freight by road and rail. Ad hoc traffic data is available for roads and for rail. But often the data is too coarse to inform regional decision making and particularly delivery at the local level.
- 6.3.3** That is not to say that transport planners should aspire to developing a freight data set and model as sophisticated as Prism. Freight movement is much more difficult to model, as large volumes of freight are controlled by small numbers of businesses who take into account their own circumstances when making logistic decisions.
- 6.3.4** In practice, different sets of freight data may be required to inform different types of policy decision. For example:
- Decision making on the right strategy regarding the M6 Toll is hampered by a lack of detailed data on freight traffic on the M6 or the M6Toll. Where are HGVs joining and leaving each road? How far do they travel? Are there other freight movements using A roads that might divert to the Toll, or to the M6 to fill released capacity? Ultimately, what are the benefits of diverting more lorries onto the Toll?
 - In contrast, planning for a consolidation centre will require detailed data on its target market, for example, deliveries to a retail centre.
 - 'Nature of freight' surveys identify and profile movements on strategic routes but there is also a need to understand activity on High Streets to determine the potential for urban freight management interventions.
- 6.3.5** The WMCA should therefore act as a focal point for freight data, defining, collecting, compiling and disseminating available information and commissioning data collection exercises as required.



Policy recognition of logistics beacon status and participation in best practice development

- 6.3.6** Given its strategic location and importance, the West Midlands should undoubtedly be seen as a best practice beacon for the management of freight movements. What that means in practice is having policies in place to proactively promote safe, efficient and sustainable freight movements and a clear set of objectives to work towards.
- 6.3.7** As well as identifying opportunities to manage freight differently, the West Midlands should be seen to develop suitable initiatives and interventions, implement them, assess their impact, alter them and then showcase their benefits both within the UK and internationally.
- 6.3.8** The West Midlands should sit alongside key European cities like Paris, Barcelona and Berlin in being seen as a trailblazer in the field of urban logistics planning and management. Plenty of collaborative project opportunities are available for willing city partners across Europe to work together to share best practice and to learn from others. The West Midlands should be an active partner, or ideally leader, in those city freight networks and projects.

Encouraging and participation in innovation in the logistics sector

- 6.3.9** The West Midlands is recognised as a centre for innovation and excellence in the automotive industry. There is potential to link this expertise to strategy to logistics beacon status to ensure that the West Midlands leads in important logistics developments such as:
- Zero emissions vehicles – for trunk haulage as well as “last mile”;
 - Communications and the internet of things (smart parking bays etc.); and
 - Autonomous vehicles, connected vehicles, and platooning of lorries on motorways.

National and Regional Tier

- 6.4.1** The development of an efficient, high quality, infrastructure network linking the Metropolitan area to ports and markets will be a key role for Midlands Connect. This strategy proposes working with and through Midlands Connect to ensure that freight needs for businesses and communities in the Metropolitan area are understood and addressed. In particular, the WMCA and Logistics Forum will work with Midlands Connect on the following initiatives.

National and Regional Tier Proposed Measures

Additional Managed Motorways Schemes

Encouraging Greater Freight Use of the M6 Toll

Motorway Junction Access and Motorway Connectivity Enhancements

West Midlands Strategic Freight Corridor

Providing Capacity For Rail Freight

Maximising the economic Benefits of our National Airports

Encouraging the development and growth of Rail Freight Interchanges

Improving access to rail freight for industry

Additional Managed Motorways Schemes

- 6.4.2** In 2006, Highways England commenced its “Managed Motorways” strategy (previously referred to as ‘Active Traffic Management’) which focused on the use of technology to regulate and manage traffic flows on the motorway network. The objective of Managed Motorways was to deliver more reliable journeys which would generate economic and carbon benefits as well as improvements to road safety.

6.4.3 The first trial of Managed Motorways was in 2006 on the M42 between J3a and J6. Highways England's post project study found that:

- The number of collisions decreased from an average of 5.1 per month to 1.8 per month;
- Drivers' ability to predict their weekday journey times has improved by up to 27%;
- Fuel consumption has reduced by 4%; and
- Vehicle emissions have reduced by up to 10%

6.4.4 The metropolitan area believes that Managed Motorways has been a great success and demonstrated that the use of technology to create dynamic highway networks helps reduce congestion, generates economic and carbon benefits for our area. With a cost per kilometre of £5.6M against the average £25M per kilometre of traditional motorway widening schemes, we recognise the value for money of Managed Motorways as well as the ability to deliver the overwhelming majority of schemes within existing motorway footprints rather than requiring new land take.

6.4.5 However, there are still significant 'Managed Motorway' gaps on the motorway network in and around the metropolitan area.

6.4.6 Whilst acknowledging that Highways England has undertaken studies to assess future demand, the metropolitan area believes there is support and justification to suggest further Managed Motorway schemes required at the following locations:

- M5 between M6 Interchange and J3 ; and
- M42 Junction 9 and 11.

Encouraging Greater Freight Use of the M6 Toll

6.4.7 There is an imbalance between the levels of freight carried by the M6 and parallel M6 Toll, even for national long distance freight movements.

6.4.8 Stakeholders have indicated that tolls are not considered to be a standalone barrier as long as it is perceived that the toll 'buys' benefits which are greater than the cost, e.g. fuel, time, reliability savings. In the case of the M6 Toll, the perceived levels of benefits from the tolls are not attractive to all freight users, whilst the time periods for reduced tolls are not perceived to reflect road freight movements or demands.

6.4.9 If more long distance freight traffic could use the M6 Toll, capacity would be released on the M6 for local traffic and potentially reduce congestion. More research is needed to understand how the released space would be used and to quantify other benefits of diversion to the M6 Toll such as the impact on metropolitan air quality.

6.4.10 Therefore, the metropolitan area is proposing the following short and long term proposals:

Shorter Term: the metropolitan area is keen to work with MEL through the West Midlands Logistics Forum to identify solutions including the potential for more variable time structures, distance based tolls and greater levels of affordability of tolls in order to generate additional patronage on the M6 Toll. Ultimately, additional patronage is mutually beneficial to both the metropolitan area as outlined above and MEL who would benefit from additional income.

Longer Term: Recognising that MEL is contracted to maintain and operate the M6 Toll until 2054, the metropolitan area is of the view that unless the short term approach proposed delivers a better balance of traffic that in the long term the model of how the M6 Toll is owned and operated would need to be changed. In the exploration of potential options WMCA is keen to assess new governance structures which potentially splits 'ownership' away from 'operation'. This may provide the opportunity to ensure the M6 Toll can fully contribute to the wider economic, social and carbon reduction objectives of the metropolitan area whilst maintaining the commercial requirements of MEL;

Motorway Junction Access & Motorway Connectivity Enhancements

- 6.4.11** The UK's motorway and trunk road network carries the overwhelming proportion of road freight and therefore access to the motorway network via junctions and is of key importance. Motorway junctions are the interface between the motorway network and the local highway network and with the majority located on the principal road network means that junctions are key freight destinations but also carry localised traffic movements as well as being the location of some major developments.
- 6.4.12** Junctions are the responsibility of either the local highway authority or the HA and therefore subject to differing traffic management as well as differing responsibility for enhancement schemes and associated funding.
- 6.4.13** In October 2012, the DfT announced schemes which would be included in the HAs 'Pinch Point Programme' aimed to deliver small scale schemes to address capacity constraints at key locations on the national road network.
- 6.4.14** In 2012 Highways England commissioned a study into future requirements of the motorway network aligned to future metropolitan area population, economic and major development needs.
- 6.4.15** Whilst the study is yet to report, the metropolitan area believes that in order to ensure reliable and efficient road freight access to national and international markets, major infrastructure enhancements are required for the following motorway sections and junctions and need to be considered in the development of future Highways England investment programmes:

- M5 Junction 1, 2 and 3; M6 Junction 8, 9 and 10; and
- M54/ M6/ M6 Toll Link Road.

West Midlands Strategic Freight Corridor

- 6.4.16** The rail schemes and initiatives required to meet future growth have been detailed through the West Midlands Rail Vision which was developed in partnership with the West Midlands Regional Rail Forum.
- In the development of both documents, there is synergy for the promotion of a new West Midlands Strategic Freight Corridor which can support the objectives of both this Freight Strategy and those of the West Midlands Rail Vision.
- 6.4.17**
- 6.4.18** The metropolitan area's strategic location at the centre of the UK's rail network means significant numbers of longer distance freight trains pass through our area. Any such services moving between South Wales and the South West to the East Midlands, North East, or Yorkshire, for example, pass through the metropolitan area via the central Birmingham and Water Orton corridors.
- 6.4.19** By 2030 the Water Orton corridor and central Birmingham rail network is forecast to see a substantial increase in freight traffic from 50-75 trains per day to 75-100 per day.
- 6.4.20** The metropolitan area believes there is an emerging case for the development of a West Midlands Strategic Freight Corridor from Stourbridge through to Lichfield via Walsall. This would allow the metropolitan area the opportunity to meet strategic and local needs through the subsequent delivery of the interconnected and dependent schemes.
- 6.4.21** This proposal would deliver a new alternative corridor for strategic rail freight movements across the metropolitan area. The scheme would enhance journey times, reliability and rail path availability all of which will increase the attractiveness of rail freight to more businesses to underpin further growth in the sector. This proposal would complement the SRFN.
- 6.4.22** Should the West Midlands Strategic Freight Corridor be electrified in alignment with the Government's aspirations for a national electric freight spine, its attractiveness to rail freight operators and businesses would be enhanced further from shorter journey times, more flexible rail path timings, network capacity and greater market accessibility and connectivity.

6.4.23 There is a need to ensure that the West Midlands Strategic Freight Corridor is developed in a manner which is compatible for WMCA's aspirations for a Metro link between Wednesbury and Brierley Hill and longer term proposals for tram / tram/rail. The metropolitan area aspires to increase passenger rail services between Walsall and Birmingham city and this proposal needs to be complementary to this aspiration.

Providing Capacity for Rail Freight

6.4.24 Research for this strategy and consultation with stakeholders has asserted the need to provide capacity for rail freight to, from, and through the West Midlands to grow. In particular, there are four aspects where this strategy recommends action:

- Ensuring that rail freight paths are provided when track capacity is released following the opening of HS2.
- Lobbying and representing the interests of the West Midlands through the rail industry long term planning process to ensure that required capacity is provided on all strategic routes to and through the region.
- Ensuring that increasing freight demand is taken into account when planning passenger services within the metropolitan area.
- Protecting existing and potential interchange sites.

Maximising the Economic Benefits of our National Airports

6.4.25 Nationally, Heathrow handles the overwhelming majority of Air Freight volumes in and out of the UK. This requires national road freight movements from across the UK to Heathrow.

6.4.26 Understanding the air freight supply chain and the needs of local businesses will allow us to work with airports, stakeholders and freight operators to help promote the case and benefits of air links to new market destinations, as well as allowing us to address any other barriers identified.

6.4.27 The key opportunities to maximise air freight are likely to be:

- Promote direct freight services or freight use of passenger services to a wider range of destinations.
- Promote hub and spoke services linking regional airports to European freight hubs offering a wide selection of destinations.

Strategic Rail Freight Interchanges and Intermodal Rail Freight Terminals

Strategic Rail Freight Interchanges

6.4.28 The Data Report demonstrates the important role and opportunities played by SRFI in supporting our economy and supporting national and international freight movements as well as the regional 'supply gap' of such warehousing in order to meet projected demand up to 2027.

6.4.29 SRFI are important employment centres. When located in the West Midlands our businesses benefit from excellent access to national distribution centres. More SRFI directly leads to more rail freight – a fact acknowledged by Network Rail and the DfT.

6.4.30 Identifying a suitable approach to encouraging the development of SRFI in and near to the West Midlands will require strategic coordination between West Midlands authorities, transport stakeholders, developers, and the freight and logistics sector. Therefore, the metropolitan area is proposing the following approach to encourage the development of SRFIs:

Maximise the potential of existing SRFI: The SRFI located around the metropolitan should be expanded where possible and businesses encouraged to locate there within the framework set out by relevant Local Plans.

Encouraging future SRFI development: We will work with the appropriate Planning Authorities within the wider West Midlands region through the Duty of Cooperation and through appropriate LEPs to ensure that:

- Potential SRFI locations are identified and safeguarded; and
- Planning and DCO applications for SRFI are encouraged and supported where relevant criteria are met and where there is real potential for rail freight use.

6.4.31 This strategy acknowledges that several developers have aspirations for a SRFI in southern Staffordshire. The strategy is neutral as to a preferred location, and acknowledges that, while there is finite demand for large warehouses, any development which provides rail access to a concentration of distribution centres will maximise potential for rail freight.

Intermodal Rail Freight Interchanges

6.4.32 IRFI are characterised as intermodal transfer terminals which are not located in an SRFI.

6.4.33 Key Issue C2 identified the need to provide additional IRFI facilities in and around the metropolitan area to:

- Provide capacity to meet future demand;
- Address the existing spatial gaps in provision, notably the Black Country; and
- Ensure rail freight operators have access to the metropolitan area to maximise rail freight potential.

6.4.34 Work undertaken by independent consultants suggested there was a strategic case for additional IRFI terminal in the Black Country which would address some of these issues. The study assessed potential suitable sites and identified Bescot Yard as the most suitable location as a consequence of:

- Connectivity to local and national road networks;
- High levels of rail connectivity and accessibility to key markets and destinations;
- Proximity to the Black Country providing accessibility to a critical mass of the predominantly SME business sectors which are likely to use intermodal rail freight as well as Darlaston Enterprise Zone;
- Electrification of Bescot Yard in reference to DfT proposals for the electric freight spine; and
- Strategic location on the national rail network and associated rail connectivity to markets.

6.4.35 An outline assessment of an IRFI scheme demonstrated that an average sized IRFI in the Black Country, used by a single rail freight operator, would generate economic benefits in the region of £13M per year in terms of GVA. Such an IRFI would act as a regional hub for the FOC and could turnover as many as 270,000 TEUs per annum .

6.4.36 The WMCA would therefore welcome the opportunity to discuss IRFI provision and facilities with the rail freight industry in order to develop a consensus. In particular, WMCA would welcome the opportunity to support the development of an IRFI in the Black Country.

6.4.37 Other locations for IRFI will also be supported and encouraged where appropriate.

6.4.38 In the longer term we are keen to work with the rail freight industry to explore the potential for multi-operator open access IRFIs across the metropolitan area which would act as a regional hub for multiple FOCs to provide the capacity to meet future regional demand for rail freight, particularly intermodal traffic.

6.4.39 We have named this approach 'Rail Freight Gateway'. We believe this solution would present a better long term outcome for the metropolitan area and the rail freight sector. Subject to future stakeholder engagement, Bescot Yard would represent a potential site to such a Rail Freight Gateway site reflecting its strategic size, location and rail network access and connectivity.

6.4.40 We believe the strategic benefits of the scheme would be:

- Provide an IRFI which has high levels of connectivity and accessibility to key markets and destinations such across the UK.
- A highly attractive facility to encourage inward investment into the metropolitan area supporting the potential of economic development schemes such as Darlaston Enterprise Zone.
- Allow for greater innovation and market accessibility by rail freight operators.
- Reduced costs for rail freight operators compared to developing and maintaining separate IRFI, allowing rail freight to enhance the competitiveness of their product.
- Brings back into use a strategic site in the heart of the Black Country supporting job creation and acting as a catalyst for economic development.
- Efficient land use across the Rail Freight Gateway through joint use of facilities, storage areas, overhead cranes and access points.
- Reduce overall HGV mileage on the UK road network through modal shift to rail, reducing associated congestion and carbon emissions.
- Better integration with rail path planning and service coordination.
- The critical mass of rail freight demand to justify any future complementary investment in the rail network to further enhance access and connectivity to markets.
- Finally, allow a level of customer information and sources akin to public transport with multi-operator services, times, costs and destinations all available from a single source.

6.4.41 Ultimately, the market should drive demand. However, reflecting the potential benefits of the proposal and the role of the public sector, we are keen to work with the rail freight industry and stakeholders to further develop the proposal recognising the potential wide range of benefits which could be captured for the metropolitan area as well as FOCs and the rail industry.

Improving Access to Rail Freight for Industry

6.4.42 IRFI are important facilities for the movement of a wide range of products for businesses which cannot have direct access to the rail network or which have irregular volumes of potential rail freight. SRFIs provide an opportunity to maximise rail freight to and from large distribution centres.

6.4.43 However, for businesses producing or consuming large volumes of goods, a direct connection to the rail network will always be the best option for maximising rail freight and minimising local road freight traffic.

6.4.44 A major challenge is to provide rail connections to large manufacturing sites which never had, or had and lost, a rail connection, particularly in the automotive industry.

6.4.45 There is also ongoing need to provide and encourage rail freight access to a range of facilities such as:

- Aggregates or concrete terminals;
- Waste transfer or disposal facilities; and
- Steel stockholders or suppliers.

6.4.46 The strategy recommends:

- A comprehensive programme of identifying potential rail freight facilities;
- Planning protection against development which might render future connections unfeasible; and
- Working across the rail industry to identify mechanisms to support the provision of rail connections with grant or loan support.

Metropolitan Tier

Metropolitan Tier Proposed Measures

Metropolitan Area Urban Road Freight Network

Safe and Secure Overnight HGV Parking

Supporting a Greater Use of Water Freight

West Midlands Key Route Network

6.5.1 The West Midlands has a Key Route Network for both passengers and freight. The Logistics Forum will need to ensure that key measures for freight users continue to be adequately reflected in KRN priorities.

6.5.2 The performance measures for the KRN already include journey time reliability.

Safe and Secure Overnight HGV Parking

6.5.3 Providing safe and secure overnight HGV parking is a long standing priority for the road freight industry which was reflected by the West Midlands LTP3 and was the subject of studies by the metropolitan area in 2007 and again in 2009.



6.5.4 Stakeholders outlined that with the West Midlands being the centre of the national road network there needs to be HGV parking for national road freight movements through the metropolitan area as well as enhanced local provision to support deliveries in and around the metropolitan area. The metropolitan area believes that the issue can be tackled at two levels:

Strategic HGV Parking Sites on the national road network

6.5.5 The Data Report demonstrated the lack of larger strategic HGV parking on the motorway and trunk road network in and around the metropolitan area. Such facilities support the road freight industry by providing flexibility for driver's time regulations and delivery planning which allows for efficient utilisation of drivers and vehicles. The best practice sites include a full range of facilities and amenities including the provision of secure overnight parking. The West Midlands Regional Lorry Parking Study (2005) identified the following locations in or immediately around the metropolitan area where more provision is required:

- M6 from Jct 13 to Jct 16;
- M5 from Jct 1 to Jct 4;
- M5 from Jct 5 to 8 and M50;
- M40 from Jct 16 to Jct 12; and
- M42 from M6 to regional boundary.

6.5.6 For illustrative purposes, 200 spaces per site would lead to 1000 additional spaces, increasing existing provision by around 50%; The metropolitan area is keen to work with motorway service station operators, commercial HGV Parking providers, Highways England and relevant Planning Authorities to identify opportunities to provide Strategic HGV parking facilities at these locations on the national road network to address demand.

Local HGV Parking Facilities in the Urban Area

6.5.7 Whilst strategic HGV parking will support operators undertaking national road freight movements, there is also a need to address localised HGV parking issues to support deliveries to/ from centres, industrial areas, business parks etc.

6.5.8 Such facilities allow drivers to comply with driver time regulations without the need to park in unsuitable locations on the highway or in residential areas. Such sites can be straight forward road side lay-bys or more formal off-street facilities, such as Brewery Street Coach & Lorry Park in central Birmingham which opened in 2011.

6.5.9 In addressing the issues and identifying potential locations against demand and destinations, the West Midlands Lorry Parking Study (2005) identified the following broad locations, which subject to review, are best suited to meet demand:

East Wolverhampton	West Coventry
South Wolverhampton	East Coventry
North Dudley	Walsall
Sandwell	West Birmingham
South Dudley	East Birmingham
Halesowen	North Birmingham
Hams Hall	South-West Birmingham
North Coventry	

6.5.10 Following the DfTs publication of “Strategy for Lorry Parking” (2009) Centro considered the use of local rail park & ride sites to provide some HGV parking facilities. The concept was assessed and a number of operational difficulties were highlighted, as well as access and construction design constraints.

6.5.11 Therefore the use of park & ride is not expected to be the primary approach to delivering facilities to meet the demand outlined above, however should an appropriate park & ride site be forthcoming it will be considered on an individual site basis rather than a blanket policy approach.

Supporting a Greater Use of Water Freight

6.5.12 The West Midlands Freight Canal Study highlighted some potential for the movements of low value, time-unrestricted freight movements such as domestic waste or construction aggregates on local canals.

6.5.13 The study identified 49 sites in Birmingham and 27 sites in Coventry that offered potential for wharf locations, although the majority were not protected for freight related activity in land use plans.

6.5.14 Whilst recognising that the practicalities and market demand will differ for different centres, the metropolitan area is advocating the following multi stepped approach to encouraging greater use of water borne freight movements:

Step One: Greater protection of wharf sites in Local Plans. By protecting potential sites against other development, noticeably residential, there is certainty for interested companies to invest in water freight development

Step Two: Identification of canal/ lock infrastructure enhancements. Working with the Canal & River Trust (formerly British Waterways) to identify potential schemes and new funding to invest in canal infrastructure to facilitate greater water freight use.

Step Three: Use of the planning system to identify any potential use of water freight in the movement of building/ construction aggregates and materials for new developments in the proximity of canals;

Step Four: work with freight operators to access national or international funding sources and grants which would facilitate greater water freight use in meeting the above.

Local Tier

Local Tier Proposed Measures

Freight operator recognition:

Delivery and servicing plans (DSP)

Innovations to improve the safety of vulnerable road users

Construction Logistics Plans (CLP)

Encouragement of ultra-low or zero emissions vehicles

Trialling and Encouraging Out-of-hours deliveries

Establishing urban delivery platforms, and specialised consolidation centres

Controlling freight vehicle access and routing

Alternative/innovative mode use for urban freight shipments

6.6.1 Despite an increasingly higher profile in recent years, freight transport still remains the poor relation in urban mobility planning.

6.6.2 Yet efficient, economic, safe and sustainable freight movement is absolutely essential to our everyday lives and is the lifeblood of our town and city economies, ensuring we receive the goods we need at the time and location we want, in perfect condition.

6.6.3 To date, many sustainable distribution projects at the local, national and European levels have focused on the wide variety of individual freight transport measures which can be implemented to help improve local urban and interurban freight performance, such as;

- Use of Consolidation Centres;
- Trialling Out-of-hours deliveries;
- Establishing urban delivery platforms; and
- Controlling freight vehicle access.
- Alternative/innovative mode use for urban freight shipments (e.g. freight tram or barge)

6.6.4 All of these measures are potential solutions to help improve urban-interurban freight movement but often individual freight management measures (or a small cluster of measures) are introduced simply because they seem like a good idea or there is some political will to trial them.

6.6.5 This 'piecemeal' approach does not necessarily involve, at the outset, the collection of data for analysis to actually understand the exact nature of local freight movement and its associated challenges, nor the development of coherent urban freight management strategies with clear objectives and corresponding action plans with clear targets, timescales, deliverables and responsibilities.

6.6.6 The Urban Freight Management Plan, which is a subset of the overall Implementation Plan, highlights a framework of measures which can be used to help streamline the level of freight movements which then contributes to the objectives of the Strategy.

6.6.7 The proposed Plan covers a range of measures for the Forum to consider for reducing the levels of freight activity. There is no single 'silver bullet' solution but rather the adoption of a package of these measures will be needed, some of which are appropriate to be led by WMCA and some potentially by business. Each measure adopted will make a contribution to reducing the impact of freight movements in the area. Combined, these contributions should result in the significant level of impact needed.

6.6.8 It is for the Forum to determine which measures are adopted for implementation and in which order of priority within the programme of work.

6.6.9 The Urban Freight Management Plan includes:

Freight operator recognition:

6.6.10 Fleet operator recognition schemes are an important tool for local government to work with industry to deliver improved efficiency and environmental performance, as well as other benefits including safety resulting from driver training. A number of approaches are available, and it would be the responsibility of the Forum or Working Group to establish the best approach.

6.6.11 The Working group will work with industry and public sector representatives to consider options for and produce a recommendation report on the implementation of a fleet recognition scheme within the West Midlands. The report will include a scheme development and roll out plan. Any recommendations will be supported by evidence which demonstrates expected operational improvements in relation to safe, sustainable and efficient freight transportation methods.

Delivery and servicing plans (DSP) and Construction logistics plans (CLPs)

6.6.12 DSPs and CLPs are valuable means by which to deliver significant environmental and efficiency benefits from activity relating to building construction and then ongoing operations.

6.6.13 Effective promotion of CLPs and DSPs is essential. Case studies to demonstrate approaches and benefits are important and implementation will rely on promoting demonstrable examples of successful CLPs and DSPs (in or outside the area).

Innovations to improve the safety of vulnerable road users, including vehicle standards and driver training

6.5.14 West Midlands has ambitious proposals for a significant increase in levels of walking and cycling

6.5.15 The Forum will review the existing and proposed walking and cycling policies and work streams of the West Midlands Combined Authority to identify where the Forum can add value as well as reviewing the data to establish the level of HGV involvement in accidents. This may identify a specific subset of the HGV sector which poses the greatest risk. The range of activities to be considered should include:

- Driver training and fleet accreditation;
- Vehicle standards;
- Cycle training and awareness;
- Identification of hot spots and dangerous time periods;
- Promoting education and awareness of Vulnerable Road Users; and
- Analysis of accidents.

Encouragement of ultra-low or zero emissions vehicles

6.5.16 The encouragement of ultra-low or zero emissions vehicles is perhaps the most challenging but most far reaching of the initiatives. It is important that Ultra low or zero emission vehicles are both available and that a demand is encouraged. This will require engagement with the key players in the industry; freight and fleet operators, vehicle manufacturers and infrastructure providers. The plan will look at the means by which these vehicles could be made available, what the barriers are to uptake and how these can be addressed.

6.5.17 This is an important measure in proactive support of the Clean Air Zone research underway as of Spring 2016. New clean vehicle technology will play an important role within any future plan to introduce vehicle emission based access restrictions.

Trialling and Encouraging Out-of-hours deliveries

6.5.18 Out-of-hours deliveries to retail premises, comprising quiet deliveries at night time and also during the “shoulders” of the day (i.e. prior to opening, after closing), away from peak periods, potentially offers significant benefits to retailers and transport operators, in addition to wider social and environmental benefits.

6.5.19 The Forum will identify and implement at least one opportunity for an Out of Hours Delivery pilot within the West Midlands, with the aim of establishing a case study for the further promotion of such activities. The trial will bring industry and local authority(ies) together to form a project team, using a tested effective methodology, to oversee trial set-up and live activity. Noise monitoring will be used to demonstrate impact compared to ambient noise at the new delivery time. A written case study, accompanied by video and audio footage will be key outputs from this task.

Establishing urban delivery platforms, and specialised consolidation centres

6.5.20 Establishing alternative urban delivery methods and last mile solutions, including close proximity delivery platforms, consolidation centres and other innovative measures can help to better coordinate and reduce the number of HGV trips occurring within town and city centres.

6.5.21 The Forum will explore the potential to develop these solutions and oversee trials of the preferred options to assess the positive benefits of each.

Controlling freight vehicle access and routing

6.6.22 Developing an HGV route hierarchy and proactively publicising it can help to better coordinate HGV movements within and through the West Midlands.

6.6.23 Linking parts of this to a fleet recognition scheme, giving preferential access (by time, location) to cleaner, higher-rated fleets can encourage the uptake of better management and fleet procurement practices.

6.6.24 This is an important measure in proactive support of the Clean Air Zone research underway as of Spring 2016. New clean vehicle technology will play an important role within any future plan to introduce vehicle emission based access restrictions.

Alternative/innovative mode use for urban freight shipments (e.g. Freight tram, cycle, or canal)

6.6.25 The Forum should explore and encourage the use of innovative, alternative modes for deliveries and servicing within the urban area, including cargo cycle services. These alternative modes for urban freight movements are often seen as novelty projects but well-run trials can demonstrate the positive and sustainable benefits of using those which make sound operational sense in the most congested urban areas. The Forum should be seen to spearhead research and implementation in this area.



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WEST MIDLANDS
COMBINED AUTHORITY



Black Country Gateway and Walsall – Stourbridge Freight Line Study

Stage 1 Assessment

Centro

December 2012



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Black Country Gateway Assessment

Stage 1 Assessment

Centro

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Executive Summary

E.1 Assessment Scope

Centro has identified a strategic gap in the spatial provision of intermodal rail freight terminal operations within the Black Country area, following preparation of the emerging Regional Freight Strategy through accessibility analysis of existing Intermodal Rail Freight Terminal (IRFT) sites.

A high level assessment of a new IRFT located in the Black Country has been conducted for Centro to determine the likely benefits arising from such investment in the West Midlands within the intermodal rail market. This included the role of the Walsall – Stourbridge Line, running through the Black Country, in strengthening the case for investment.

E.2 Industry Forecast and Consultation

Industry Forecast

Current industry forecasts for the rail freight market predict growth in the next 20 years. A number of national and regional forecasts have been prepared by the industry but the general trend is that the intermodal market is a significant growth area – 5% per annum was quoted by the industry referring to the MDS Transmodal work for DfT in 2010.

Structural Change

Rail freight industry highlighted evidence of structural change in freight haulage with correlation between past growth, outperforming the general dip in the wider economy in recent years, and investment in rail infrastructure (gauge clearance, train length increase, increase in transport fuel costs). This was suggested as making rail more competitive in the market place not necessarily due to provision of new terminal capacity.

Accommodating Growth – The Issues

With current West Midlands terminals running approximately 70% utilised it was suggested any growth can be accommodated without supply of additional capacity. Some debate was made on the case for new investment - noting capacity constraints on rail network at existing terminal sites (for example, Lawley Street, DIRFT and Birch Coppice) can provide opportunity for new IRFT sites to develop and improve access to market for Black Country businesses – particularly where investment at existing sites to lengthen train capacity or increase turnaround rate is constrained. However the concern lies that this may negatively impact on reducing commercial rates and thereby depresses the commercial viability of new and existing IRFT operations.

Operator Strategies

Alternatively the appetite for freight operators to gain position in a new market – such as intermodal – can be such that investment is made to capture market share of the status quo and to access European markets. Evidence of DB Schenker’s interest in

Bescot Yard and Washwood Heath in the West Midlands demonstrates that purely under utilised facilities in the region does not dissuade interest from the marketplace.

Black Country Accessibility

Catchment area analysis suggested IRFT sites generally attract business within a 30 mile catchment area but majority of which are located within 10 miles. Of this, many are located in the north and west to reflect dominance of the southern ports due to the lack of appetite for businesses to “double back” their transport requirements to and from IRFT facility. This analysis highlighted a case for investment within the Black Country as access would be significantly improved to market via rail freight for many businesses.

E.3 Site Suitability

A number of sites were reviewed within the Black Country area in order to establish site suitability credentials for a new IRFT site.

Twelve sites were located and were subject to additional assessment which arrived at the following shortlisted sites:

- **Bescot Yard** – located on the Walsall and Sandwell MBC border near M6 Junction 9
- **Dudley (former freightliner facility)** – located adjacent to Dudley Zoo and on the path of the Walsall – Stourbridge line
- **Round Oak, Dudley** – located adjacent to the existing steel terminal freight facility in Dudley and the Walsall – Stourbridge freight line alignment

The assessment focussed on these sites using industry standard criteria recommended by the Department for Transport (Strategic Rail Freight Interchange Policy Guidance, Nov 2011).

The outcome of this high level assessment highlighted **Bescot Yard** as having the most suitable characteristics for IRFT investment in the Black Country Area.

E.4 Economic Impacts

A high level wider economic assessment was conducted for the Bescot Yard IRFT proposal, including forecast job creation and Gross Value Added (GVA) impacts:

Total Direct Jobs	Total Annual GVA Impact (000 - 2010 prices)
243	£13309

An additional assessment was conducted for the Walsall – Stourbridge freight line reinstatement. This predicted that the investment will **support 16 gross new jobs** (full time) with associated additional annual GVA impacts of **£2.5 million** (2010 prices).

Given the natural intrinsic link between both schemes, an agglomeration impact assessment was also conducted to account for additionality effects. This highlighted both scheme investments would be predicted to support **over 300 direct jobs** (full

time) delivering over **£17.5 million annual GVA** to the UK economy – equating to a 12% additionality effect.

E.5 Costs

Estimated capital cost for Bescot Yard IRFT is **£76 million (2012 prices)**.

This included high level estimates for terminal and trackworks, signalling, highway, project management, design, allowances for other relevant costs (e.g. Network Rail) and contingency.

E.6 Demand Forecast

Deriving demand for the Bescot Yard site was two fold; identifying the potential market within the catchment area and predicted volumes lifted.

The potential market for rail freight was derived by an assessment of relevant business sectors that potentially would be attracted to consider transporting their goods from road to rail within the intermodal market. Predicted volumes lifted were calculated and converted into industry standard values - Twenty Foot Equivalent Units (TEU's).

Volumes lifted that captured a proportion of the potential market were predicted on the basis of an operating scenario that considered the minimum turnover for the IRFT site at Bescot (three trains per day - tpd). A high level assessment of the rail network capacity established the feasibility of operating this level of service to and from Bescot given current capacity levels (currently @ circa 60% Capacity Utilisation Index).

Potential Market for Rail Freight (10 mile catchment area)	Bescot Yard 3tpd
Annual Volumes Lifted / TEUs (Millions)	Forecast Annual Volumes Lifted / TEUs (Millions) (% of potential market)
2.2 / 0.27	0.386 / 0.047 (17%)

The forecast represents predicted market capture of **17%** of the potential market demand in the Black Country area corresponding to predicted **130 daily HGV movements to and from the site**. Comparable analysis to existing and more established IRFT facility volumes (where data was made available) highlighted the forecast was considered robust and of the anticipated magnitude for a start up facility.

A further test was also conducted to reflect an additional train per day utilising a reinstated Walsall – Stourbridge freight line, particularly if the market appetite for additional services is required including the investment being made at Avonmouth port to increase “south west – north east” axis movements.

The train operational analysis demonstrated this operating scenario was feasible taking account of the latest freight line business case baseline (2tpd) and potential

Metro proposal of shared use and forecast an additional 130,000 tonnes / 16000 TEUs per annum.

E.7 Outline Business Case

A Value for Money assessment was conducted to determine the likely investment return in respect of transferring freight movements from road to rail.

	Bescot Yard IRFT (£m)
Present Value of Cost	105.4
Present Value of Benefit	183.5
Net Present Value	78.1
Benefit to Cost Ratio	1.74

2010 values in 2010 prices

This demonstrated **medium Value for Money** as defined under current DfT criteria. Note this does not include the wider economic benefits denoted above which will increase the benefit further.

A number of alternative scenario and sensitivity tests, including London Gateway “effect” on the industry, were also conducted. These tests demonstrated the significant impact of the background growth forecast within the intermodal sector on the results.

The proposed scheme aligns with current planning policy in principle subject to localised impacts being addressed – namely highway access and impact on neighbouring communities.

Also there were no significant environmental constraints within the site and whilst the River Tame and other sensitive designated areas are located in the vicinity of Bescot Yard, it is considered that through sensitive engineering design any impact will be mitigated to strengthen deliverability of the scheme.

E.8 Conclusion

In light of the assessment results showing a positive case, including economic benefits to the local and wider economy coupled with District consensus in principle for the scheme in the West Midlands, it is recommended the IRFT proposal is given further consideration and taken forward to more detailed investigation at Bescot Yard.

This can support future discussions and strengthen the case for IRFT investment given the nature of the intermodal market and issues surrounding existing IRFT utilisation in the West Midlands.

1 Introduction

1.1 Overview

A high level assessment of a new Intermodal Rail Freight Terminal (IRFT) located in the Black Country has been conducted for Centro to determine the likely benefits arising from such investment in the West Midlands within the intermodal rail market.

The Black Country Gateway assessment provided an estimation of the indicative employment generation and volumes lifted at the new IRFT, including the wider impacts such as indirect job creation and the benefits of transferring freight from road to rail. This supported the development of an outline business case in providing an indicative view of the likely value for money performance that the investment would bring.

The assessment also considered the role that the reinstated Walsall – Stourbridge freight line could provide in respect of providing additional demand to the new IRFT and the agglomerated employment impact of both scheme investments.

1.2 Background

1.2.1 Rail Freight in West Midlands

Rail freight in the West Midlands is acknowledged by Centro as having a vital role to play towards contributing to the economic competitiveness of the region but also garnering reduced congestion, carbon and enhancing access to business markets.

The West Midlands Regional Logistics Study Update¹ made the case for the region requiring between 4 to 6 rail freight terminals through new or expanded IRFTs to meet project intermodal freight growth.

Against this backdrop, Centro has prepared a Regional Freight Strategy for the Metropolitan Area². As part of strategy development, this analysis indicated that the current network of existing IRFT facilities provides a wide catchment area covering many businesses within the conurbation; however what this clearly demonstrated was that spatial provision inadequately served the Black Country where a strategic gap currently exists.

Whilst the Logistics study highlighted that additional capacity could be provided through expansion of existing IRFT as an option, Centro require an assessment to

¹ West Midlands Regional Logistics Study Update, A Technical Report prepared for the West Midlands Employment Land Advisory Group, MDS Transmodal Ltd / Savills, 2009

² West Midlands Freight Strategy, Supporting Freight – Strengthening our Economy, Cutting Carbon, Vision and Key Issues Consultation, December 2011 – January 2012

understand if a new facility could be suitably located in an accessible location to “plug” this gap by directly serving the Black Country market.

Centro has submitted an application for potential funding for such a scheme in the Black Country to the District authorities through the Local Enterprise Partnership (LEP). Such monies will be targeted to provide the necessary highway infrastructure to unlock the IRFT potential of the site, whilst the site itself will be funded by the rail freight industry. However the evidence base requires strengthening to ensure that any monies made available are best targeted in delivering value for money.

Given the nature of an IRFT function the focus of the assessment solely related to the intermodal containerised market whilst the specific function adhered to DfT guidance³ as an “IRFI only” facility.

1.2.2 Black Country Study Area

The Black Country area was used as the geographical boundary for our site search assessment to identify a suitable location for a new IRFT facility.

The Black Country does not have any formal boundary designation but is considered as an area north and south of Birmingham and south and east of Wolverhampton.

For the purposes of the Stage 1 study, the Black Country area was defined as the Metropolitan Boroughs of Sandwell, Walsall, Dudley and Wolverhampton.

Figure 1.1 overleaf presents the Black Country study area boundary for this assessment.

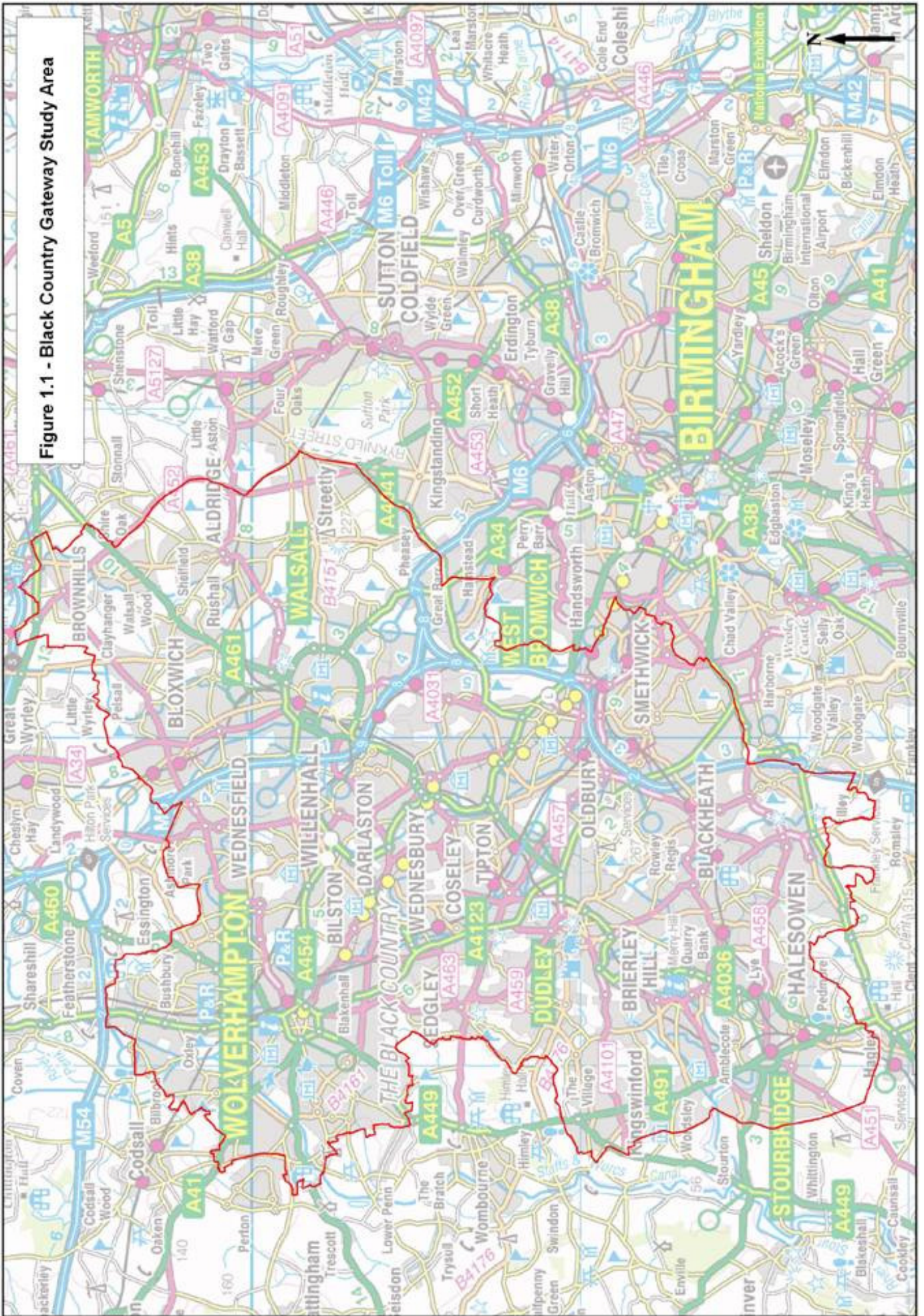
1.3 Report Structure

Following this introductory, the report is structured as:

- **Section 2 - Site Suitability Analysis:** sets out our approach and analysis to determine the preferred IRFT site location
- **Section 3 - Preferred Site Assessment:** provides the capital costs, demand forecast and outline business case for the preferred site. Includes commentary on the aspirations of a West Midlands Spine freight route.
- **Section 4 - Summary and Conclusions:** highlighting the key findings of our assessment.

³ Strategic Rail Freight Interchange Policy Guidance, November 2011, Page 14 (Para 5.1)

Figure 1.1 - Black Country Gateway Study Area



2 Site Suitability Analysis

2.1 Overview

This section presents the analysis of the site selection approach for a preferred IRFT facility for Black Country Gateway.

Relevant supporting information is provided in the appendices.

2.2 Industry Consultation

A number of relevant industry consultees relevant to intermodal rail were approached to elicit their views on the industry, particularly growth in the intermodal market and sharing information where able to so relating to their own operations in the West Midlands and elsewhere.

The consultation issues and information arising from the industry consultation are summarised below. **Appendix A** provides the individual responses from the industry consultees.

2.2.1 West Midlands Freight Market

Rail Industry Forecasts

A detailed review of the rail industry forecasts was undertaken:

- West Midlands Regional Logistics Study
- Strategic Rail Freight Interchange – Policy Guidance
- Network Rail Route Utilisation Strategy
- Industry intelligence (various sources)

The review showed that in recent years, rail's freight market share has consistently grown and accounts for an 11% share of the UK surface freight market⁴.

The review also highlighted that rail freight volumes to the West Midlands has been bucking the trend in past years achieving marginally increase in market share (for example, 0.12% increase in sector to the region given 5.65% reduction in imports from outside EU between 2007 and 2008) and accords with recent industry press stating the intermodal market by rail has been typically growing at 7%.

⁴ Network Rail Route Utilisation Strategy (NR 2010 Paper – Value and Importance of Rail Freight)

Against this backdrop, it is not unexpected to understand that industry forecasts predict growth going forward. Current forecasts for intermodal rail freight growth over the next 15 years range between 1.5%⁵ per annum (nationally) and 6.14%⁶ per annum (West Midlands specific). Within this range, MDS Transmodal⁷ forecast growth in the intermodal market, as this will be the expected rail freight growth in the UK over the next 20 years, at 5% year on year to 2030.

It is concluded that the rail trend in growth is going against the general growth trend (i.e. it is getting bigger despite a “flatlining” economy), and therefore appears to be evidence of a structural change in freight haulage – intermodal is the big growth area, and generally the correlation appears to be with investment in gauge clearance, train length increases (particularly where capacity constraints exist reducing available paths) and the increase in fuel costs noting rail also has to absorb this latter element. This emphasises the increasing role of improved infrastructure to make rail more competitive in the market place and not necessarily due to the provision of new terminal capacity.

Appendix B provides detailed review of growth forecasts for number of relevant sources.

Current Rail Market Share – Port Distribution

The review highlighted current intermodal market share of rail freight movements to the main rail connected deep sea UK ports. A number of these ports are investing in their intermodal capabilities and currently the market data highlights the dominance of the south and west ports of Southampton and Felixstowe respectively.

Given the geographical spread of the ports around the UK, the listed ports have been defined as the representative main intermodal rail terminal to reflect all UK intermodal terminals (excluding Scotland) that potentially could have rail freight movements to and from the Black Country Gateway terminal.

Table 2.1 overleaf presents the current distributions based on industry sources and, where unavailable, based on linear share of the remaining market.

⁵ Strategic Rail Freight Interchange – Policy Guidance November 2011

⁶ West Midlands Regional Logistics Study, 2008-2026 rail freight forecast

⁷ Freight Modal Choice Study: Phase 1 Conclusions – Drawing Together Evidence Final Report, Nov 2010, AECOM/ITS for DfT MDS Transmodal. (2009b). *Rail Freight Forecasts to 2030*.

Table 2.1 Key Intermodal Rail Terminals – Current Rail Freight Market Share

Intermodal Terminal Cluster Zone	Representative UK rail connected Port	Current Market Share – Rail Freight Sector	Source
South	Southampton	36%	Port of Southampton ABP / Better Rail Campaign Evidence to Parliament (2012)
Haven Ports	Felixstowe	27%	Port of Felixstowe website / Freight on Rail (March 2012)
London	Tilbury	7.4%	Linear assumption of remaining share
	Thamesport	7.4%	Linear assumption of remaining share
	Purfleet	7.4%	Linear assumption of remaining share
North East	Teesport	7.4%	Linear assumption of remaining share
North West	Seaforth	7.4%	Linear assumption of remaining share

Industry Consultation

A number of rail freight operators and rail freight terminals were consulted by telephone and email in September 2012 to derive market information to help inform our assessment of the market direction of intermodal rail freight in the West Midlands.

The consultation also sought to elicit views on current operations, including typical catchment area, and planned proposals for the future development of rail freight in the region where there was no commercial conflict in making this information available to Halcrow.

Rail freight terminal operators that provided a response were:

- **DB Schenker**
- **Freightliner**
- **GB Railfreight**
- **Colas Rail**

The operator, DRS, was contacted but no response was received.

Rail freight terminal operators consulted were:

- **PD Ports**
- **Potter Group**
- **John G Russell**
- **The Malcolm Group**
- **ABP**

Feedback from the consultation provided the position that not all rail freight service users view the Midlands as an area for future rail growth, a position which poses an interesting perspective to the formal industry forecasts suggested above to challenge key players and stakeholders in facilitating rail freight to capture such growth in the West Midlands. Many take the view that the Midlands' dominance as a freight hub is historically road driven, and that as more traffic is trunked by rail then new hubs will emerge.

This view concludes that any new rail business in the Midlands would need to be modal shift of existing road traffic rather than business generated by new distribution needs. This also means that competition for a new site will come from sites well outside the region, as well as within it. Note the parallels between Potter and PD Ports concentrating on Northern/North-West markets, and these firms' location in the east of the country, and with Russell's an interest in the East Midlands. Allied with the view shared by more than one that capacity is not yet at a premium in the West Midlands, with figures quoted around the 70% mark, suggests that rail freight firms may be wanting to concentrate in other geographical areas of the UK.

There is a further issue driving this view of future demand for freight hubs and that is the potential impact of London Gateway, the port currently being developed on the former Shellhaven site in Essex and due to open in Q4 2013. This site is designed to serve the London and South-East market by providing dockside warehousing for the unstuffing of containers and onward distribution. Within the immediate region this is most likely to be done by road and would not be a market for rail to tap into. However, any business the site does operate by rail would be more likely to be oriented towards the final sale end of the market – here rail would need to have the kind of offer it provides for the likes of Tesco and Asda, providing trunk haulage for the “last step” or “last step but one” to the store. At the moment the rail offer to and from ports is generally further back the chain than this, and the Midlands serves as a major centre for redirecting traffic onwards in the chain. With this potentially already done at the port, rail traffic is likely to deliver directly to market, and freight operators may seek to deliver beyond existing terminals in order to be closer to the end user.

The consultation also established that smaller players would prefer an independently owned and managed site. Large and established players, such as DB Schenker and Freightliner, have terminal and service networks that allow them to build in logistical advantage. While open access rules do apply, smaller competitors are understandably reluctant to make themselves dependent on another party that is capable of taking its business away. Similar concerns exist with terminal operators, where some companies can be perceived as having significant market power or being culturally oriented towards existing in-house business. Therefore any new terminal should ideally be operated by a suitably flexible and open organization – however the market will dictate the final outcome on this basis and whoever operates the site,

local stakeholders will hope to achieve similar outcomes in respect of wider benefits (i.e. local employment generation, mode shift from road to rail).

In respect of the Black Country, it is understood operators such as DB Schenker⁸ are keen on the intermodal market particularly to access European markets and their current strategy does aim to develop regional centres across the UK with Bescot Yard as a potential candidate for IRFT investment given their current ownership of this Yard.

The Case for New Capacity – West Midlands

It was noted from comments that spare capacity at existing terminal sites is running around 30% (as stated above). Therefore if the West Midlands capacity is at this level (70% utilisation) then any new terminals would provide more choice (regarded by some in the industry as good in itself). However this choice would also put downward pressure on handling and storage rates, potentially reducing the viability of the new site and making things “harder” for existing terminal sites as well. Unless and until there is clear growth pressure on existing capacity (and the view is that this would need to be above and beyond 30% more traffic than presently running as indicated above) the case for additional capacity may be unlikely such as that proposed in the Black Country in demand side terms. The view from the market place suggests that a new site will not of itself generate that additional demand until demand rises to such levels and that potentially a case may exist but more aligned to serving the East Midlands rather than North West Midlands market.

However there are additional operating variables that need to be considered which includes those emanating from the desire of some freight operators to expand their position in different markets – such as intermodal – hence the interest from DB Schenker at Bescot and Washwood Heath - to achieve higher market share of the status quo through competitive business strategies. The case is further strengthened given the capacity constraints on the rail network to increase turnover at existing sites, particularly at Lawley Street, DIRFT and Birch Coppice (see Section 3.2) in order to accommodate spare capacity and that the North West Midlands market may demand better access to an IRFT for their needs.

Critical Operating Factors

Feedback from the industry stated that train length and gauge clearance on rail routes, including electrification of mainline routes, are critical factors with the availability of warehousing a significant factor, although no specific preference was stated for whether the warehousing should be on site or merely easily accessible.

⁸ Centro (Neil Ross) meeting with DB Schenker, Head of Property (Simon Ives), 12th September 2012

On this latter point it is worth noting that the suitability of a site for warehousing provision should be considered. This could be either the availability and accessibility of space on site, or the availability of adjacent or nearby development land, or indeed existing warehousing that could be served. Most of the potential sites initially considered are relatively small, or have poor layouts or access. For example, DB Schenker's interest in Bescot has plenty of potential area, but does not appear to be a suitable shape for warehousing. Adjacent land includes undeveloped areas, such as the 10 hectare brownfield site to the west of the Yard, or nearly undeveloped land but constitutes the only major greenfield area locally, and so is assumed to be unsuitable. Furthermore, the development of warehousing usually requires commitment from a major tenant to guarantee viability, and is driven by a logistics requirement – a number of sites at DIRFT are driven by this factor. In contrast a container terminal dedicated to storage and cross-docking to road would be able to run more than one key account, and also serve nearby warehousing. This is therefore likely to be a better option in terms of commercial flexibility for any new Black Country terminal.

2.2.2 Typical Catchment Area

Terminal operators provided a general view on the commercial business catchment area due to the commercial sensitivities of providing more detailed information.

Across the majority of responses received, it was the firm position that the catchment extends approximately 30 miles road distance from the terminal site. In relation to the West Midlands, the catchment for terminals in the majority tends to be to the **north** and **west** of the site to reflect the lack of appetite to “double back” to the terminal from the business origin – particularly due to Southampton and Felixstowe Ports being the dominant markets for sea freight containership to distribute commodities by rail in the UK (pre-London Gateway). However it was noted that, in the main, a high concentration of businesses using the rail freight facility were located within 10 miles of the wider 30 miles catchment area.

Figures 2.1 and 2.2 overleaf reflect these catchment areas in two scenarios – 30 mile catchment and 10 mile catchment areas (straight line distance) – and denote the main deep sea ports that each terminal serve including direct services that access the European markets via the Channel Tunnel.

Figure 2.1 - West Midlands: Existing Intermodal Rail Freight Terminals - 30 Mile Catchment Area

Names in italics denote main deep sea port served

Telford Rail Park

Teeside, Humber, South Wales, Central Scotland, Felixstowe, Southampton, Tilbury, Europe (CTunnel)

Birch Coppice

Felixstowe, Southampton, Tilbury, Thamesport

Hams Hall

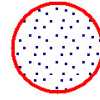
Felixstowe, Southampton, Ipswich, Central Scotland, Europe (CTunnel)

Lawley Street

Felixstowe, Southampton, Tilbury, Thamesport

Daventry

Felixstowe, Southampton, Tilbury, Grain, Europe (CTunnel)



30 mile radius around existing rail terminal



North and West Catchment Area



Black Country Gateway Study Area

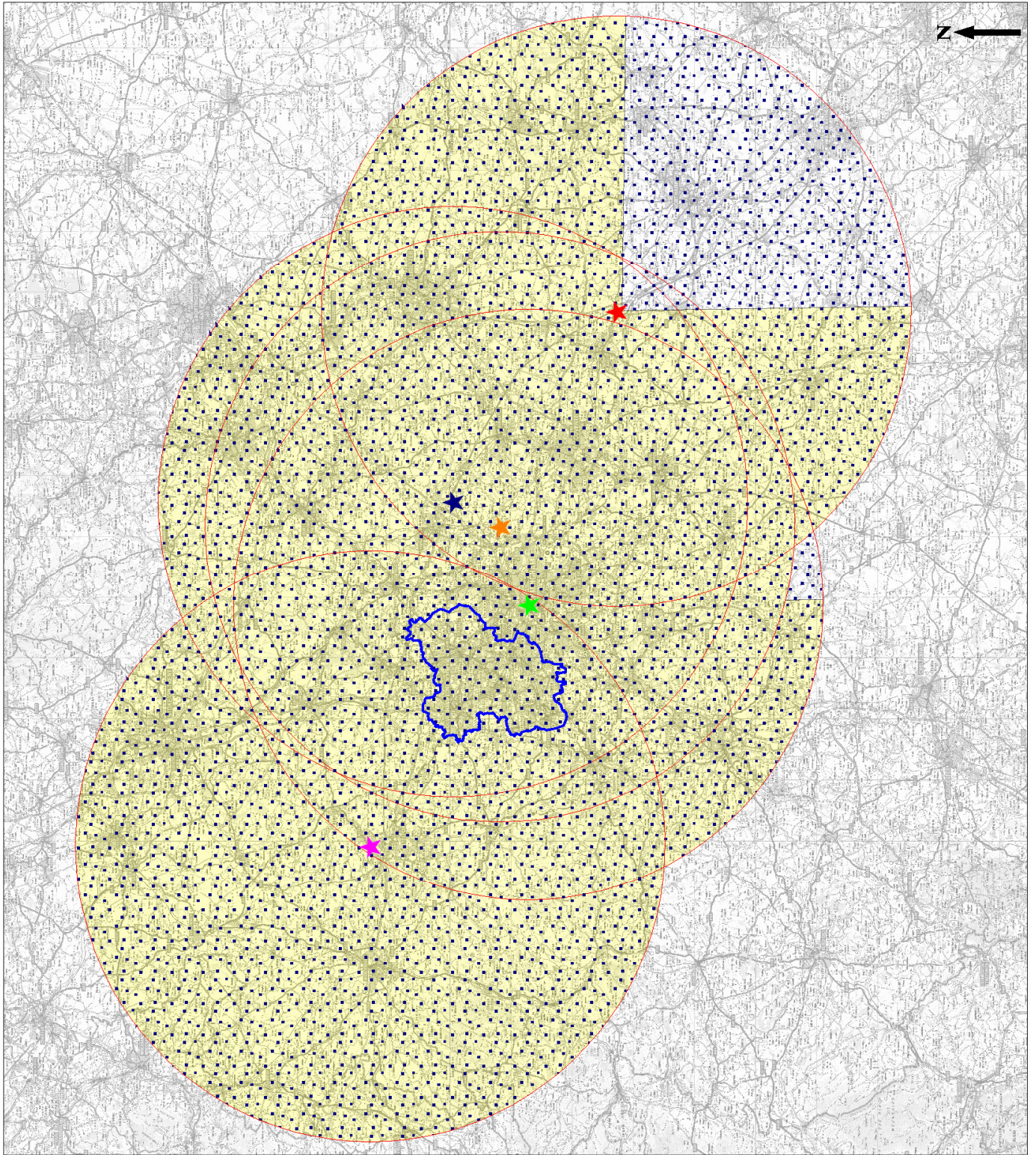


Figure 2.2 - West Midlands: Existing Intermodal Rail Freight Terminals - 10 Mile Catchment Area

Names in italics denote main deep sea port served

Telford Rail Park

Teeside, Humber, South Wales, Central Scotland, Felixstowe, Southampton, Tilbury, Europe (CTunnel)

Birch Coppice

Felixstowe, Southampton, Tilbury, Thamesport

Hams Hall

Felixstowe, Southampton, Ipswich, Central Scotland, Europe (CTunnel)

Lawley Street

Felixstowe, Southampton, Tilbury, Thamesport

Daventry

Felixstowe, Southampton, Tilbury, Grain, Europe (CTunnel)



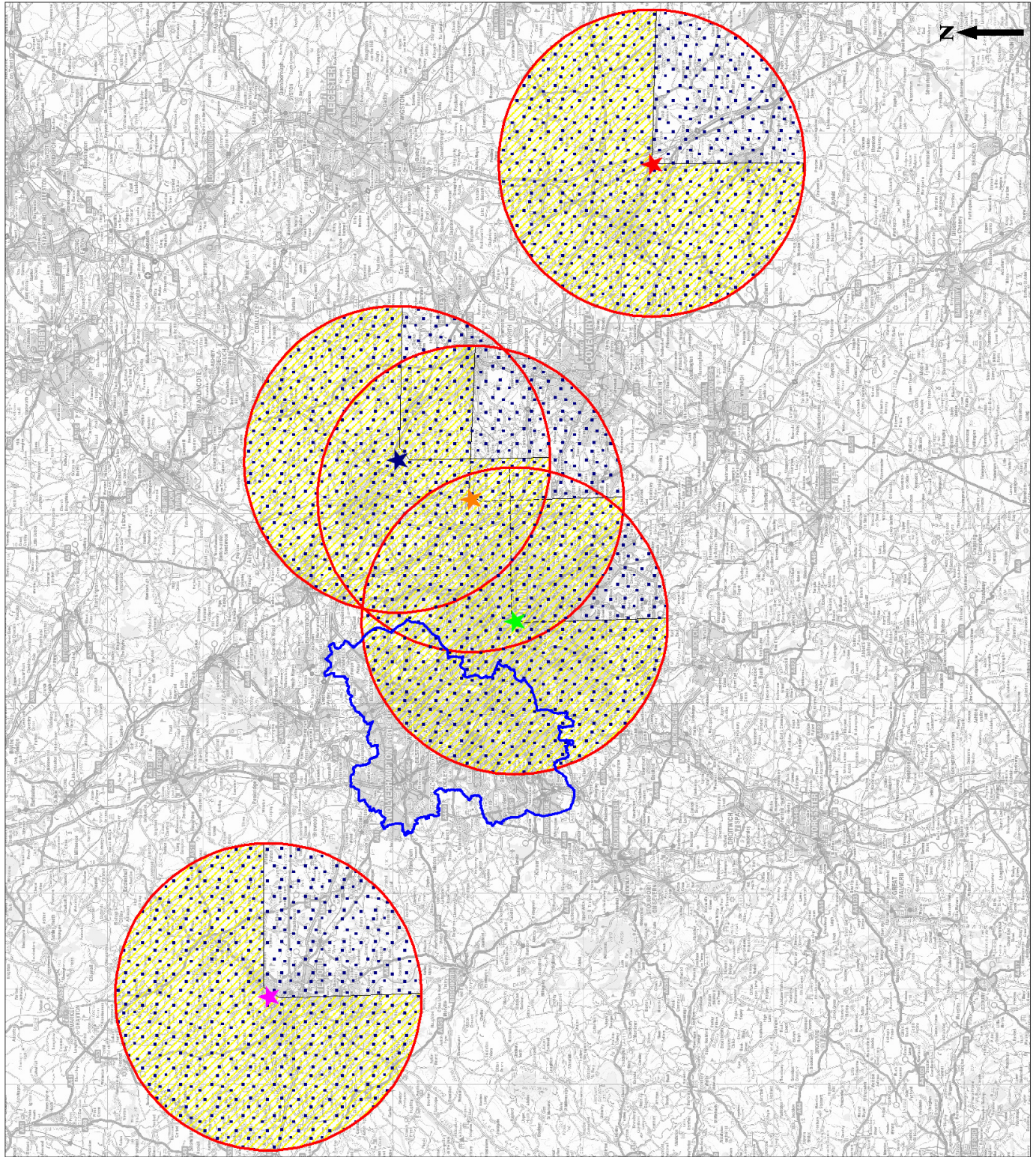
10 mile radius around existing rail terminal



North and West Catchment Area



Black Country Gateway Study Area



The figures show that the 30 mile catchment areas clearly covers the conurbation and a number of overlaps occur across sites – including the Black Country area. This demonstrates that, at the strategic level, most (if not all) businesses that are or would have the appetite to use rail freight are within catchment of one or more terminals.

In relation to the 10 mile catchment, this provides the interesting view that in respect of supply side analysis, this reflects in part similar analysis conducted by Centro to identify the Black Country as being located outside the catchment of existing terminal facilities – strengthening the case for investment in this area. This analysis shows that approximately 50% of the study area is mainly covered only by Lawley Street terminal, however issues of congestion on the highway network within and around the centre of Birmingham to access Lawley Street from the Black Country, give rise to commercial concerns of unreliability and higher operating costs for HGV movements of relevant businesses.

However the industry view above suggests that some businesses may have the propensity to travel further if the operating conditions at relevant rail freight terminal are commercially attractive and, given spare capacity currently seems to be available to potentially accommodate further demand, this may have bearing on individual business decisions.

2.2.3 Informing the Analysis

The review of industry growth forecasts and industry consultation suggests there is a potential case for exploring new intermodal terminal capacity in the Black Country area.

Existing terminals are not considered to be operating at capacity – thereby allowing room for growth and potentially weakening any case for new capacity. However there are two main reasons for exploring the case for new capacity in the Black Country; 1) whether existing spare capacity in the West Midlands terminals can be adequately utilised to directly serve the North West Midlands market remains to be proven, and 2) the intention of some freight operator interest in entering the intermodal market as part of their strategic business strategy. Thereby exploring the feasibility of providing new IRFT capacity is warranted at this current time.

The market intelligence gleaned was used to inform our analytical assumptions for the high level demand analysis to assess new IRFT facility in Black Country. These were:

- **Catchment area:** noted maximum 30 miles on **north and south** basis (avoiding double back due to concentration of movements to southern ports). However given the particularly detailed feedback from ABP, a conservation assumption of **10 mile catchment area** was applied.
- **Intermodal market growth in West Midlands:** to align with MDS Transmodal forecast – **5% growth per annum to 2030** - to reflect reduced forecast than that proposed and referenced under West Midlands Logistics Study to provide a more conservative assumption.
- **Rail freight distribution patterns:** to rail connected UK ports from preferred site.

Due to the significant but uncertain impact that London Gateway deep sea port terminal will have on rail freight distribution patterns in the future, this proposed terminal has been excluded from the central appraisal analysis but included as a sensitivity test with displaced market projection based on working assumption.

However due to the relatively less significant investment to London Gateway, a linear rail freight market share assumption (6%) has been applied to the Avonmouth port (Bristol) to reflect the proposed investment of a deep sea container terminal at this location in the future.

2.3 Site Selection Assessment

2.3.1 Preliminary Sift

Existing rail corridors in the Black Country were examined for additional available land with good access to the local and national road network. These included the following lines:

- Walsall – Birmingham New Street
- Wolverhampton – Birmingham New Street
- Wolverhampton – Walsall

Given the proposal to reinstate the Walsall – Stourbridge freight line this corridor was also included within the assessment to reflect potential sites that could be unlocked for IRFT development.

A desktop site search was conducted to identify a number of potential sites. Core criteria was used for the sifting exercise:

- **Land size** (between 10 or above hectares⁹ but included smaller sites for complete land search)
- **Land shape** (favourable configuration for rail freight terminal operations)
- **Accessibility to rail line** (including access to alignment of Walsall – Stourbridge freight line)
- **Accessibility to highway network**
- **Adjacent land use** (identifying land use nearby with similar operations – i.e., industrial)
- **Initial issues** (e.g. environmental sensitivities)

⁹ Strategic Rail Freight Interchange Policy Guidance, November 2011, Page 14 (Para 5.1)

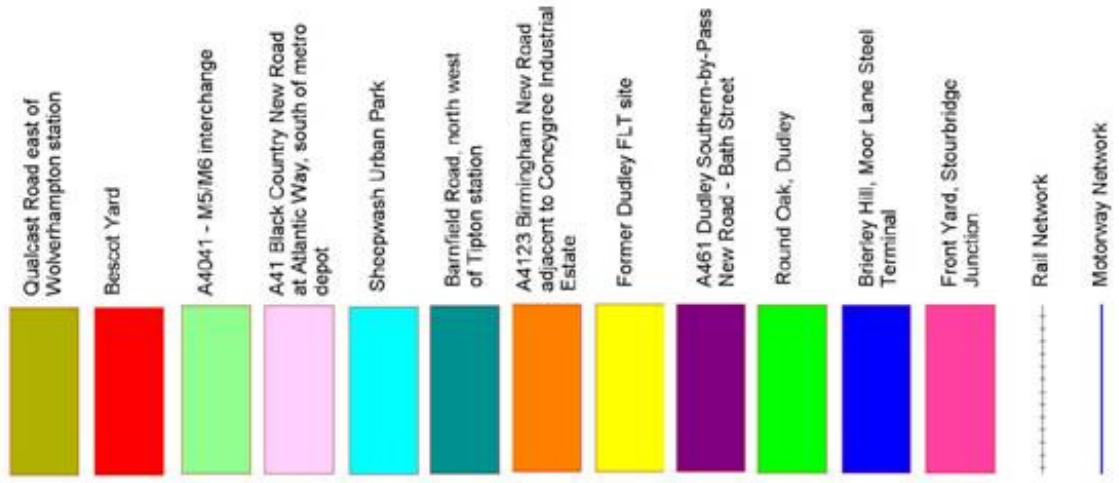
The desktop exercise included the use of Google Earth software, GIS Mapinfo and local knowledge of the area to identify such sites.

Centro were also consulted to understand if any additional sites over and above those previously identified should be considered in the assessment approach (Bescot Yard and Dudley (former Freightliner terminal) sites).

A total of 12 sites were identified that provided a range of land size, layouts and location following the application of core criteria. The location of each preliminary site is shown overleaf in Figure 2.3.

The results of the preliminary sifting exercise are presented in Table 2.2 overleaf.

**Figure 2.3 - Site Selection:
Preliminary Sift Locations**



Note the Walsall - Stourbridge freight line is shown on the map for illustrative purposes

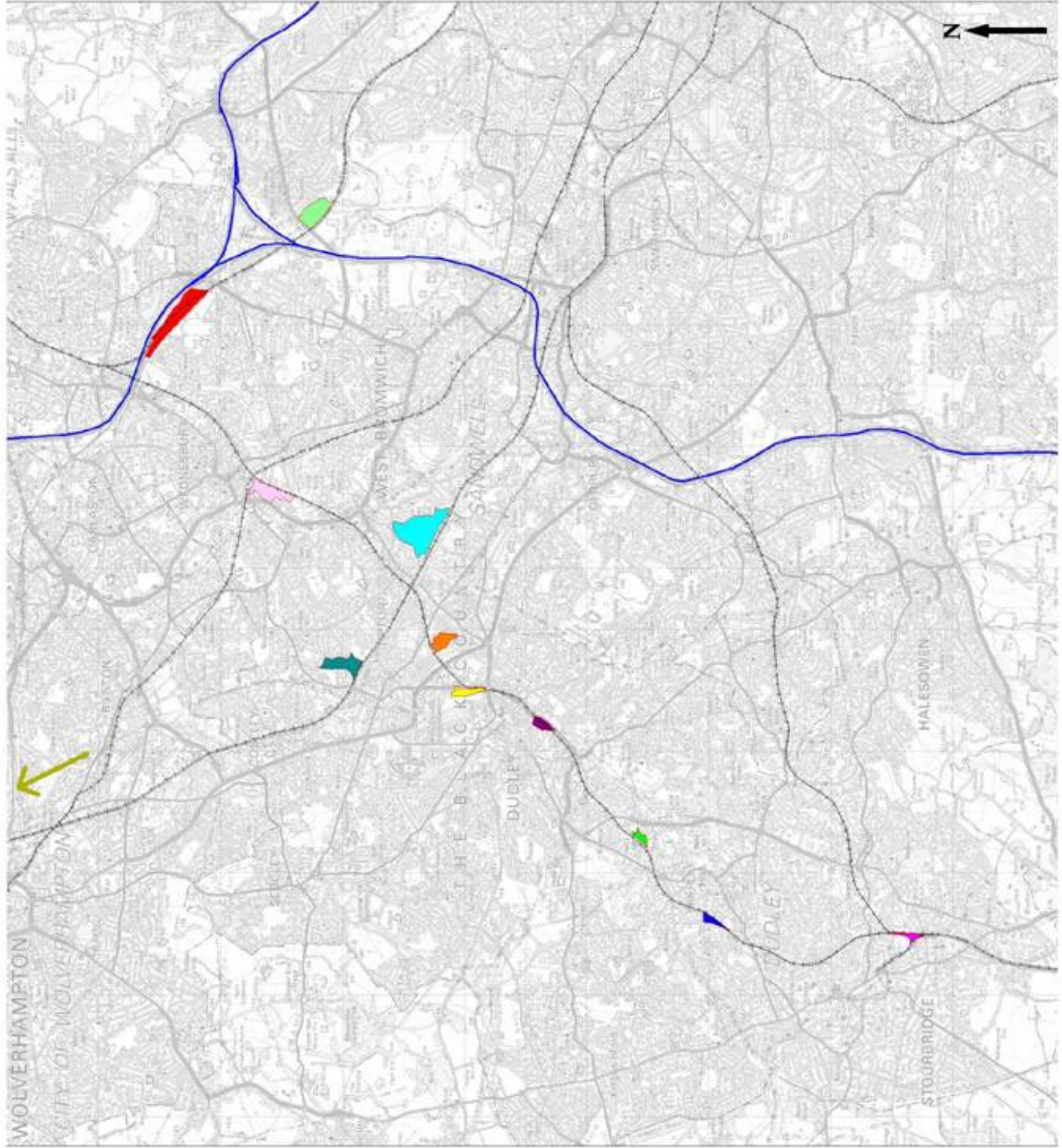


Table 2.2 Preliminary Site Selection – Sifting Exercise

Site Name and Description		Current Rail Access	Perceived Highway Access	Adjacent Land Use	Approx Land Size	Land Configuration	Initial Issues / comments
Walsall - Birmingham New Street Corridor							
Bescot Yard	Bordered by the M6 to north and east between junctions 8 (for M5) and 9 (for A461).	Direct access from Walsall - Birmingham New Street line.	Excellent – assuming access via new link road to A461. 0.5 miles from M6 Jn9.	Residential / Industrial / Greenfield	Approx 25ha. Large - up to 1300m at longest point.	Favourable - parallel to mainline.	Existing use favours IRFT investment Scope for expansion given size and accommodating longer trains Interest from rail freight industry to develop as intermodal container site (DB Schenker) Provides electrification Watercourses running adjacent to site.
A4041 - M5/M6 interchange	Land between Tame Bridge and Hampstead stations, east of A4041 Newton Rd and south of M5/M6 Jn.	Direct access from Walsall - Birmingham New Street line.	Excellent - site adjacent to A4041 dual carriageway. 2 miles to M6 J7 via A4041 and A34.	Residential/ Agricultural/ Leisure.	Approx 14ha. Maximum length of 550m at longest point.	Favourable - parallel to mainline.	Watercourse borders site. Electricity pylons on site.
Wolverhampton - Birmingham New Street Corridor							
Barnfield Road, north west of Tipton station	End of Barnfield Rd, to the north of the railway near Tipton station. To the east of A4037 Bloomfield Rd.	Direct access from Wolverhampton - Birmingham New Street line.	Good - access to A4037. 4.2 miles to M5 Jn2 via A4123.	Industrial/residential.	Approx 14ha. Maximum length of 650m at longest point.	Perpendicular to rail alignment but with sufficient boundary length to allow access.	Adjacent to well utilised rail corridor.
Sheepwash Urban Park	Land to the east of Dudley Port station, north of rail line and south of B4166 Tame Road.	Direct access from Wolverhampton - Birmingham New Street line.	Poor - access to A461 via residential road. 3.7 miles to M5 Jn2 via A4123.	Parkland/residential.	Approx 25ha. Large - up to 1000m at longest point.	Favourable - parallel to mainline.	Adjacent to well utilised rail corridor. Site is currently a local nature reserve.

Site Name and Description		Current Rail Access	Perceived Highway Access	Adjacent Land Use	Approx Land Size	Land Configuration	Initial Issues / comments
Wolverhampton - Walsall Corridor							
Qualcast Road east of Wolverhampton station	Land at the end of Qualcast Road (off A454), south of railway and north of river.	Direct access from Wolverhampton - Walsall line.	Good - access to A454. 4.5 miles to M6 Jn10 via A454.	Residential/industrial.	Approx 2ha. Limited - maximum potential length of 200m.	Inconvenient shape for efficient use.	Watercourse running adjacent to site. Does not meet formal size thresholds for IRFT only facilities.
Stourbridge - Walsall Corridor							
Front Yard, Stourbridge Junction	Between Stourbridge Jn station and Stourbridge North Jn.	Direct access from Kidderminster - Birmingham Snow Hill line.	Limited - road access would be via the B4186, 7 miles to M5 Jn3 via the A491 and A456.	Primarily residential with station car park and playing fields alongside.	Approx 2ha. Limited - a maximum length of 300m at longest point.	Favourable - parallel to mainline.	Does not meet formal size thresholds for IRFT only facilities.
Brierley Hill, Moor Lane Steel Terminal	Between Kingswinford Jn South and Round Oak South. South of Moor Street, east of river.	Direct access from line between Stourbridge Jn and Round Oak.	Limited - road access via Moor Street to north of site, 7 miles to M5 Jn2 via A461 and A4123.	Mixed industrial/residential, although primarily residential along road routes.	Approx 4ha. Maximum length of 500m at longest point.	Favourable - parallel to mainline.	Does not meet formal size thresholds for IRFT only facilities.
Round Oak, Dudley	End of Canal Street off A461 Stourbridge Rd near Jn with B4180. North of Waterfront Way, west of A4036.	Direct access from re-established Stourbridge - Walsall line.	Good - direct access onto A4036. 5.7 miles to M5 Jn2 via A461 and A4123.	Primarily industrial.	Approx 5ha. Maximum length of 650m at longest point.	Favourable - parallel to mainline.	Land adjacent to watercourse. Does not meet formal size thresholds for IRFT only facilities – however existing operations nearby as steel freight terminal for TATA steel group Located next to current operating section of Walsall – Stourbridge freight line.

Site Name and Description		Current Rail Access	Perceived Highway Access	Adjacent Land Use	Approx Land Size	Land Configuration	Initial Issues / comments
A461 Dudley Southern-By-Pass - New Road - Bath Street	Land to the west of A461 Dudley Southern-By-Pass and east of Bath Street and New Road.	Direct access from re-established Stourbridge - Walsall line.	Excellent - direct access to A461 dual carriageway. 3.6 miles to M5 Jn2 via A4123.	Primarily industrial.	Approx 5ha. Maximum length of 400m at longest point.	Favourable - parallel to mainline.	Does not meet formal size thresholds for IRFT only facilities.
Dudley (Former FLT site)	Land to the west of A4037, north of A459 and east of Dudley zoo.	Direct access from re-established Stourbridge - Walsall line.	Excellent - direct access to A4037 or A459 (both dual carriageways). 3 miles to M5 Jn2 via A4123.	Industrial/commercial to the southern end of site. Residential/leisure to north. (incl. new development build @ Sep 2012)	Approx 13ha. Maximum length of 600m at longest point.	Favourable - parallel to mainline.	Previous history as rail freight terminal. Located next to alignment of Walsall – Stourbridge freight line
A4123 Birmingham New Road adjacent to Coneygree Industrial Estate	Land to the east of A4123 Birmingham New Road, north of Coneygree Road and west of the river.	Alongside Stourbridge - Walsall line although access would be difficult due to short boundary with site.	Excellent - Access at southern end of site to either A461 or A4123. 2.7 miles to M5 Jn via A4123.	Both residential and industrial.	Approx 7ha. Maximum length of 400m at longest point.	Inconvenient - perpendicular to rail alignment.	Does not meet formal size thresholds for IRFT only facilities.
A41 Black Country New Road at Atlantic Way, south of metro depot	Land to east of A41 and south of the Birmingham - Wolverhampton metro line.	Direct access from re-established Stourbridge - Walsall line.	Excellent - direct access onto A41 dual carriageway. 4 miles to M5 Jn1 via A41.	Industrial.	Potentially up to 14ha. Maximum length of 600m at longest point.	Favourable - parallel to mainline.	Watercourse, lake and electricity pylons on site – significant environmental constraints.

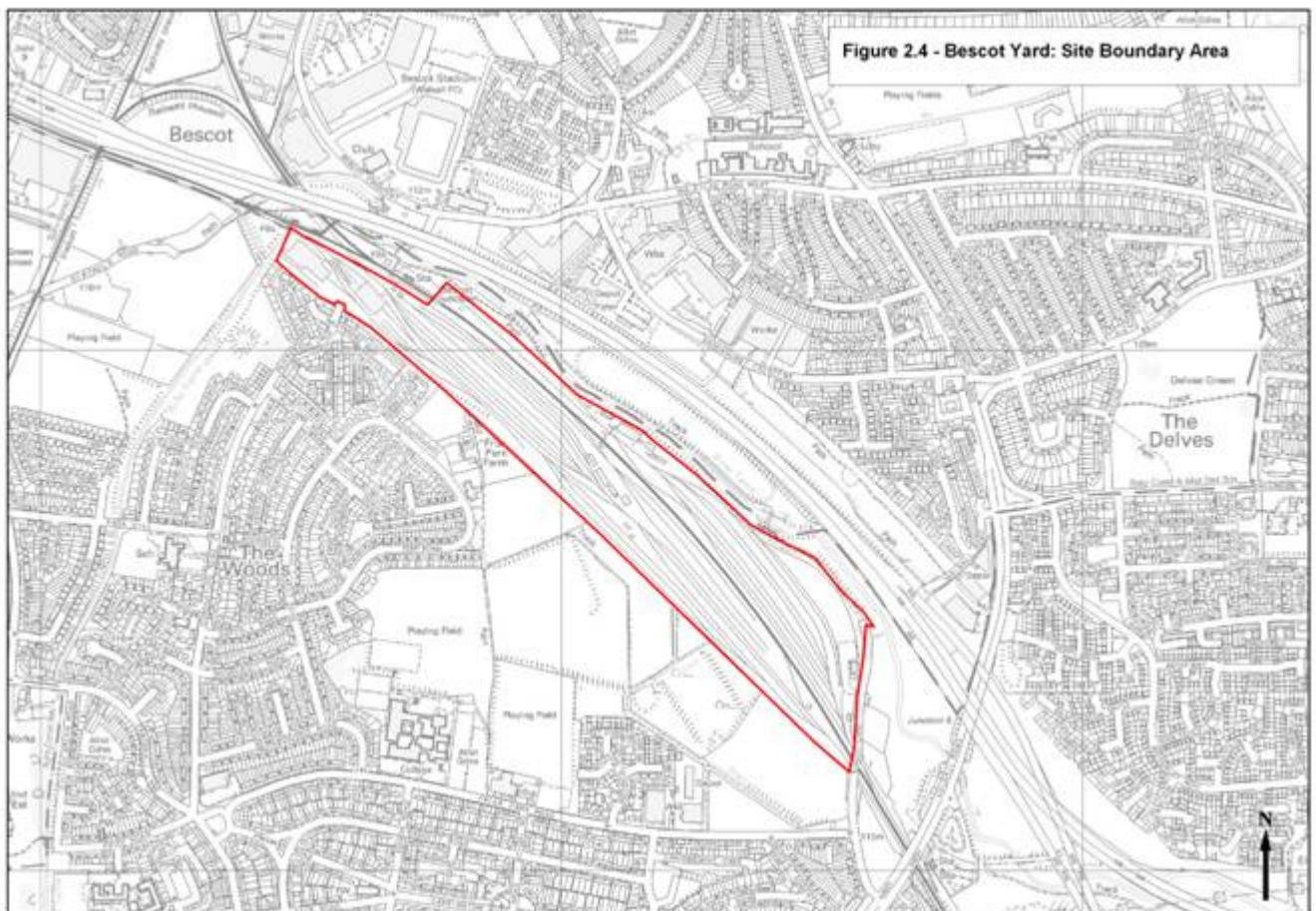
The analysis highlighted the most suitable sites to move forward to shortlisting as:

- Bescot Yard
- Dudley (Former FLT)
- Round Oak

The **Bescot Yard** site is a strong candidate for IRFT investment as it is situated next to the strategic road network, access via M6 Junction 9 nearby, and the mainline rail network. The site is significant in size – approximately 25 hectares containing the Train Maintenance Depot operated by DB Schenker – and provides sufficient train length capacity (1300 metres max) which comfortably provides potential scope for handling 775 metre container freight trains.

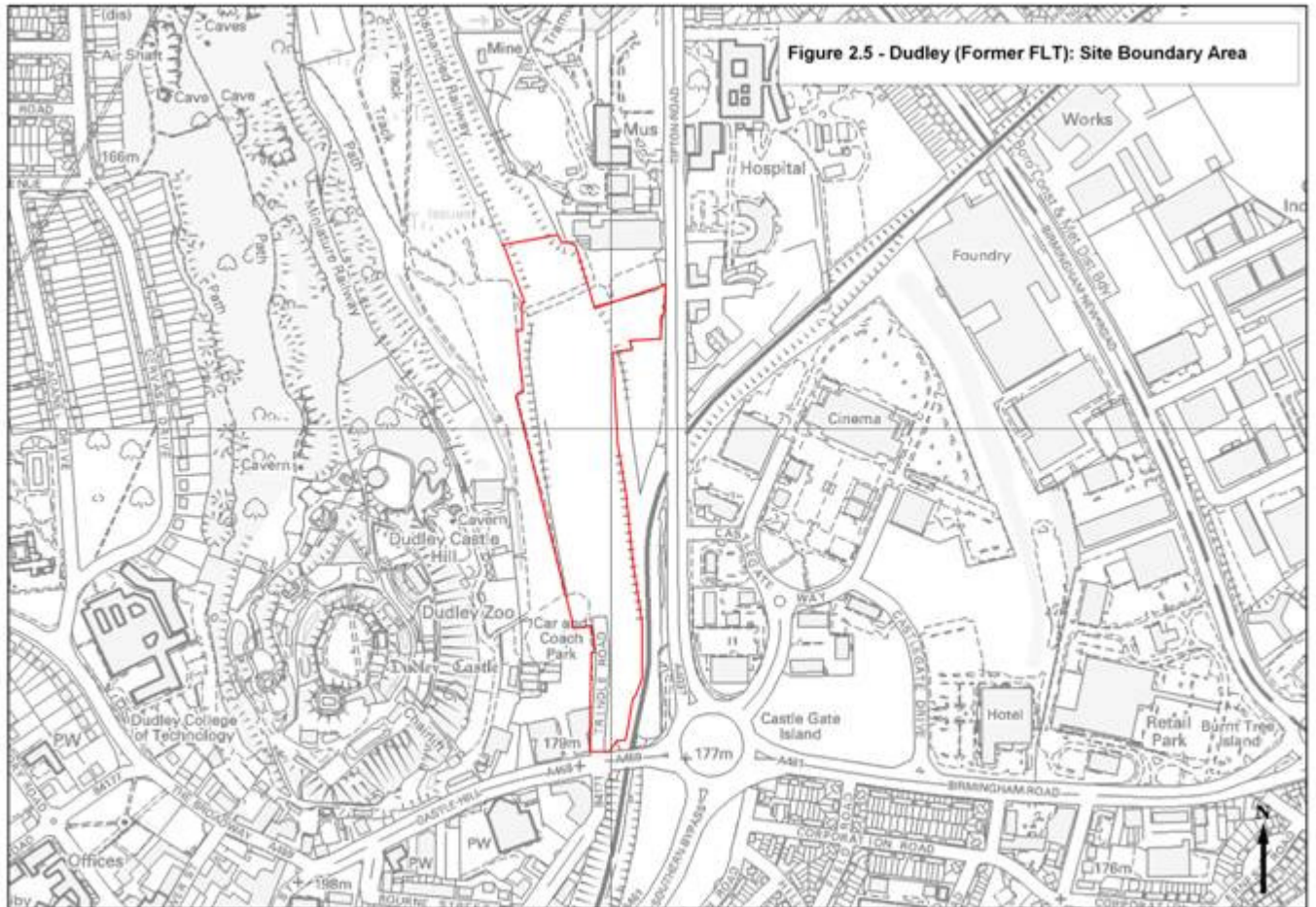
The alignment of the Walsall – Stourbridge freight line also runs closely nearby on a north–south axis and thereby potential access could be made via Bescot Curve if the line was reinstated.

See Figure 2.4 below.



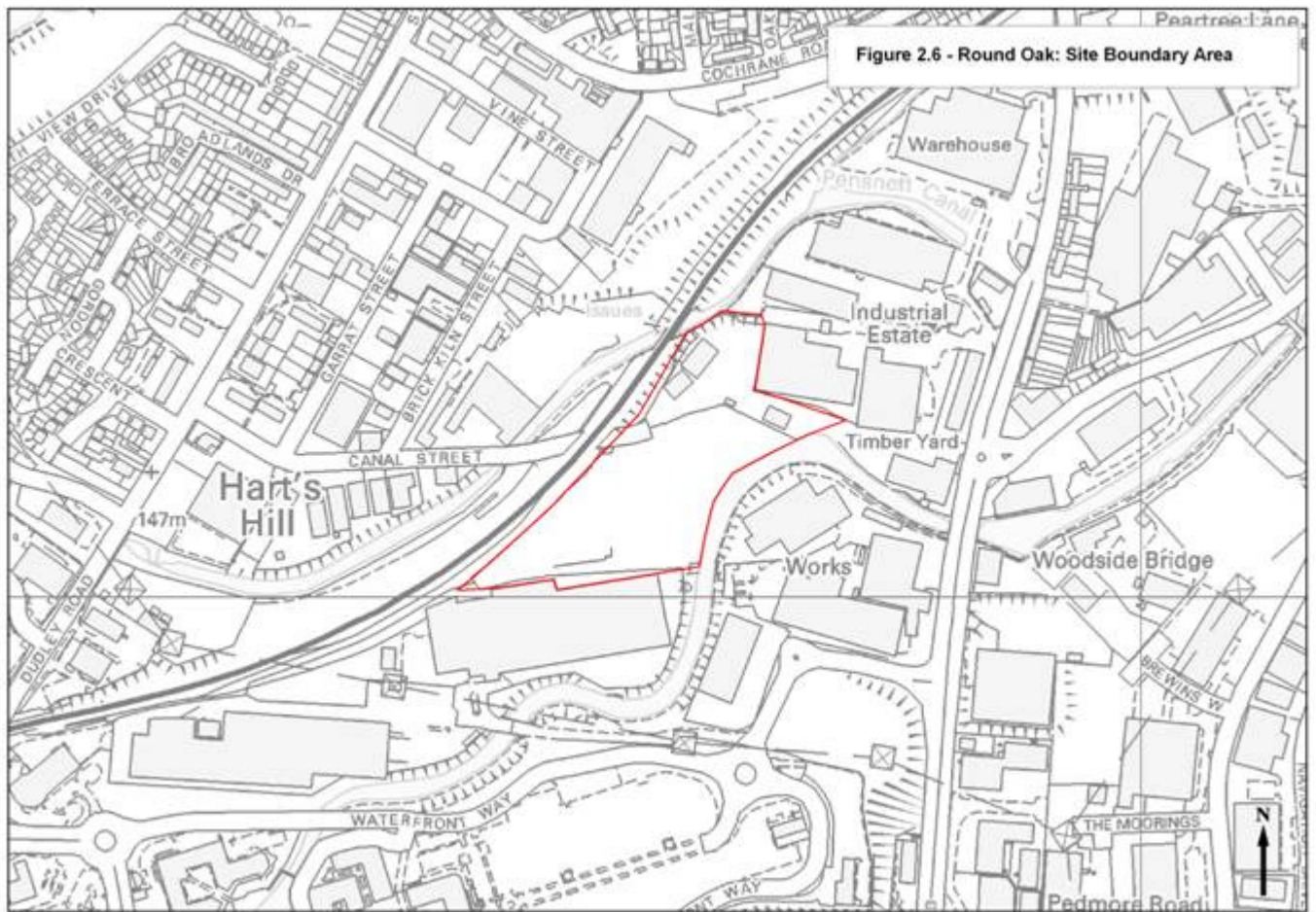
The **Dudley** site was identified on the basis of historical use (former Dudley Freightliner terminal, one of Freightliner's first rail terminals, was closed in 1989) and was served by the former Walsall – Stourbridge freight line. Whilst sufficient in size (13 hectares) the land has been allocated to some development needs however remains a candidate for further assessment.

See Figure 2.5 below.



The **Round Oak** site in Dudley is situated close to the Round Oak Steel Terminal (TATA Steel Group) and adjacent to the Walsall – Stourbridge freight line. The Steel Terminal is an operational railway freight terminal allowing steel to be lifted onto operating services to and from South Wales. The size of site is constrained below what would normally be expected for an IRFT only facility but there was merit in giving this site further consideration given the current nearby freight operations, being adjacent on the former freight line and potential for acquiring further land nearby.

See Figure 2.6 below.



2.4 Preferred Site Selection – Full Evaluation Framework

2.4.1 Site Assessment of Shortlisted Sites

The three shortlisted sites were further examined for suitability against the following selection criteria:

- **Size and layout of site** – as per preliminary sift approach.
- **High quality rail connectivity** – as per preliminary sift approach.
- **Gauge clearance** – the Network Rail RUS¹⁰ was reviewed to understand current loading gauge of the relevant rail line to accommodate rail freight movements.
- **Accessibility to businesses** – the Annual Business Inquiry (ABI) and Business Register and Employment Survey (BRES) available from NOMIS were analysed to understand accessibility to business based on industry view of 10 mile catchment area within Black Country study area. Key business subsectors of manufacturing, distribution, retail and waste were defined as demand generators for rail freight noting some retail activity generates bulk goods (non container). Detailed approach is set out under **Appendix C**.
- **Highway impact assessments** – high level assessment of current local highway network in respect of suitability for HGV use using Google Earth. Also typical vehicle journey times between nearest motorway / trunk road junction and proposed site access identified to understand access to highway network.
- **Site ownership and defined land use** – the land registry web portal was used to identify site ownership of shortlisted sites where information could be made available and land use policy search to identify defined land use.
- **Accessibility to Labour Market:** as per approach above under ‘Accessibility to Businesses’.
- **Local planning issues/policy** – a high level qualitative review was conducted to assess each of the shortlisted sites in relation to planning policy. This also included initial assessment of locating any specific environmental constraints.

Each criteria were scored using a simple metric indicator based on site contribution to provide a high level “score” using high (+3), medium (+2) and low (+1) contribution and ranking the shortlisted sites to identify a preferred site for detailed assessment. The scoring system is shown in Table 2.3 overleaf.


¹⁰ West Midlands and Chilterns Rail Utilisation Strategy, Network Rail, May 2011

Table 2.3 Full Evaluation Scoring Framework

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance Scoring Definition
Size	10 ha or above	Hectares	High: >20 hectare Medium: 15 – 20 hectares Low: <15 hectares
Layout	Parallel to rail line	Site configuration	High: Parallel shape to mainline Medium: Perpendicular shape to mainline Low: Unsuitable shape
	Accommodate 775 train lengths	Distance (metres) of current rail line suitable for holding freight trains within site location	High: >750 metres Medium: 500 – 750 metres Low: <500 metres
Rail Connectivity	Connectivity to mainline	Vicinity of rail line to site location	High: Directly on site Medium: Directly adjacent to site Low: Other to site
	Existing capacity to accommodate additional train movements	Capacity Utilisation Index	High: <60% Medium: 60% - 70% Low: 70% or above
	Existing rail infrastructure to allow freight operations	Gauge Clearance (W10 optimum)	High: W10 or above Medium: W8 – W9 (+9Plus) Low: <W8
Accessibility to Business	Intensity of business activity within catchment area of site location	% of business activity from the key sub-sets of manufacturing, distribution, retail (bulk and online) and waste sectors within a ten mile radius of site in the <u>Black Country only</u>	High: Covers >80% of the market drivers Medium: Covers 50% to 80% of the market drivers Low: Covers less than 50% of the market drivers
Highway Impact Assessment	Connectivity to highway network	Vicinity in miles of strategic road network (trunk road/M/way) to site location	High: <3 miles Medium: 3 – 5 miles Low: > 5 miles
	Access to highway network	Journey time (off peak mins) from strategic road network to site location	High: < 5 minutes Medium: 5 – 10 minutes Low: >10 minutes
	HGV accessibility	Local road access suitability for HGV (site visit)	High: Highly suitable for HGV Medium: Adequately suitable for HGV Low: Unsuitable for HGV
Site Ownership	Current legal ownership in favour of rail industry	Land Registry Portal / Local Knowledge of site boundary	High: Rail Industry Ownership Medium: Public (Non Rail) Ownership Low: Private (Non Rail Industry) Ownership
Land Use	Current designated land use in favour of rail industry	Current function / operation of site location (site visit)	High: Rail Use brownfield/industrial Medium: Non Rail Use brownfield/ industrial Low: Other Use (Greenfield)
Accessibility to Labour Market	Intensity of workplace employment activity within catchment area of site location	% of workplace employment activity from the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors within a 10 miles radius of site in the <u>Black Country only</u>	High: Covers >80% of the market drivers Medium: Covers 50% to 80% of the market drivers Low: Covers less than 50% of the market drivers
Local Planning Issues/Policy	Planning Policy fit	Current planning policy alignment to site serving as rail freight interchange	High: Clear and full policy alignment Medium: Some policy alignment Low: Poor policy alignment
	Environmental considerations	Current environmental constraints within or in periphery of site boundary	High: No constrains Medium: Some constraints on site / periphery Low: Many constraints on site

The three shortlisted sites were considered in the full evaluation framework. The results of this high level analysis are summarised overleaf in Tables 2.4 – 2.6.

Table 2.4 Bescot Yard – Site Selection Assessment

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Size	10 ha or above	Hectares	25 hectares (site boundary)	+3 (High)
Layout	Parallel to rail line	Site configuration	Favourable – parallel to mainline	+3 (High)
	Accommodate 775 train lengths	Distance (metres) of current rail line suitable for holding freight trains within site location	Favourable – up to 1300 metres at longest point.	+3 (High)
Rail Connectivity	Connectivity to mainline	Vicinity of rail line to site location	<p>Ideal – located directly on the site</p> 	+3 (High)


Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Rail Connectivity (cont.)	Existing capacity to accommodate additional train movements	Capacity Utilisation Index	Currently 60% (see Section 3.2 below) Capacity exists to consider additional train movements calling at Bescot.	+2 (Medium)
	Existing rail infrastructure to allow freight operations	Gauge Clearance (W10 optimum)	W9. Whilst not optimum (W10 or above) provides sufficient clearance to operate freight services.	+2 (Medium)
Accessibility to Business	Intensity of business activity within catchment area of site location	% of business activity from the key sub-sets of manufacturing, distribution, retail (bulk and online) and waste sectors within a ten mile radius of site	More than 90% of business activity > all identified large businesses from the reviewed sub-sectors are located within this catchment area (see Appendix C for further details).	+3 (High)
Highway Impact Assessment	Connectivity to highway network	Vicinity in miles of strategic road network (trunk road/M/way) to site location	0.3 miles Excellent – assuming new access road via A461 to M1 Junction 9	+3 (High)
	Access to highway network	Journey time (off peak mins) from strategic road network to site location	Approximately 1 minute. Excellent - assuming new access road from west boundary of site to M6 Junction 9	+3 (High)
	HGV accessibility	Local road access suitability for HGV (site visit)	Direct route to Junction 9 of the M6 via the A461 (assuming new road constructed). Route is considered highly suitable for HGV's as the road is sufficiently wide and already used by HGV's	+3 (High)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Site Ownership	Current legal ownership in favour of rail industry	Land Registry Portal / Local Knowledge of site boundary	Rail yard - Under rail industry ownership (DB Schenker (major rail operator)) Potential access road – north west. Land parcel owned by St Francis Group (Bescot) Limited	+3 (High)
Land Use	Current designated land use in favour of rail industry	Current function / operation of site location (site visit)	Brownfield site. Currently rail use (freight yard) with rail sidings and mainline running adjacent. Includes DB Schenker Train Maintenance Depot.	+3 (High)
Accessibility to Labour Market	Intensity of workplace employment activity within catchment area of site location	% of workplace employment activity from the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors within a 10 miles radius of site	More than 90% of employment activity (see Appendix C for further details)	+3 (High)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Local Planning Issues/Policy	Planning Policy fit	Current planning policy alignment to site serving as rail freight interchange	<p>Planning policy at both national and local level is generally supportive of the principle of locating a Rail Freight Interchange at this site subject to the usual requirements for sustainable development, impacts on highways and environmental considerations</p> <p>BCCS PolicyTRAN1 states that the development of transport networks in the Black Country is focussed on amongst other issues improving connectivity to national networks</p> <p>Fully aligns with “TRAN3 The Efficient Movement of Freight” of Black Country Core Strategy – notably:</p> <p><i>“Existing and disused railway lines as shown on the Transport Key Diagram (which includes the line next to Bescot Yard) will be safeguarded for rail related uses. Sites with existing and potential access to the rail network for freight will be safeguarded for rail related uses.”</i></p> <p>Small area of Green Belt adjacent to the site, which could potentially affect any plans to enlarge the current site. However Yard site is of significant size within the study boundary area.</p> <p>(See Appendix D for detailed planning appraisal)</p>	+3 (High)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Local Planning Issues/Policy (Cont.)	Environmental considerations	Current environmental constraints within or in periphery of site boundary	<p>No SSSI, SAC, SPA, NNR, LNR or AONBs within or adjacent to the site</p> <p>The River Tame runs around the western and northern boundary of the site – may necessitate road bridge for road access to cross on northern river axis</p> <p>Area of land directly south of the site as a SLINC (Site of Local Importance for Nature Conservation) – but not considered to be directly affected by any proposal.</p> <p>Within a designated Air Quality Management Area</p> <p>Area of potential Archaeological Importance on land to south east of the site – but again not considered to be directly impacted by any proposal</p>	+2 (Medium)
BESCOT YARD TOTAL SCORE				42

Table 2.5 Dudley (Former FLT) – Site Selection Assessment

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Size	10 ha or above	Hectares	13 ha – meets the IRFT size criteria but on the lower end of the scale	+2 (Medium)
Layout	Parallel to rail line	Site configuration	Favourable – parallel to rail line	+3 (High)
	Accommodate 775 train lengths	Distance (metres) of current rail line suitable for holding freight trains within site location	Maximum length of 600 metres at longest point	+2 (Medium)
Rail Connectivity	Connectivity to mainline	Vicinity of rail line to site location	<p>Not close to existing mainline.</p> <p>However adjacent to the alignment of the reinstated Walsall – Stourbridge freight line. Score reflects this position.</p> 	+2 (Medium)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Rail Connectivity (cont.)	Existing capacity to accommodate additional train movements	Capacity Utilisation Index	<p>Not applicable – no existing line in operation.</p> <p>However adjacent to the alignment of the reinstated Walsall – Stourbridge freight line.</p> <p>Score reflects this position where capacity should be broadly sufficient assuming only shared Metro and freight services run on the line.</p>	+2 (Medium)
	Existing rail infrastructure to allow freight operations	Gauge Clearance (W10 optimum)	<p>Not applicable – no existing line in operation.</p> <p>However adjacent to the alignment of the reinstated Walsall – Stourbridge freight line.</p> <p>Score reflects this position where gauge clearance should meet average loading gauge (W10 as per latest Business Case report¹¹) across West Midlands network.</p>	+3 (High)

¹¹ Walsall to Stourbridge Freight Line, Economic Assessment, Technical Note v4.0, August 2010, SDG

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Accessibility to Business	Intensity of business activity within catchment area of site location	% of business activity from the key sub-sets of manufacturing, distribution, retail (bulk and online) and waste sectors within a ten mile radius of site	Approximately 90% of business activity > nearly all identified large businesses from the reviewed sub-sectors are located within this catchment area. (see Appendix C for further details)	+3 (High)
Highway Impact Assessment	Connectivity to highway network	Vicinity in miles of strategic road network (trunk road/M/way) to site location	3.5 miles Good - direct access to A4037 (dual carriageway) giving access to M5 Junction 2.	+2 (Medium)
	Access to highway network	Journey time (off peak mins) from strategic road network to site location	Approximately 5 minutes	+2 (Medium)
	HGV accessibility	Local road access suitability for HGV (site visit)	A4037 provides highly suitable HGV access to surrounding areas and provides a direct link onto A4123 Wolverhampton Road, which is a high standard dual carriageway that provides access to Junction 2 of the M5	+3 (High)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Site Ownership	Current legal ownership in favour of rail industry	Land Registry Portal / Local Knowledge of site boundary	Dudley Metropolitan Council	+2 (Medium)
Land Use	Current designated land use in favour of rail industry	Current function / operation of site location (site visit)	<p>Brownfield site. Non rail use - Open land (Wasteland).</p> 	+2 (High)



Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Accessibility to Labour Market	Intensity of workplace employment activity within catchment area of site location	% of workplace employment activity from the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors within a 10 miles radius of site	Approximately 90% of employment activity (see Appendix C for further details)	+3 (High)
Local Planning Issues/Policy	Planning Policy fit	Current planning policy alignment to site serving as rail freight interchange	<p>Planning policy at both national and local level is generally supportive of the principle of locating a Rail Freight Interchange at this site subject to the usual requirements for sustainable development, impacts on highways and environmental considerations</p> <p>BCCS PolicyTRAN1 states that the development of transport networks in the Black Country is focussed on amongst other issues improving connectivity to national networks. It also identifies amongst other priorities new freight railways between Stourbridge and Walsall.</p> <p>Alignment to TRAN3 the Efficient Movement of Freight</p> <p>Primary Development Site - UDP Policy UR3 Tipton Road Development Area</p> <p>(See Appendix D for detailed planning appraisal)</p>	+2 (Medium)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Local Planning Issues/Policy (Cont.)	Environmental considerations	Current environmental constraints within or in periphery of site boundary	<p>No SSSI, SAC, SPA, NNR, LNR or AONBs within or adjacent to the site</p> <p>Within a designated Air Quality Management Area</p> <p>Site is directly adjacent to Castle Hill Conservation Area.</p> <p>Number of scheduled monuments associated with Dudley Castle, St James's Priory and the remains of lime workings are located west of the site and number of listed structures associated with Dudley Zoo and Castle to the south west of the site. However likely to be unaffected by any site proposal.</p>	+2 (Medium)
DUDLEY (FORMER FLT) TOTAL SCORE				35

Table 2.6 Round Oak (Dudley) – Site Selection Assessment

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Size	10 ha or above	Hectares	5ha – below the typical threshold for an IRFT only facility with limited potential for expansion	+1 (Low)
Layout	Parallel to rail line	Site configuration	Favourable – parallel to rail line	+3 (High)
	Accommodate 775 train lengths	Distance (metres) of current rail line suitable for holding freight trains within site location	Maximum length of 650 metres at longest point	+2 (Medium)
Rail Connectivity	Connectivity to mainline	Vicinity of rail line to site location	Favourable – adjacent to the Walsall – Stourbridge rail line	+2 (Medium)
	Existing capacity to accommodate additional train movements	Capacity Utilisation Index	Only 7.6% (serving steel terminal site only). However the line between Stourbridge Junction and Birmingham Snow Hill via Rowley Regis, i.e. the line from which trains access Round Oak, is 65.5% (see Section 3.2 below)	+2 (Medium)
	Existing rail infrastructure to allow freight operations	Gauge Clearance (W10 optimum)	W9	+2 (Medium)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Accessibility to Business	Intensity of business activity within catchment area of site location	% of business activity from the key sub-sets of manufacturing, distribution, retail (bulk and online) and waste sectors within a ten mile radius of site	Between 50% - 80% of business activity > majority of identified large businesses from the reviewed sub-sectors are located within this catchment area. (see Appendix C for further details)	+2 (Medium)
Highway Impact Assessment	Connectivity to highway network	Vicinity in miles of strategic road network (trunk road/M/way) to site location	5.7 miles Satisfactory – access to M5 Jn2 via A461 and A4123.	+1 (Low)
	Access to highway network	Journey time (off peak mins) from strategic road network to site location	Approximately 11 minutes	+1 (Low)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
<p>Highway Impact Assessment (Cont.)</p>	<p>HGV accessibility</p>	<p>Local road access suitability for HGV (site visit)</p>	<p>Highly constrained by on-street parking in immediate vicinity off Canal Street:</p>  <p>South access – existing TATA Steel (for Steel Terminal) however requires third party access agreement:</p>  <p>Links onto the A461 Stourbridge Road which is a single carriageway local distributor road suitable for HGV's. This road provides a link to the Dudley Southern Bypass and then the A4123 Wolverhampton Road that links onto Junction 2 of the M5</p>	<p>+1 (Low)</p>

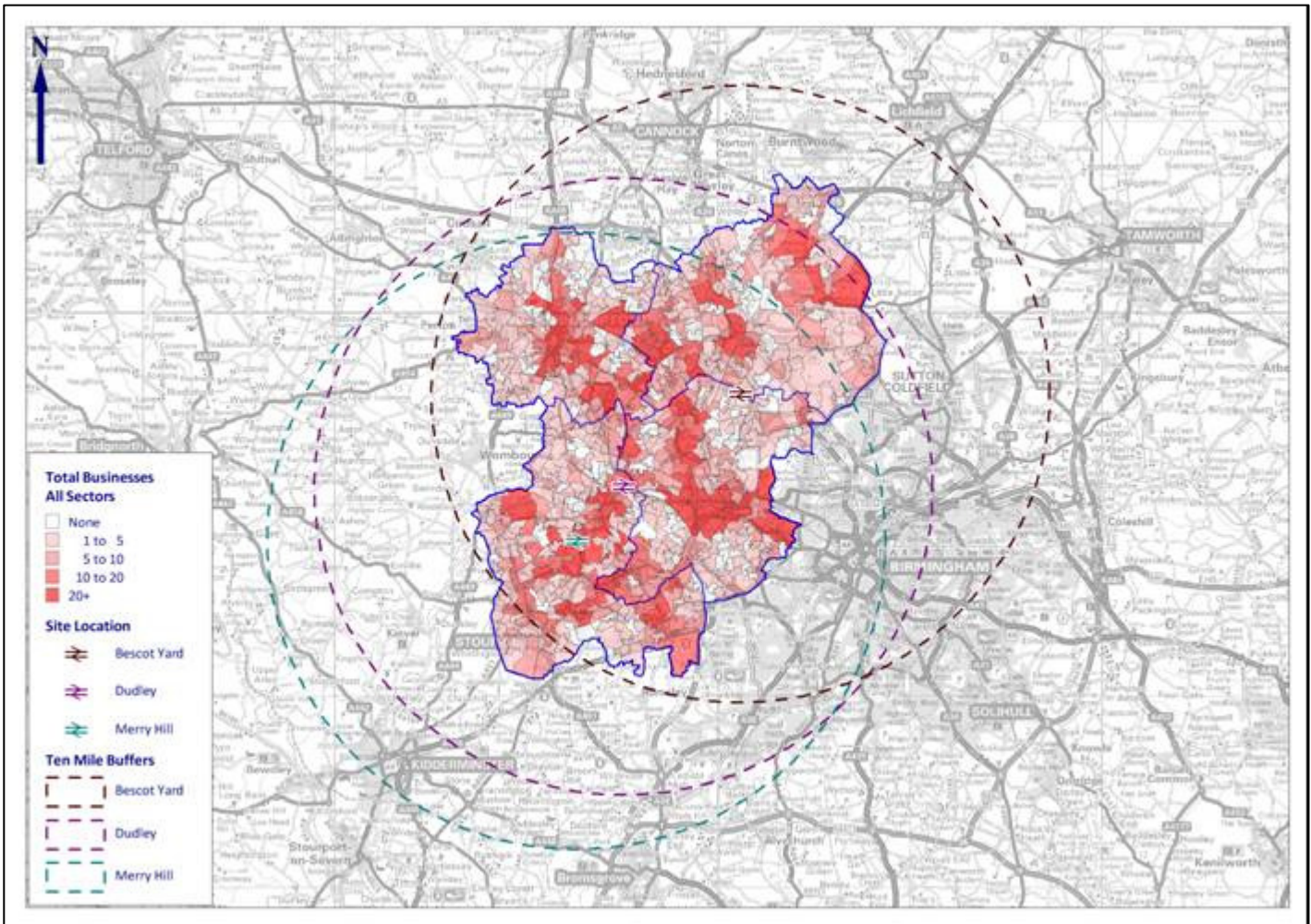
Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Site Ownership	Current legal ownership in favour of rail industry	Land Registry Portal / Local Knowledge of site boundary	Merry Hill WCSCF Finance Limited	+1 (Low)
Land Use	Current designated land use in favour of rail industry	Current function / operation of site location (site visit)	Brownfield site – no active usage (non rail)	+2 (Medium)
Accessibility to Labour Market	Intensity of workplace employment activity within catchment area of site location	% of workplace employment activity from the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors within a 10 miles radius of site	Between 50% - 80% of employment activity (see Appendix C for further details)	+2 (Medium)

Site Selection Criteria	Criteria Description	Indicator	Key Site Performance	Score
Local Planning Issues/Policy	Planning Policy fit	Current planning policy alignment to site serving as rail freight interchange	<p>Planning policy at both national and local level is generally supportive of the principle of locating a Rail Freight Interchange at this site subject to the usual requirements for sustainable development, impacts on highways and environmental considerations</p> <p>BCCS PolicyTRAN1 states that the development of transport networks in the Black Country is focussed on amongst other issues improving connectivity to national networks. It also identifies amongst other priorities new freight railways between Stourbridge and Walsall.</p> <p>Regeneration Corridor Brierley Hill Strategic Centre (BCCS Appendix 2) (See Appendix D for detailed planning appraisal)</p>	+2 (Medium)
	Environmental considerations	Current environmental constraints within or in periphery of site boundary	<p>No SSSI, SAC, SPA, NNR, LNR or AONBs within or adjacent to the site</p> <p>Dudley Canal which forms the site's eastern boundary is identified within the UDP as a Site of Local Importance in Nature Conservation. A 'Wildlife Corridor' also runs centrally through the site, as identified within the UDP and Brierley Hill Area Action Plan</p> <p>Within a designated Air Quality Management Area</p>	+2 (Medium)
ROUND OAK (Dudley) TOTAL SCORE				26

Key to the assessment in helping understand demand side drivers for each site were accessibility to business activity and employment. This analysis is summarised below to demonstrate catchment of relevant commercial sub-set sectors to each site to arrive at the results presented above.

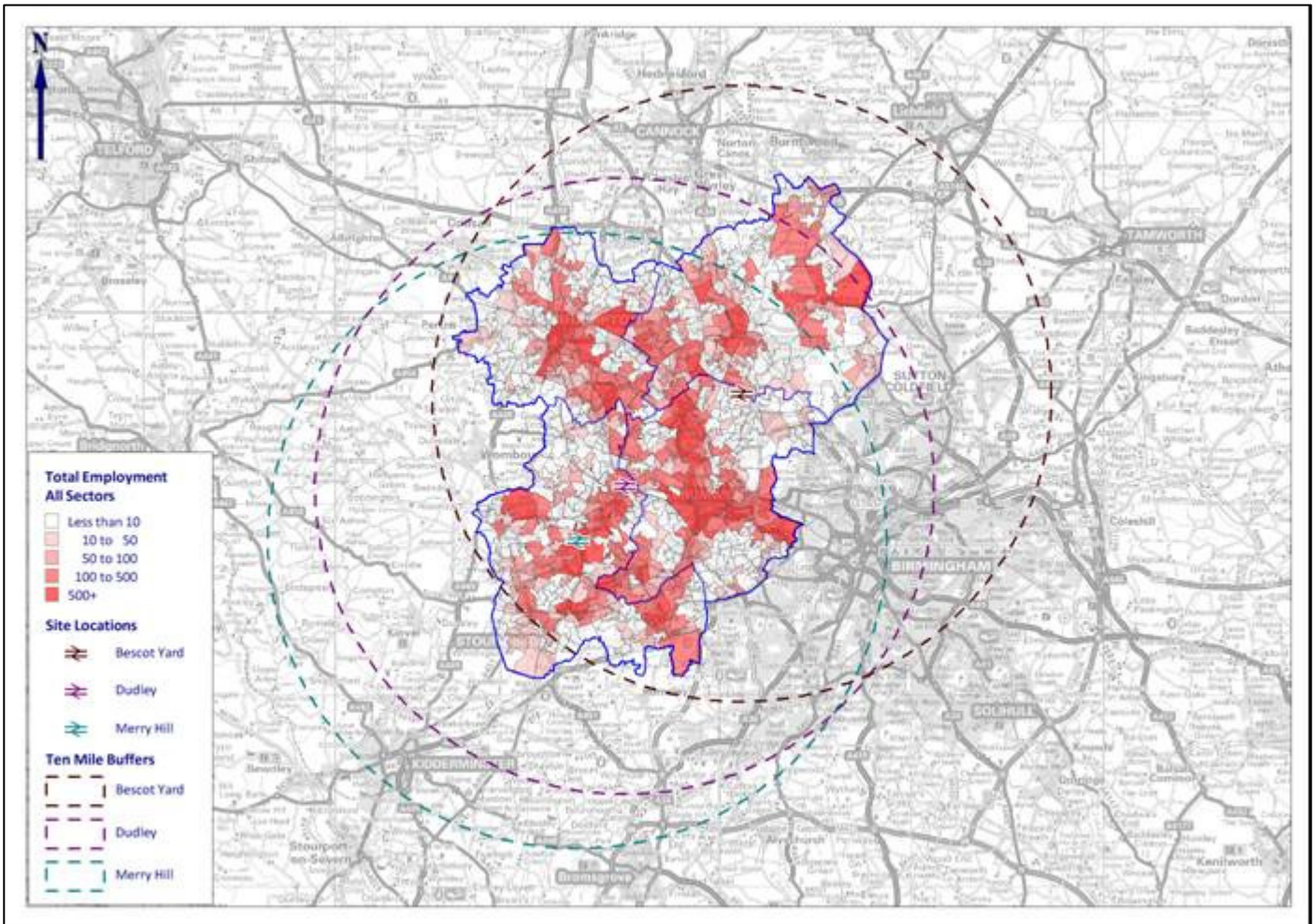
Figures 2.7 and 2.8 provide the results of this analysis using GIS Mapinfo.

Figure 2.7 Accessibility to Business Activity – Shortlisted Sites



Source: Annual Business Inquiry Workplace Analysis, 2008, NOMIS

Figure 2.8 Accessibility to Labour Market – Shortlisted Sites



Source: Annual Business Inquiry Workplace Analysis, 2008, NOMIS

The mapped data indicates that Black Country currently has business clustering, creating hot spots across the sub-region in the key sub-sets. Overlaying a ten mile radius for the three short-listed sites shows that Bescot Yard is well placed to purely serve the Black Country market, whilst Dudley (Former FLT) and Round Oak are next best performers in that order.

The high level full evaluation highlighted the following ranking:

Rank	Site Name	Score
1	Bescot Yard	42
2	Dudley (Former FLT)	35
3	Round Oak, Dudley	26

Bescot Yard was designated the preferred site based on these evaluation results.

The site was subject to further high level assessment – the results of which are presented in Section 3.

3 Preferred Site Assessment

3.1 Indicative Demand Forecasts

Latent Demand

An assessment of the potential market (latent demand) within the Bescot Yard catchment area was conducted to reflect the 10 mile catchment area.

This considered the relevant demand generating business sectors (employment and floorspace) for freight – in particular the containerised market - to derive the forecast and indicate to the market the potential offer of Bescot Yard as an attractive rail freight terminal to transport commodities notwithstanding the operational attractors of competing facilities in the West Midlands.

Key assumptions used in the assessment were:

- % of Load Carrying HGVs: 50%¹² (loaded inbound / unloaded outbound and vice versa)
- Tonnes per TEU: 8.25¹³
- TEUs per HGV: 1.4¹⁴
- Rail freight as a % of total freight lifted: 4.7%¹⁵

Table 3.1 presents the results of this analysis.

Table 3.1 Potential Market Demand Analysis – Black Country Area

Approach	Forecast Annual Tonnes (million)	Forecast Annual TEUs (million)
HGV benchmark per 100 sq m of occupied floorspace	2.4	0.29
HGV benchmark per employee	2.1	0.25
Average	2.2	0.27

¹² Working assumption (anecdotal evidence)

¹³ Assumed load factor of 75% - evidence from Birch Coppice IRT operations (David Turner, Terminal Operations Manager)

¹⁴ <http://www.dpea.scotland.gov.uk/Documents/qJ13769/J210895.pdf> - refers to TEU value of 1.67 however pessimistic scenario adopted to temper figure

¹⁵ Transport Statistics Great Britain, 2011 (2009 data)

The analysis demonstrated potential market in the region of £8000 to £9000 daily tonnes within the catchment area of Bescot.

Appendix E provides the detailed approach to the potential demand assessment.

Forecast Volumes Lifted

Given the challenging nature of estimating volumes lifted in the absence of detailed business market intelligence, including competing site choice, a pragmatic approach has been taken to estimating the likely levels of demand lifted at the new IRFT site to capture the potential market denoted above. This assumes an aggressive marketing strategy is employed by the IRFT facility owner to attract businesses located within the catchment area to purchase logistics service at the Bescot site.

Indicative demand forecasts were prepared based on three operating scenarios that were defined from an industry understanding of typical minimum turnover required for an IRFT only facility. Terminal operations themselves have low margins thereby additional services are usually needed to add value and the scenarios reflect this position:

- **Optimistic case:** 4 trains per day
- **Central case:** 3 trains per day (typical minimum turnover for IRFT only site)
- **Pessimistic case:** 1 train per day

The following parameters used in the assessment were:

- TEUs per Train: 60¹⁶
- Tonnes per TEU: 8.25 (see above)
- Operating days per annum: 260¹⁷
- Background growth: 5% to 2030 (no growth post 2030)

The results of the indicative demand analysis are shown overleaf.

¹⁶ DiRFT <http://planning.northwarks.gov.uk/portal/servlets/AttachmentShowServlet?ImageName=224663> + Landor Street

<http://planning.northwarks.gov.uk/portal/servlets/AttachmentShowServlet?ImageName=224663>

¹⁷ Working assumption

Table 3.2 Bescot Yard – Indicative Demand Forecasts (Scenario Tests)

Scenario	Operating Specification (trains per day)	Forecast Annual Tonnes	Forecast Annual TEUs
Central Case	3	386,100	46,800
Optimistic Case	4	514,800	62,400
Pessimistic Case	1	128,700	15,600

The indicative central case demand forecast reflects 17% of the potential latent demand captured within the catchment area. The lifting volumes reflect approximately 130 HGV movements per day for the central case scenario.

Table 3.3 presents a comparative assessment against established existing terminals from the industry consultation feedback.

Table 3.3 Benchmarking – West Midlands Market (2012)¹⁸

Scenario	Bescot Yard - Central Case Forecast (2012)	Hams Hall	Birch Coppice (BIFT)	DIRFT	Freightliner
Annual TEUs	46,800	200,000	100,000 – 150,000	50,000#	200,000
Trains per day	3	10	No data supplied/ located	No data supplied/ located	No data supplied/ located
% Bescot forecast	n.a	23%	47% - 31%	94%#	23%
Annual TEUs	46,800	550,000			
TOTAL ANNUAL TEU's	596,800				

#reflecting estimated West Midlands market only. DIRFT focus in East Midlands market

¹⁸ Industry feedback / Operator Websites

When compared to the significant Hams Hall terminal facility (200,000 teus per annum) and other terminal facilities, these demand figures are considered robust as a high level assessment for new IRFT start up.

Note the demand assessment assumes mode shift of freight from road to rail as new demand and does not allow for competing terminals to capture a share of this demand (and vice versa). Future detailed assessment will be required to understand such competition effects.

Walsall – Stourbridge Freight Line Reinstatement

Reinstatement of the line will provide opportunity to route into Bescot Yard subject to infrastructure investment.

Our demand framework has assessed that the IRFT will generate new business to the market. However we do not consider at this time that a significant amount of demand will be created by IRFT due to the reinstatement given that most existing intermodal traffic is sourced at Felixstowe and Southampton, with smaller ports also at Tilbury and Purfleet, which access the West Midlands from the south and east, while the Walsall – Stourbridge line runs north-east to south-west. While other ports have ambitions in intermodal, such as Teesport and Bristol, development of the London Gateway port complex in Essex is likely to strengthen the south/east axis for rail intermodal trunking from ports.

However due to investment proposals for creation of a Deep Water Container Terminal on a brownfield site in Avonmouth Docks (Bristol), with DfT consent given in March 2012, it is sensible to assume an additional train per day could operate to / from Bescot via Walsall – Stourbridge line. This would equate to an additional 130,000 tonnes per annum / 15,750 TEUs per annum carried by rail freight.

3.2 Rail Operations – Capacity Assessment

A high level operational review was undertaken of the affected railway for the potential new freight facility. The work considered a number of areas:

- Line capacity accessing the facilities;
- Interface with current and proposed rail infrastructure; and
- The overriding issue has been to determine whether an additional 3 trains per day (minimum handling capacity of the site) could be accommodated within the network – see demand assumptions above – to realistically capture a proportion of the potential demand in the catchment area.

Capacity Analysis

VoyagerPlan was used to provide high level feasibility of the availability of train paths in the vicinity of the Bescot Yard site. This analysis was based on the December 2011 timetable and included;

- Paths timed at TIPLOCs located within the site; and
- Paths bypassing the site on the adjacent line timed at Bescot Stadium, which is a mandatory timing point and therefore takes account of all timetabled paths.

This data was collected for each individual weekday. Data for Saturdays and Sundays was not collected as it can be assumed that the number of train paths will be lower at weekends than during the week, and therefore any capacity issues which were to arise would occur on weekdays.

The Capacity Utilisation Rate (CUR) was calculated to determine the extent to which the available network is currently being used i.e. number of current train paths against maximum potential number of paths, as a percentage. The planning headway on the rail corridor in the immediate vicinity of Bescot Yard is 4 minutes – that is, the minimum time between trains running in the same direction on the same line must be 4 minutes. Therefore, this results in a potential capacity of 15 trains per hour.

The total number of train paths contained in VoyagerPlan was divided by the maximum daily number of paths and multiplied by 100 to produce the following results in Table 3.4.

Table 3.4 Capacity Utilisation Rates – Bescot Yard

DAY	Existing Train Paths (Dec 11)	CUR (%)
Monday	215	59.7
Tuesday	224	62.2
Wednesday	221	61.4
Thursday	227	63.1
Friday	217	60.3
Total	1104	61.3

The results show that the rail network in the vicinity of Bescot Yard is operating at between 60% and 63% capacity on weekdays. CURs were also calculated for existing freight facilities in the region at:

- Round Oak,
- Lawley Street,
- Hams Hall,
- Birch Coppice,
- Telford; and
- DIRFT.

In each case paths running within and directly adjacent to the sites were accounted for. Of these six sites Hams Hall and Telford have weekday average CURs below Bescot Yard's; the network around Lawley Street and DIRFT is operating at above 75% capacity; whilst the infrastructure in the vicinity of Birch Coppice is at nearly 100% capacity.

As a broad indicator of network capacity Network Rail uses the following indicators to determine potential, and therefore to indicate whether more detailed work should be undertaken. The indicative CUR values are;

CUR Value	Explanation
<50%	<ul style="list-style-type: none"> • Reasonable capacity for growth. • Current traffic is not constraining timetabling elsewhere. • Flexibility for service recovery and perturbation
50%-75%	<ul style="list-style-type: none"> • Growth may be difficult to accommodate without impacting performance • Current traffic could constrain timetabling elsewhere. • Sufficient flexibility for normal service recovery and perturbation.
75% - 100%	<ul style="list-style-type: none"> • In terms of train planning, minimal capacity for growth. • Minimal scope for service recovery and perturbation. • This location could determine the timetable elsewhere.
>100%	<ul style="list-style-type: none"> • As 100%, with performance and service recovery being severely compromised with this level of traffic.

On a high density track circuit block railway, such as is found in the West Midlands, a railway can be said to be full when operating at about 80% of its nominal maximum number of paths. Like all dynamic systems, a railway needs to have contingency for the natural variability in performance that takes place even in systems not subject to disruption. The threshold varies between systems according to exact design, technology used and the combination of trains, but the principle remains that if the threshold is exceeded the system will struggle to perform reliably in normal circumstances. Equally it is hard to place new paths into a network operating at or close to this threshold without negatively impacting upon reliability and performance.

The network around Lawley Street is already operating at this threshold, which explains why Freightliner and Network Rail are focusing on increasing the length of trains as opposed to the number of trains. Given this terminal captures a proportion of Black Country area, this again does give some concern to market accessibility from the North West Midlands if capacity expansion does not materialise.

At Hams Hall additional pathing capacity does exist, but the location of this site is not convenient to serve the intended market of the new IRFT. The high CUR at Birch Coppice could be a function of the single line access and the associated capacity constraints, rather than the high number of trains.

DIRFT's capacity issues are likely to be a result of the capacity situation on the southern sections of the West Coast Mainline, which in the long term is intended to be relieved by the development of HS2. The terminal at Telford has spare capacity but is unlikely to serve the same markets as the other terminals in the West Midlands.

It can be concluded that while there are potential constraints to growth at the existing sites, these could be circumvented by changes to operational practice. Nevertheless **the current CUR of circa 60% at Bescot allows 3 trains per day operation (including 4 tpd scenario)** and may still represent a more flexible opportunity for growth in the West Midlands region, and with careful train planning should not affect the reliability of operation of the railway.

Time Sensitivities

At the high level it is considered issues surrounding operational time sensitivities will be minimal in capacity network terms given a 3 trains per day scenario (see above).

Dependant on the level of load of a typical 750 metre train, and the lifting stacker equipment available, it can be expected that to strip, reload and preparation may take between 4 to 6 hours. Under a 3tph scenario this should be feasible without requiring a night shift given the layout and therefore more beneficial to local residents. However if there was a requirement to handle a train during the night period, through mitigation measures (noise fencing) and engagement with local community, this can reduce any negative reaction to night working. However it is expected the requirement for night operations will not be required (potentially a 9-5 facility may be feasible) and this will also be unattractive to freight operators as resources would be tied up longer (i.e. not earning).

3.2.1 Bescot Yard: Walsall – Stourbridge Freight Line

Centro have explored the feasibility of re-instating the Walsall to Stourbridge line which, apart from the section between Stourbridge and Round Oak Steelworks, was closed in 1993 owing to a decline in use. The proposal for its development incorporates an extension of the Midland Metro light-rail network. This would join the existing Midland Metro line between Birmingham Snow Hill and Wolverhampton St George's at Wednesbury. North of Wednesbury the line would continue as a freight only line and would join existing infrastructure at Pleck Junction, south of Walsall station. The reinstatement of Bescot Curve would allow for direct access into Bescot Yard.

The reinstated line would provide an alternative route avoiding Birmingham between Bescot Yard and the south west. A best case scenario of potential capacity would be for a signalling system which corresponds to the surrounding network and therefore able to accommodate a minimum headway of 4 minutes and thus 15 train

paths per hour. However, anticipated demand could still be met with a lower capacity system which would have reduced capital costs. For a single terminal's requirements a relatively basic signalling solution would be able to deliver adequate capacity. According to an Economic Assessment Report prepared for Centro, 'Network Rail estimates that were the route reopened today, up to 24 trains per day would be likely to use it.' With one train per hour a single bi-directional line could suffice. However it is noted that the SDG assessment¹⁹ constrained the operation of 2 trains per day following reinstatement to cover routing between Bristol/South Wales and the Midlands and the north.

The following network capacity and operational planning issues would need to be considered if these proposals were to materialise:

Bescot Curve: The re-instatement of Bescot Curve would allow freight trains approaching from a southerly direction to deviate from the Walsall - Stourbridge line at Bescot Curve Junction, which lies directly underneath the M6 flyover. The acute angle of the curve would limit line speed to approximately 15mph. The line then runs parallel to the Birmingham – Walsall line. These two lines could therefore operate independently of each other. Conflict occurs as the freight line enters Bescot Yard, when crossing over the Bescot Stadium – Wolverhampton line at Bescot Junction. A 775m freight train crossing over a double track line at circa 15mph will create a significant capacity constraint. It is therefore prudent to examine the existing usage of the line between Bescot Stadium and Darlaston Junction to determine the extent of any potential conflict.

At present there are no passenger services operating in either direction between Bescot Stadium and Darlaston Junction. The line is used by freight trains and by passenger trains as a diversionary route during times of engineering works on the mainline between Birmingham and Wolverhampton and the West Coast Mainline.

VoyagerPlan was analysed to determine the exact number of daily paths between Bescot Stadium and Darlaston Junction. On Wednesdays in the December 2011 timetable there are 6 passenger paths, 19 freight paths and 2 paths for light locomotives. It can be assumed that other weekdays will have a similar number of paths, with less on Saturdays and Sundays.

Given this low level of existing traffic and the minimum headway of four minutes on this section of line it can be concluded that there is sufficient capacity to accommodate freight trains into Bescot Yard from Bescot Curve.

¹⁹ Walsall to Stourbridge Freight Line, Economic Assessment, Technical Note v4.0, August 2010, Section 2, SDG

An alternative to using the former alignment of Bescot Curve is to replicate the curve to the south of the M6. This option would provide a direct connection between the Walsall – Stourbridge line and Bescot Yard thus avoiding any need for a crossing movement. The removal of this conflict with the Bescot Stadium – Darlaston Junction line would eliminate the associated capacity constraints. However this would be the high cost option of the two.

Stourbridge North Junction: This location represents a conflict point with consequential limitations on capacity. At present the majority of services operate between Stourbridge Junction and Lye on route between Birmingham Snow Hill and Kidderminster. Trains travelling southbound on the re-instated Walsall – Stourbridge line would have to cross over the northbound Birmingham bound line in order to continue southbound. Any future metro service could avoid this move by crossing onto the existing third line which runs independently of Stourbridge North Junction, before continuing on to a dedicated facility at Stourbridge Junction station. VoyagerPlan was analysed to determine the existing number of train paths between Stourbridge Junction and Lye. The busiest weekday in the December 2011 timetable is Thursdays with 242 train paths. Although not evenly spread over 24 hours, this averages at 10 paths per hour on a railway capable of accommodating 15 paths per hour; therefore limited additional capacity is available.

Additional Freight Pathing Opportunities: Bescot Yard

Our assessment accounted that new signalling would be installed to reinstate the freight line to operational condition. Our assumption regarding headway values was sourced from the latest Business Case report²⁰.

This highlighted that with 4 minute headway maximum capacity of 15 paths per hour could be achieved.

Given the baseline operating assumption from SDG report (2 trains per day), our high level analysis has taken account of this operating baseline as “through” trains but not calling at Bescot Yard. The assessment results demonstrated that an **additional train per day (total of 3 tpd) along the Walsall – Stourbridge line to directly serve Bescot Yard would be feasible.**

The following factors will need to be borne:

- The constraints presented by Bescot Curve’s interaction with the Bescot Stadium - Wolves line (likely to be insignificant), and at Stourbridge North Junction where the reinstated line would join the mainline (significant).

²⁰ Walsall to Stourbridge Freight Line, Economic Assessment, Technical Note v4.0, August 2010, SDG

- Assumption of a 4 minute headway on a double track railway, with lower capacity solutions remaining viable.

Midland Metro Proposals

The future aspirations of Centro to introduce a second Midland Metro line on the re-instated Walsall – Stourbridge line would have a significant impact on capacity. Appropriate signalling solutions would have to be installed to accommodate the mixed use nature of the line. A metro frequency of 6-8 minutes based on the frequency of the existing line equates to a maximum of 10 trains per hour. This leaves capacity for as many as five freight paths per hour in a mixed operating environment. That said **5 trains per hour** would appear to be more than sufficient to cater for any demand generated by the new freight facility, or even background freight traffic volumes through the area (e.g. 2 trains per day forecast as stated in the SDG report).

Safety considerations may put limits on how closely to each other light rail and heavy rail trains may run. Solutions may be possible such as segregation by time block or the use of segregated running lines along a shared alignment. The latter case would allow both freight and metro traffic to run without direct performance risk from interaction, and would maximise availability and flexibility of freight pathing. The former may not cause issues for train quanta, but may limit the times at which they can run.

3.3 Preliminary Consultation

Sandwell and Walsall Metropolitan Districts were initially consulted in September 2012 by phone and email about the IRFT proposal for Bescot Yard. **Appendix F** provides their formal responses (September 2012).

Both Districts support the principle of rail freight interchanges as a driver for mode shift from road to rail reducing HGV use – whilst also recognising local impact may increase.

Key issues raised were:

- **Highway access** – specifically impact on local road network and key junctions. Access was favoured from the A461 (near M6 Junction 9) via new access link.
- **Impact on neighbouring residential areas** – particularly the need for reducing negative impact from noise and lighting.
- **Impact on local rail services / operation** – including the future of Bescot Junction station and recommending any investment proposal includes a package of improvements to improve accessibility to the station.
- **Environmental mitigation** – including issues relating to River Tame through reduced physical impact and minimising surface run off through sensitive design.

Subject to addressing these issues the Districts support the principle of IRFT development in the area.

This feedback has been used to inform our high level assessment of the concept layout and costing below.

3.4 IRFT Concept Plan

An entry level terminal on a “straightforward” site can usually incur an investment cost in the region of only £8-10 million. This could potentially buy a suitable amount of siding space, and sufficient hard standing for crane and road operations, along with a reasonable amount of storage space.

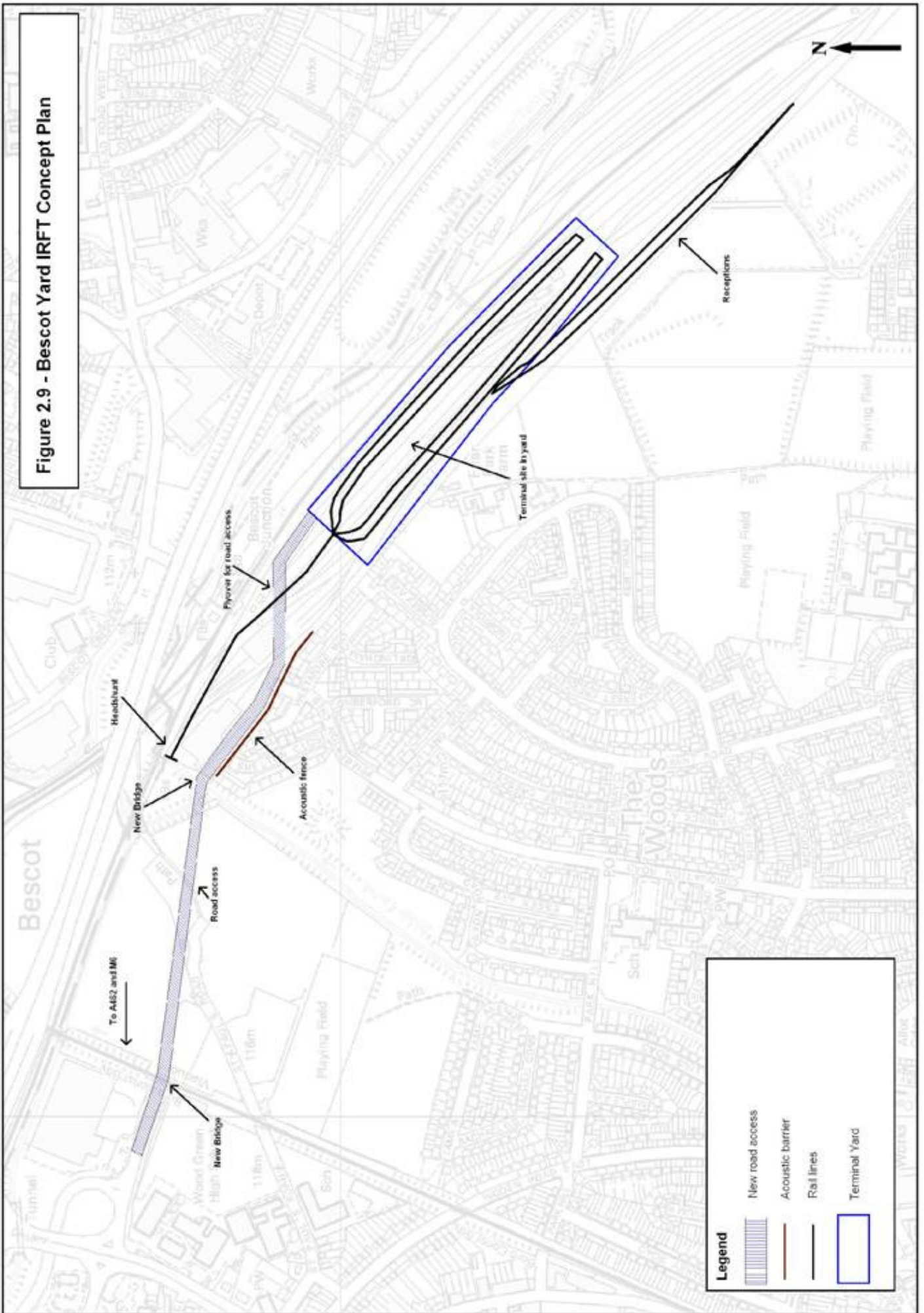
However, most sites in practice come with a number of constraints.

Bescot Yard, as an existing brownfield site, will require demolishing existing structure, removing unwanted infrastructure, and dealing with ground contamination. Also, the proximity of residential housing to the site means that a change in use, and in particular the generation of new light and noise nuisance sources arising from both the site operation and additional HGV movements, will require additional mitigation works.

Given these parameters, Figure 2.9 overleaf presents a concept layout option for the IRFT facility. The plan highlights the proposed terminal yard, reception lines and highway access from M6 Junction 9.

The layout has considered the location of the current Up and Down Through Sidings and identified the Down Storage Sidings as being an area of suitable length to accommodate arriving and departing trains up to 775 metres in length.

Figure 2.9 - Bescot Yard IRFT Concept Plan



The terminal itself would be placed in the area occupied by the Down Sorting Sidings, the through Up and Down Reception Sidings and the single ended north facing sidings between there and the Up and Down Grand Junction running lines that pass through the yard between Tame Bridge and Bescot Stadium stations.

If all of this area were made available the terminal could be double ended and trains could access from either direction. If not feasible, the Up and Down Through/Down Storage sidings area could be used as a reception yard with trains being split and shunted into the terminal via the existing shunt neck to the south of the former Bescot Traction Maintenance Depot, and then reversing into the terminal (as denoted in our concept plan).

Road access to the site has taken cognisance of both highway engineer site investigation in assessing access options (see **Appendix G**) and District consultation feedback.

Whilst it is noted additional HGV's will be generated by the proposal (approximately 129 HGVs), the profile of arrival and departure will be such that should minimize impact on the nearby M6 Junction 9 which is subject to treatment through the Highways Agency "pinch point" investment programme to improve level of service.

Minor treatment (e.g. signage) would be required on the existing highway network from M6 Junction 9 due to adequate widths for HGV use. Inbound movements would follow left turn filter off M6 Junction 9 whilst outbound movements catered for via Axletree way to access the motorway and also cater for inbound movements from the south

A new road will need construction from the Walsall – Stourbridge freight line bridge to the site. Potentially there may be a requirement for a new bridge across the Walsall – Stourbridge line due to potentially inadequate clearance of the existing bridge.

Photos 1-8 below show the current left turn filter southbound from M6 Junction 9, the eastbound approach to the Yard utilising the existing access which currently terminates under the current Walsall – Stourbridge line bridge and the brownfield site that would be required for the alignment of the new access road.

Photo 1 – Left Turn Filter (A461) – looking southbound from M6 Junction 9



Photo 2 – Eastbound Approach to Bescot Yard by A461 junction (Axletree Way shown on left; Walsall – Stourbridge line shown in background)



Photo 3 Looking East to Bescot Yard – Existing road access terminates under bridge



Photo 4 – OPUS Sign highlighting Potential Rail Freight Connection (close to railbridge)



Photo 5 – Looking Westbound towards A461 (Walsall – Stourbridge line bridge shown)



Photo 6 – Looking East to Bescot Yard – Brownfield site (east of bridge)



Photo 7 – Looking north east across Brownfield site - M6 shown nearby in background



A current highway access point exists off Sandy Lane to the west of the site. It is proposed this function remains to provide secondary access for vehicles (mainly to be used for rail freight workers). Photo 6 shows the existing access at present.

Photo 8 – Sandy Lane Access to Bescot Yard



It is assumed access will be required to the wagon repair facility. This necessitates crossing this area either on a level crossing or a road bridge (flyover) – the latter has been assumed as a worst case option. A level crossing could be cheaper to install but carries greater safety risk to road and rail movements; the installation of new level crossings is generally frowned upon and it would probably have to be demonstrated that there was no alternative to it. However the issue could be resolved by relocating the wagon depot to “free up” the site to ensure a more flexible layout and create dedicated storage sidings for the wagon depot and associated activity. With appropriate site design, a suitable relocated site might be created at the Tame Bridge end of the site or on the Up Side. This could allow for a more straightforward, and therefore cheaper road access. However it has been assumed the wagon depot remains in the current position.

3.5 Indicative Costing

Due to the high level scope the preparation of capital costings were based on industry cost benchmarking and previous Halcrow projects.

A summary of the scheme costs is shown in Table 3.5 overleaf.

Table 3.5 Bescot Yard – Indicative Costings

Cost Element	Cost (£000) 2012 prices
Terminal and Trackworks	28,469
Terminal Area Infrastructure	4,655
Signalling	2,058
Highway Works: Internal Circulation (Flyover)	4,968
Highway Works: New Access Road	3,491
Project Management / Project Design and Development / Network Rail / Interfacing / Commissioning	13,584
Sub-Total	57,226
Contingency	19,018
TOTAL	76,244

The grand total is estimated to be approximately **£76.24 million (2012 prices)**. A detailed scheduled cost breakdown (high level) is shown in **Appendix J**.

Estimates have been derived for the clearance of the existing site and for the construction of suitable sidings, hard standing, fencing, road access and basic facilities. Groundworks such as disposal of unwanted contaminated and non-contaminated materials have been considered as well as making up ground to be capable of supporting point loads of up to 50kN per sq.m – this is a standard point load capability for dockyards handling containers. Provision of runways for rubber-tired gantry cranes is also assumed.

Fully signalled layout for arrivals and departures with power operated switches and crossings has been included for single ended layout.

Mobile plant such as reachstackers have been included as start up (x3) for operations.

Note no specific provision has been made for the addition of warehousing, or for the remaking of areas of Bescot Yard not directly connected with the terminal operations.

To reflect the nature of the indicative cost estimation, standard cost contingency assumptions have been applied:

- Project Management – 15%
- Project design and development – 15%
- Interfacing / Commissioning – 15%
- Network Rail costs – 15%
- Contingency allowance – 44% **on-site works** / 25% **highway access**

This cost figure is high mainly because:

- Removal of existing infrastructure;
- issues relating to groundworks and contamination;
- construction of flyover within the site boundary; and
- new access road.

Note no land acquisition costs have been estimated relating to the access road construction.

Note detailed engineering investigations and assessments together with consultation with Network Rail, the site owner and Sandwell and Walsall Metropolitan Borough Councils will need to be conducted to determine the preferred and optimum layout solution and to confirm detailed capital and operating costings for the new IRFT facility. Costs presented in this report are therefore indicative and should be treated with caution.

3.6 Outline Business Case

3.6.1 Approach

A preliminary business case has been prepared to indicate whether the new IRFT investment at Bescot will provide value for money.

Key assumptions employed in the appraisal were:

- Opening year of 2019
- 60 year appraisal period

- 11.5 tonne payload per HGV
- 43 HGVs for each freight train
- 5% background growth rate²¹
- Discount value – 3.5% 30 years then 3.0% remaining years
- Optimum bias 66% rail; 44% highway - as per WebTAG guidance
- 2010 prices at 2010 values²²

The case provided an appraisal of the likely benefits to be derived from the proposed IRFT facility. These benefits reflected the marginal externalised benefits arising from the operation based on the likely modal transfer of freight commodities from road to rail. Put simply, the benefit reflecting the value of removing lorry journeys between two locations (e.g. Bescot to Southampton port).

The assessment was based on an understanding the likely level of indicative demand volumes being transferred from road to rail (see demand results above) and applying distribution assumptions based on freight industry sources to identify potential routing patterns.

Due to the nature of the inter-modal rail market it has been assumed such routing patterns are dictated by the deep sea port and inland intermodal terminals. The distributions were therefore derived from those key terminals representing the different terminal clusters across the UK based on market information (excluding Scotland) as denoted in Section 2.2.3 above.

Calculations were made of the likely marginal benefits to be derived by using Freight Mode Shift Benefits values²³, a recommended approach by DfT that has replaced the previous Sensitive Lorry Miles values.

The marginal external values represent the following cost categories:

- **Congestion**
- **Accident**
- **Noise**
- **Climate change**
- **Air pollution**

²¹ Freight Modal Choice Study: Phase 1 Conclusions – Drawing Together Evidence Final Report, Nov 2010, AECOM/ITS for DfT MDS Transmodal. (2009b). *Rail Freight Forecasts to 2030*.

²² Adjusted Mode Shift Values to 2010 prices at 2010 values

²³ Freight Mode Shift Benefits Values, User Guide and Technical Note, April 2009, DfT

- **Infrastructure**
- **“Other”**

A detailed explanation of the above categories used in the assessment are provided in the DfT paper, “Mode Shift Benefit Values: Technical Report” shown on the DfT website²⁴.

The total benefit values derived for the Black Country study were sourced by using the online calculator through Transport Direct, Freight Grants – Environmental Benefits Calculator²⁵, which uses the above values and calculates the benefit from the information submitted by the user in the form of designating the origin (preferred site) and port destination through the on-line calculator.

3.6.2 Appraisal Results

The results of the value for money analysis are presented in the table below.

Table 3.6 Bescot Yard – Scheme Appraisal (Central Case)

Element	Present Value (£m)
Costs	
Capital	105.38
Total Costs	105.38
Benefits	
Mode Shift Values	183.50
Total Benefits	183.50
NET PRESENT VALUE	78.12
BENEFIT to COST RATIO	1.74

Note: 2010 values in 2010 prices

²⁴ <http://www.dft.gov.uk/publications/environmental-mode-shift-benefit-values/>

²⁵ <http://www.transportdirect.info/web2/JourneyPlanning/FindEBCInput.aspx>

The central case scheme scenario claims a BCR of 1.74 which is defined as medium Value for Money based on current DfT criteria.

Note the PVC does not include for annual operating and ongoing maintenance/renewal costs to ensure a consistent balance was made as no operating revenue information was available for the assessment (and restricted due to commercial confidentiality). Indirect tax revenue is also excluded from the calculation.

Public Sector Value for Money

The IRFT investment works would be funded directly through the private sector (rail industry) whilst the public sector is likely to bear the costs associated to unlock the site for development (i.e. pump priming) such as the new access road.

An additional BCR assessment of the central case was conducted to understand the likely value for money return to the public sector by only considering the public costs associated to the new access road. These costs were estimated as £6.74 million (2012 prices including project management, design and contingency costs).

The results were:

Element	Present Value (£m)
PRESENT VALUE OF COST	7.39
PRESENT VALUE OF BENEFIT	183.50
NET PRESENT VALUE	176.11
BENEFIT to COST RATIO	24.82

Note: 2010 values in 2010 prices

These results clearly demonstrate that the access road investment is likely to return significant value to the public sector.

Sensitivity Testing

Additional scenario tests produced the following BCRs:

- **Optimistic: 2.32**
- **Pessimistic: 1.16**

The results show the effectiveness of the rail freight operation to facilitate modal transfer from road to rail if the indicative volumes lifted materialise (and this in itself will be reliant on an aggressive marketing strategy).

Sensitivity tests were also conducted against the central case scenario to reflect the following conditions:

Table 3.7 Sensitivity Testing

Sensitivity Test	NPV (£m)	BCR	DfT VfM Performance
Capex 10% increase	67.58	1.58	Medium
Capex 10% decrease	88.66	1.93	Medium
0% Background Growth	-21.43	0.80	Poor

A further test was conducted to indicate the London Gateway distribution “effect” to assume potential market displacement from existing terminals²⁶:

- Southampton: 28% (-8)
- Felixstowe: 19% (-8)
- Tilbury: 2.2% (-4)
- London Gateway: 29% (+29)
- Avonmouth: 6% (0)
- Teesport: 5% (-1)
- Thamesport: 2.2% (-4)
- Purfleet: 2.2% (-4)
- Seaforth: 6.2% (0)

This demonstrated a 13% increase in PVB compared to the central case resulting in a claimed BCR of **1.97** (medium VFM).

Overall the scheme is forecast to provide net benefits within BCR range of **0.8 – 2.3** dependant on the operating conditions and market appetite. Given the assumptions within the appraisal framework, this demonstrates that the investment return will most likely provide a positive net present value on the balance of typical operating scenario but with significant dependency on growth in the intermodal market.

The BCRs exclude wider economic benefits of the investment. These impacts are presented separately below.

²⁶ Working assumption

3.7 Planning and Environmental Issues

No major issues were identified in respect of planning and environmental concerns to significantly weaken the case for investment.

The site proposal in principle aligns well with existing policy – notably the Black Country Core Strategy TRAN1 and specifically TRAN3 relating to freight movements including economic development needs through the Black Country Core Strategy.

Given the site has large capacity, environmental constraints, such as the River Tame and greenbelt designated areas, are not likely to become affected and through appropriate and sensitive design should allow any identified impacts to be mitigated.

Appendix D provides the planning appraisal and **Appendix H** the environmental review of the Bescot Yard Site.

3.8 Indicative Forecast Employment Impacts

3.8.1 Approach

An assessment was made of the forecast impacts of Bescot IRFT scheme and the reinstatement of the Walsall – Stourbridge freight line. In particular, the impacts required were for:

- **Scenario 1:** the reinstated freight line individually, which will support two additional freight trains per day²⁷ operating through the region assuming these are new services – not displaced/diverted through central Birmingham;
- **Scenario 2:** the Bescot Yard IRFT individually, which will support three additional freight trains per day through the Black Country (central case); and
- **Scenario 3:** Agglomerated impacts of the reinstated freight line and Bescot Yard IRFT, which will support four additional freight trains per day through the Black Country (assuming 1 tpd running “through” on freight line, 1tpd running to Bescot via freight line, 2 tpd calling at Bescot Yard IRFT only).

The outputs of the assessment are calculated as range of ‘gross’ impacts in terms of employment and Gross Value Added at local, regional and national level.

As demonstrated through analysing rail freight sector trends supported with relevant intermodal rail terminal case studies, presented in **Appendix I**, to detail our high level wider economic assessment approach it is appropriate to infer that the impact of the freight line is likely to have regional and national impacts. In comparison, the case study analysis demonstrates that the freight facilities support localised economic

²⁷ Walsall to Stourbridge Freight Line, Economic Assessment, Technical Note v4.0, August 2010, SDG

impacts. Below summarises the high level wider economic benefits of the three scenarios.

3.8.2 Freight Movements by Scenario

Forecast freight movement projected across the three considered scenarios is presented in the table below based on the assumptions stated in Section 3.1 above.

Table 3.8: Annual freight demand forecasts by WEBS scenario

Scenario	Trains per day	Total Daily TEUs Lifted	Total Daily Freight Lifted	Total Annual Freight Lifted
Reinstated Freight Line	2	120 TEUs per day	990 tonnes per day	257,400 tonnes per annum
Bescot Yard IRFT	3	180 TEUs per day	1485 tonnes per day	386,100 tonnes per annum
Reinstated Freight Line + Bescot Yard IRFT	4	240 TEUs per day	1980 tonnes per day	514,800 tonnes per annum

The results demonstrate that the forecast demand for the reinstated freight line represents approximately 12% of the projected latent demand for rail freight in the Bescot Yard catchment area.

In comparison, proposals for the new IRFT facility potentially could capture up to 17% of the actual latent demand in the sub-region. However, the potential market captured by the two proposals agglomerated could be approximately 23% of the latent demand.

3.8.3 Direct Rail Freight Jobs

The baseline analysis suggested that some 16,165 tonnes of rail freight lifted per full time equivalent (FTE) employee per annum in the industry. The direct rail freight jobs for the three considered scenarios are derived by applying this assumption to the freight projections estimated above. The results in terms of gross FTE jobs are presented in the table below.

Table 3.9: Impacts - Direct rail freight jobs

Scenario	Total Direct Rail Freight Jobs
Reinstated Freight Line	16 FTEs
Bescot Yard IRFT	24 FTEs
Reinstated Freight Line + Bescot Yard IRFT	32 FTEs

Due to the nature of operations in the rail freight sector, only a proportion of these jobs will be located locally, depending of the type and nature of the new local facility.

In the absence of any detailed intelligence of distribution of such impacts, the following assumptions have been adopted for the purpose of this analysis:

- 50% of the new jobs will be direct on-site jobs associated with a new facility
- 50% of the jobs would be dispersed elsewhere if a new facility is being provided
- 100% of the jobs would be dispersed out of the Black Country if no new facility is being provided; hence, under such a scenario, no direct on-site jobs will be created.

The distributed impacts in terms of direct rail freight jobs based on the above assumptions are presented below.

Table 3.10: Impacts – Distributed direct rail freight jobs

Scenario	Rail Freight Jobs: National / Regional (FTEs)	Rail Freight Jobs: Direct On-Site (FTEs)	Total (FTEs)
Reinstated Freight Line	16	0	16
Bescot Yard IRFT	12	12	24
Reinstated Freight Line + Bescot Yard IRFT	16	16	32

3.8.4 Direct Off-Site Impacts

The case study analysis demonstrates that a rail freight facility supports wider economic activity within its close vicinity. In particular, the analysis indicates that there are some 18.3 direct off-site jobs for every direct on-site job at the reviewed freight facilities. Using this benchmark and the direct on-site impacts estimated above, the direct off-site employment impacts across the three scenarios is presented in the table overleaf.

Table 3.11: Direct off-site impacts: employment and development impact

Scenario	Rail Freight Jobs: Direct On-Site (FTEs)	Direct Off-Site Jobs (FTEs)	Off-Site Development Impacts
Reinstated Freight Line	0	0	0.0 ha
Bescot Yard IRFT	12	219	6.7 ha
Reinstated Freight Line + Bescot Yard IRFT	16	292	8.9 ha

As the reinstated freight line brings no additional direct on-site impacts, it is unlikely to support any wider localised employment activity. In comparison, the new Bescot IRFT and the combined proposals (reinstated line and new IRFT) are projected to

support some 219 and 292 FTE gross new jobs from associated sectors (including distribution and manufacturing) respectively.

Supporting any direct off-site economic activity would require provision of good quality employment land. The case study analysis suggested that some 32.72 direct off-site FTE jobs could be accommodated per hectare of employment land. Applying this benchmark, the off-site development impact of the new IRFT facility and combined proposals is estimated at additional demand for 6.7 ha and 8.9 ha of employment land.

It is known to the western periphery of the Bescot Yard site there is a parcel of undeveloped brownfield land currently designated for industrial use²⁸. This may provide the opportunity to capture this forecast off-site development impact given this land parcel is of sufficient size (10.6 hectares). This case is further strengthened given the proposed access road routed from the A461 will follow an alignment through the land parcel further providing the opportunity to unlock the land for development linked to the IRFT site.

3.8.5 Gross Value Added Impacts

Data sourced from *The Value and Importance of Rail Freight*, Network Rail (2010) and the Office of National Statistics indicates the following as per capita GVA benchmarks:

- Rail Freight sector in the UK: £160,369 per FTE per annum²⁹
- All economic activity in the West Midlands region: £43,278 per FTE per annum.

These benchmarks were applied to the relevant estimates of direct employment impacts to derive the estimated annual GVA impacts across the three scenarios shown in Table 3.12.

Table 3.12: GVA impacts (2010 prices)

Scenario	Annual GVA: Generated by Direct Wider Rail Freight Jobs	Annual GVA: Generated by Direct On-Site Rail Freight Jobs	Annual GVA: Generated by Direct Off-Site Jobs
Reinstated Freight Line	£2,553,598 p.a.	£0 p.a.	£0 p.a.
Bescot Yard IRFT	£1,915,198 p.a.	£1,915,198 p.a.	£9,478,747 p.a.
Reinstated Freight Line + Bescot Yard IRFT	£2,553,598 p.a.	£2,553,598 p.a.	£12,638,329 p.a.

Source: Network Rail, ONS and Halcrow

²⁸ Sandwell MBC – Designated for 'Industrial Proposals (Policy EE3)

²⁹ Only national data available

3.8.6 Multiplier Impacts

By definition multiplier effects quantify further economic activity (e.g. jobs, expenditure or income) stimulated by the direct benefits of an intervention. They take two principal forms: an income (“induced”) multiplier which is associated with additional income to those employed by the project (income multipliers) and a supply (“indirect”) multiplier, with local supplier purchases (supplier multipliers). The Department of Business Innovation and Skills’ Research to Improve the Assessment of Additionality (2009) captured a single combined multiplier which reflects these effects at the sub-regional and regional levels for different types of project activities.

The multiplier data presented in the document for ‘regeneration through (provision) of physical infrastructure’ type project activities indicates an average (mean) combined multiplier effect of 1.40 at regional level. Typically these multiplier effects are applied during gross to net impact calculation, which seek to discount factors of non-additionality (e.g. leakage, deadweight and displacement) from gross impact before applying the multiplier effect assumptions to estimate net impacts of a project activity.

However, applying the above mentioned benchmarks, for the purpose of the Black Country Freight Study, the ‘gross’ combined multiplier effects of the scenarios considered are estimated below:

Table 3.13: Economy Multiplier impacts

Scenario	Wider Economy Jobs (FTEs)
Reinstated Freight Line	6
Bescot Yard IRFT	97
Reinstated Freight Line + Bescot Yard IRFT	130

In summary:

- New line: the 16 gross FTE jobs could facilitate creation of a further 6 gross FTE jobs in the regional economy.
- New Facility: the 243 gross FTE jobs could facilitate creation of a further 97 gross FTE jobs in the regional economy
- New Line and Facility: the 324 gross FTE jobs could facilitate creation of a further 130 gross FTE jobs in the regional economy.

3.8.7 Impact Summary

The analysis presented above suggests that the reinstated freight line will support 16 gross new FTEs and associated additional annual GVA impacts of £2.5m (2010 prices).

In comparison, the new IRFT facility is forecast to support approximately 243 gross new FTE jobs and deliver an annual additional GVA impact of some £13.3 m.

However, the agglomerated proposals will deliver outputs which are greater than the sum of the two elements of the proposals individually – in the region of 12% - demonstrating the potential for leveraging further economic additionality.

Table 3.14: Summary Impacts: Total Direct Jobs and Total Annual GVA (2010 prices)

Scenario	Total Direct Jobs	Total Annual GVA Impact (000)
Reinstated Freight Line	16	£2554
Bescot Yard IRFT	243	£13309
Reinstated Freight Line + Bescot Yard IRFT	324	£17745

The multiplier effect will also provide wider economic benefits in the region of 6 – 130 gross FTE jobs across the three scenarios and further increase the GVA impact.

3.9 West Midlands Rail Freight Spine

Black Country Gateway’s contribution to the case for reinstatement of the Walsall – Stourbridge line will depend not only on whether it ultimately generates or simply abstracts demand at the terminal itself, but also what routes the new Black Country Gateway business will actually use.

If the terminal simply abstracts existing business, it is the view that there will be no contribution to a case for Walsall – Stourbridge. As stated above in the demand analysis, if it generates new business, as assumed in our demand work, and this business comes from the existing origins for Midlands intermodal terminals in general, then this is still unlikely to create any significant demand that Walsall – Stourbridge could cater to. Most existing intermodal traffic is sourced at Felixstowe and Southampton, with smaller ports also at Tilbury and Purfleet, which access the West Midlands from the south and east, while the Walsall – Stourbridge line runs north-east to south-west. While other ports have ambitions in intermodal, such as Teesport and Bristol, development of the London Gateway port complex in Essex is likely to strengthen the south/east axis for rail intermodal trunking from ports.

In the context of a West Midlands spine (Walsall – Stourbridge – Lichfield), the main purpose of the Walsall - Stourbridge route from a national network perspective would be to provide capacity to relieve the existing cross-country route via Birmingham, avoiding lines exist for Birmingham New Street exist but trains must still negotiate main lines that are heavily used by intensive local and long distance passenger services. Through trains, not calling in the Birmingham or Black Country areas would use Walsall - Stourbridge as an alternative route, as might trains running into the area from the south-west or north-east directions.

Possible cross-country route freight markets could be:

- South Wales steel. This could run to existing steel terminals with using the through route.

- North-East steel. This would need the through route either to reach the Midlands or to link through to South Wales. In both cases of steel business, volumes can be very much subject to conditions in the commodity markets, especially where scrap is concerned.
- Coal and biomass from Bristol. This would depend on whether contracts could be gained to supply power stations in the East Midlands, Aire Valley, and at Rugeley to make a viable case for the need for capacity. Like steel, such business could be subject to fluctuations in the market for energy commodities.
- Containers from Bristol. Port of Bristol has plans to open a container terminal, but the route itself to the Midlands has more constrained clearances and at present is unlikely to be on the priority list for gaining clearances (routes currently being electrified are being cleared). This would restrict the type and volume of containers to the Midlands, unless low platform wagons can be used.
- Containers from Teesport. Teesport already runs some trains in the North, but again the route to the Midlands has more constrained clearances and at present is unlikely to be on the priority list for gaining clearances. This may restrict the type and volume of containers to the Midlands, albeit Teesport is using low platform wagons. In this case, however Teesport is concentrating on other regional markets.

In the case of Teesport and potentially Bristol, flows related to these ports could be moving the centre of gravity for containerised traffic away from the Midlands, along with London Gateway, and might therefore be a competing factor rather than a complementary one for Black Country Gateway. In themselves they may end up running through the area and still help the Walsall - Stourbridge case without aiding the case for a terminal which is acknowledged does not depend on the investment.

Steer Davies Gleave's 2010 study of the freight line cites potential freight markets in alternative terms, and also cites the capacity benefits improving overall network performance and obviating the need for banking locomotives for heavy freights that would normally need to use the Lickey incline, south-west of Birmingham. Access to Bescot and other existing sites would be improved and there would be greater capacity for future growth (such as the potential examples cited above).

However, in conclusion, while it could be said that the Walsall - Stourbridge line might be usefully re-opened to provide additional capacity on its axis, this would be most likely as a result of an aggregate of demand for route capacity that would be mainly generated away from the Black Country or wider West Midlands. Black Country Gateway's impact on the case for re-opening would be at best marginal which we have reflected in our high level analysis.

4 Summary and Conclusions

4.1 Bescot Yard IRFT Scheme

The high level assessment results demonstrate there is a potential case for the IRFT facility at Bescot Yard given the:

- positive value for money performance;
- additional wider economic benefits; and
- District consensus in principle for the scheme.

This site demonstrated many physical characteristics that favours IRFT operations and the evidence emanating from the site selection process clearly showed no other alternative site has similar characteristics to challenge this view.

Investment monies to deliver an IRFT only facility at Bescot, including appropriate highway access, were estimated to be approximately **£76 million (2012 prices)**. This significant cost reflects the nature of the site; brownfield with major clearance and groundworks required to meet minimum specification.

The effect of the Walsall – Stourbridge line reinstatement is not significant to the case for Bescot Yard IRFT however does add flexibility and route to market particularly freight growth on the south west (Avonmouth) and north east (Teesport) axis.

4.2 Operations and Appraisal

The rail operational analysis confirmed the central case scenario forecast of 3 trains per day operating out of Bescot Yard IRFT, based on the typical start up operation for a facility of this type for minimum turnover, will be feasible given current paths.

Key headline results (dashboard) are shown below for the central case scenario.

Indicator	Forecast Value
Forecast Market Demand:	
<u>Black Country Potential Market</u> : Annual Volumes Lifted	2.2 million
<u>Black Country Potential Market</u> : Annual TEUs	0.27 million
<u>Bescot Yard IRFT Forecast</u> : Annual Volumes Lifted	0.39 million
<u>Bescot yard IRFT Forecast</u> : Annual TEUs	0.05 million
% Potential Market captured @ Bescot Yard IRFT	17%

Indicator	Forecast Value
Cost Benefit Analysis (Central Case) (2010 values in 2010 prices):	
Present Value of Cost	£105.4 million
Present Value of Benefit	£183.5 million
Net Present Value	£78.1 million
Benefit to Cost Ratio	1.74
Forecast Economic Impact:	
Total Direct Jobs (Full Time Equivalent)	223
Total Annual GVA	£13.3 million

Such an operation should deliver predicated volumes lifted to be approximately 386,000 annual tonnes (47000 TEUs) which were considered robust when compared to volumes lifted at existing and more established IRFT sites in the region.

Employment generation is forecast for the Bescot Yard site in respect of direct and indirect job creation. The analysis shows approximately 243 direct jobs could be created following investment under the 3tpd train scenario with a predicted total annual GVA impact of £13million (2010 prices).

Together with the reinstatement of the separate but naturally linked Walsall – Stourbridge freight line, the agglomerated impact is predicted to provide up to 324 direct jobs and £18million (2010 prices) annual GVA.

In pure transport efficiency terms, the investment is predicted to deliver BCR of 1.7 under the 3tpd scenario which is defined by the DfT as delivering medium Value for Money. This is a consequence of the modal shift benefits from transferring freight from road to rail following an aggressive marketing campaign targeted to key business sectors relevant to the intermodal market within the catchment of the site.

The Value for Money measure is sensitive to forecast growth in the intermodal market therefore delivering marginal benefits to society is dependant on this growth materialising in the future.

At present there is no evidence to suggest that this market will become depressed given the forecasts, moreover the major issues relate to whether such growth will either be accommodated by existing IRFT facilities or through new capacity given the industry consultation - and how the latter may impact on the market by depressing commercial rates to impact negatively on commercial viability of IRFT operations in the West Midlands – and capacity issues on certain parts of the rail network accessing the existing sites.

In respect of political and planning consensus, both Sandwell and Walsall MBC support the IRFT investment in principle. Key issues arose were highway access, impact on local communities and passenger operations on the local rail network.

Environmental constraints do exist around the site however the high level assessment indicates that such constraints can be mitigated through appropriate and sensitive design to ensure a sustainable engineering outcome is achieved.

The role of the Walsall – Stourbridge freight line, including any aspirations for a wider freight spine along this corridor in the West Midlands, is also dependant on the key axis distribution flows of containership on the network. Whilst not dependant on Bescot Yard, it is clear the investment proposals at Avonmouth and, significantly, London Gateway will have a bearing on the case for investment however the exact nature of what this will be remains unclear at present.

4.3 Key Issues

Notwithstanding the above, the case for new IRFT investment in the West Midlands is not clear cut – particularly from commercial perspective. A number of issues can be drawn:

- **Competition from existing IRFT sites in the region** – the consultation suggested spare capacity currently exists at these sites (30%) that could accommodate growth;
- **Impact that new IRFT investment will have on market rates** – potentially depressing them thus reducing commercial viability to operators (new and existing) but making more attractive to the market as purchaser;
- **Capacity constraints on the rail network** – particularly to access key terminals such as Lawley Street (nearest to Black Country area) whilst Bescot assessment demonstrates feasible option to run additional freight services;
- **Strong appetite to enter intermodal market (domestic and European) by the rail freight industry** – DB Schenker’s interest in Bescot and Washwood Heath is a good example here; and
- **Improving access to market for Black Country businesses in North West Midlands** – a new IRFT facility at Bescot will provide significant improvement in accessibility to ports given catchment area and levels of congestion on the strategic road network.

Such issues pose an interesting challenge on how the market would respond to growth but moreso how the North West Midlands market would react given that many businesses are located on the periphery of existing IRFT sites.

The results of this high level assessment go some way to indicating a positive case potentially exists for new IRFT investment at Bescot Yard given the issues above.

However to strengthen this position the case warrants further investigation and scrutiny to assure the industry and stakeholders there is a clear and compelling evidence base for investment to deliver a number of economic benefits to the West Midlands region.

4.4 Next Steps

The evidence for investment should be further strengthened through detailed consultation with the rail freight industry and stakeholders – specifically Sandwell and Walsall MBCs to address specific planning and highway concerns emanating from the proposal. This work should dovetail with the ongoing work in preparing the rail freight strategy for the West Midlands.

Consultation should also include Network Rail and Highways Agency in respect of impact on M6 Junction 9 due to its proximity to the site given expected arrival and departure profile of HGV movements to and from the IRFT site.

More detailed work surrounding the demand forecasts and site engineering is required to firm up the high level estimates outlined in this report ensuring that monies directed at Bescot will deliver expected returns through the preparation of a detailed business case and presented to the District authorities via the LEP.



Appendix A

Industry Consultation

Appendix A Industry Consultation

The following rail freight operators were contacted:

- DB Schenker
- Freightliner
- GB Railfreight
- DRS
- Colas Rail

These companies represent the operators currently active in mainstream commercial freight haulage, as opposed to solely the provision of traction hire or the movement of rail vehicles and equipment for the industry itself. Of those contacted by Friday 14th September only DRS had not responded.

DB Schenker

Contact: Nigel Jones, Strategy Director

Profile:

DB Schenker is the largest rail freight operator in the UK, formerly trading as EWS and being the inheritor of BR's trainload, international and express parcels/postal business units. It is now the UK arm of the Deutsche Bahn group's freight and logistics business of the same name. It has national coverage and operates Bescot Yard in the Black Country as well as Midlands railheads at Telford and Rugby.

Response:

DBS owns the Bescot site and has looked at developing a terminal there before. To date it has not been able to make a business case. From a railway point of view, DBS regard Bescot as an ideal location, but the issue of what type of terminal and who it should serve is more open to question. The traditional market in the Black Country is steel, and the region is already well provided for with suitable railheads such as Wolverhampton Steel Terminal. A general freight market is less apparent to DBS in this area. Any new terminal would have to be able to offer bigger trains and possibly offer HS2 links, and be electrified. Bescot would be operationally suitable.

Freightliner

Contact: Tim Jackson

Profile

Freightliner is the UK's biggest and most specialized intermodal freight operator. It also has a bulk haulage business and overseas interests. It operates its own terminal at Lawley Street in Birmingham and serves the ports of Felixstowe and Southampton.

Response:

Freightliner believe that existing terminals in and around the West Midlands still have sufficient capacity for the business done in the area. They are looking to adapt operations and infrastructure at Lawley Street to mitigate its restricted maximum train length under the cranes and hopes to operate 775m trains there in future. Tim Jackson of Freightliner provided the following statement.

“In the Midlands area we currently serve our own terminal at Lawley Street in addition to Birch Coppice (Tamworth), DIRFT (Daventry) and Hams Hall as 3rd Party operators. The Freightliner intermodal services going into these terminals generally originate from the South Coast ports (Felixstowe, Southampton, Tilbury and Grain). As we have previously advised Centro in response to their freight strategy we believe that these existing terminals have further capacity (and scope for expansion if necessary) that can be utilised before additional terminals are considered.

Even if we were delivering boxes into the area from other railheads, to switch these to another train would just add additional cost and have a negative impact on existing sites. The cost equation would therefore mean that the existing sites were cheaper and a new Black Country site could become a white Elephant in the way that Telford has. A box will require a final road leg anyway which wouldn't necessarily be avoided even if you were able to extend the rail leg of the journey closer to the final destination.

Network Rail currently have a project underway that will provide capability on the network to operate 775m long intermodal trains between Southampton and the West Midlands. As an industry we are recognising the importance of maximising train length as a solution to reducing our operating costs and competing more effectively with competition from road.

With this in mind the minimum requirements for a new intermodal terminal would be to have the ability to accommodate 30 wagon, 775m long trains than can be stripped and reloaded quickly, allowing the rail freight operator to 'sweat' their asset. To compete with the existing terminals, it would ideally be located in the vicinity of the West Coast Mainline (bearing in mind the origins of current flows as previously mentioned) on a line with W10 gauge clearance allowing high cube containers to be conveyed (again one of the reasons that limits Telford for intermodal traffic). Other considerations would be the overall size of the site (room for expansion), facilities for empty/laden storage, vehicle/trailer parking, 3rd party accommodation, what equipment will be used (reach stackers or gantry cranes) and how the site is accessed by road and rail.

Whilst we would acknowledge that in time another intermodal terminal may be required we see the demand for this to be more likely to come from the East rather than the Northwest Midlands.”

GB Railfreight

Contact: Julie Garn

Profile:

GB Railfreight has a significant intermodal business, focusing on Hams Hall and some West Coast Main Line trunking. Whilst it does operate into the Midlands, its primary intermodal traffic source is at Felixstowe.

Response:

The Midlands is a busy market for GBRf and the company is keen to see additional capacity. The main requirement is for 40ft (2 TEU) containers, and to a height of 9ft 6in. Any site would need to be connected to warehousing. This latter requirement is what will constrain traffic on any route or to any site. GBRf currently runs 3 trains per week to Hams Hall, one of which splits to also serve Birch Coppice. Birch Coppice is not ideally located for traffic from Felixstowe as it requires a reversing move. GBRf would like to see more choice of terminals. Its typical run distance by road from the railhead is 30 miles maximum north and west. Midlands terminals can have some competition with Doncaster Railport. Doncaster sees 5 GBRf trains per week. In the West Midlands much is regarded as being dependent on the scrap market, which can determine the amount of loaded 40ft containers available to carry out of the area.

DRS

Contact: Chris Connelley

Profile:

DRS specialises mainly in nuclear flask traffic and intermodal. It is less prominent in the Midlands but does run trains to DIRFT. It also runs intermodal services at Teesport.

Response:

No response was received from this company.

Colas Rail

Contact: Andy Saunders

Profile:

Colas rail is a small player in commercial freight and operates some bulk and timber traffics, and is not a major player in intermodal.

Response:

The main focus of the Colas business is timber. Intermodal is a difficult market for the company and Colas regards Hams Hall as difficult to access, not because of internal capacity but because of capacity constraints on rail access. A Black Country terminal would be better than Telford as Telford faces the wrong way. The main concern for any site would be capacity and clearances, and an independence of ownership so that a small operator does not find itself beholden to larger players' interests. Beyond that, Colas has no burning need for terminal capacity in the Black Country at this time.

The following terminal operators were also contacted

- PD Ports
- Potter Group
- John G Russell
- The Malcolm Group

These operators have a long history of operation and working at rail terminals around the country.

PD Ports

Contact: Helene Lyall, Kevin Boulden

Profile:

PD Ports operates Teesport, which has a regular intermodal service provided by DRS using super low floor wagons to deal with the restrictive loading gauge to the port. It does not currently serve the Midlands with its rail service.

Response:

At present PD does not operate inland terminals, so would probably not be interested at this stage in being directly involved in a Black Country site. As a destination the Black Country/West Midlands focused market may be a step too far commercially for PD Ports. However, Teesport's rail volumes are growing and, with the customer focus being on two major retailers, future developments will be led by the client base. The most likely operation needed at a Black Country site would be a simple cross-docking operation for local collection and delivery. Logistically at present however, the West Midlands is difficult to access so a significant shift in customer requirements would have to drive rail volume into the area from the Tees. A more immediate brake on their volumes is clearance constraints, along with length restrictions on routes to and from Teesside. In terms of terminal operations, PD Ports' preference would be for a relatively small terminal where they could have a significant degree of control (even if not ownership), though at present they would see themselves as having plenty of choices in serving this region.

Potter Group

Contact: Stuart Taylor

Profile:

Potter Group is a Cambridgeshire based haulage and storage company that has long used rail. It has rail terminals at Ely (Cambs.), Selby (N.Yorks), and Knowsley (Merseyside), but nothing in the Midlands to date.

Response:

Potter's main focus is on the East Midlands which it can serve by road from Ely. If it were to use a Midlands site it would most likely to be in the East. However, any site would need at least a daily train and ideally 2-3 tpd in order to be viable for them. Potter Group sees the Midlands as being less important in the longer term as rail trunking and developments such as London Gateway shift the centre of gravity to a clearer North/South split. If Potter group needed a new terminal, the most likely site would currently be North-West England. Business would need to be containerized rather than finished goods.

John G Russell

Contact: Graham Russell

Profile:

John G Russell is a Glasgow based haulage and warehousing company with a longstanding rail involvement. It was the initial operator of the Telford rail terminal but has recently parted company with Telford and Wrekin Council, the terminal operation going to DB Schenker. They maintain sites at Hillington, Coatbridge and Barking.

Response:

Russells have been looking at the possibility of terminal use in Burton.

The Malcolm Group

Contact: John Holwell, Rail Development Manager

Profile:

The Malcolm Group is a haulage and logistics business based in the West of Scotland. For a number of years it has developed a presence in rail operating terminals and sub-contracting trunk haulage to rail operators. Malcolm Group has been a significant player in facilitating rail's penetration into the FMCG market. The company is the current operator of the DIRFT rail terminal, and has a separate rail-connected warehouse there.

Response:

The company is aware of a number of potential new sites for terminals in the West Midlands, including suggestion of Coleshill and Penkridge (Staffs). Additional terminal capacity would not be unwelcome but there is plenty of supply at the moment. Funding would be a problem given this, unless warehousing was associated with the development. Ultimately there is not seen to be a pressing need for it. Malcom currently runs 2 trains per day to Scotland from DIRFT, and also a train to Wentloog for Tesco. Freightliner run in from Felxstowe and Tilbury. Capacity utilization is thought to be 70% generally.

Roadways Container Logistics**Contact: David Turner****Profile:**

Roadways operates a hub and spoke based distribution system at ports and inland terminals. It operates the container terminal at Birch Coppice, near Tamworth, which is also known as Birmingham International Freight Terminal.

Response:

The Birch Coppice site serves its market via the A5 and A50 corridors. Road collection and delivery runs into the Birmingham and Solihull areas, as well as Stoke-on-Trent and the Derby, Nottingham and South Yorkshire areas. Very little business goes south. Only 5-8% of business originates in the Black Country. Birch Coppice is about 70% utilized in terms of its own site capacity (average train space utilization of 75%). The main constraint as seen by Roadways is the productive length of trains, and maximizing this will enable growth to take place. Any new terminal would need as critical selling points both train capacity, and storage capacity. Operational flexibility, such as segregated infrastructure that is not dependent on main line signaling may also be an advantage in flexible rail operations.

ABP**Contact: Martin Philpott****Profile:**

ABP is a major port operator in the UK, and operates the Hams Hall terminal near Birmingham. Hams Hall is one of the longer standing of the current generation of intermodal terminals, having been developed in the 1990s with an eye to the market potential of the channel tunnel. It is located in an extensive industrial park and handles around 200,000 TEU per year.

Response:

Key to a successful terminal is its hinterland, and in particular the location and proximity of warehouses to serve. Terminal operations themselves have low margins so additional services may be needed to add value. The volumes at Hams Hall are thought to be similar to those at Freightliner's Lawley Street terminal and double

those at Roadways' Birch Coppice facility. Between these three facilities the bulk of the west Midlands' rail served market is service. There is some overlap with business at DIRFT but this overlap relatively modest and DIRFT generally serves different markets. Martin Philpott cited work by MDS Transmodal for DfT that predicts annual growth of intermodal traffic of 8.7%. He sees key drivers of these being fuel prices and the development of the electric spine. He does not see any readily identifiable new areas that would be able to tap new volumes that could not be catered for anywhere else; capacity at the terminal fits the general consensus of 70% across the region. Given that reachstackers are still in use, capacity could still be increased when the current limit is reached by switching to gantry cranes, which have a higher handling rate. Therefore capacity is not yet an issue, and further south DEIRFT3 will add more capability. Hams Hall also operates a roughly 30 mile catchment area for road haulage, but reckons that about 70-80% of that is within 10 miles.

Conclusions:

It is possible conclude the following points from the comments received:

- 30 mile radius max road distance to terminal (10 mile concentration)
- Catchment for terminals in the West Midlands as a whole tends to be to north and west of the site.
- Train length and gauge clearance on rail routes are critical factors
- Availability of warehousing is a significant factor, although no specific preference was stated for whether the warehousing should be on site or merely easily accessible.

Other issues arising from the consultations are as follows:

- Volumes at Hams Hall are 200,000 TEU/yr. Hams Hall think volumes at Lawley St are similar and about 100,000 TEU at Birch Coppice. These terminals cform the core west Midlands terminal capacity. Hams Hall competes to some extent with DIRFT, so for more peripheral terminals to the region we could add about 50,000 TEU. Total market 550,000 TEU. This figure then represents 70% of capacity, which would then be a slightly over 780,000 TEU. On top of that capacity can still be added by
 - changes in equipment at Hams Hall
 - changes to infrastructure at Lawley Street
 - addition of DIRFT 3 at Daventry
 - exploitation of the under-used Telford facility

Therefore existing sites appear quite capable of accommodating growth for some time yet.



Appendix B

Rail Freight Growth Forecasts

Appendix B Rail Freight Growth Forecasts

West Midlands Regional Logistics Study

The West Midlands Regional Logistics Study showed that there was a 0.12% increase in the amount of maritime containers delivered to the West Midlands by rail freight between 2007 and 2008 (1,891,000 tonnes to 1,893,000 tonnes). Given that unitised imports from outside the EU declined by 5.65% over the same period, the fact that rail volumes to the West Midlands in 2008 were broadly the same as 2007 suggests that rail managed to slightly increase its market share in a falling market.

The total unitised goods delivered by rail in the West Midlands in 2008 was 2,161,000 tonnes. This compares to 83,856,000 by road. Forecasts show that in 2026 4,682,000 tonnes of unitised goods will be delivered to the West Midlands by rail, representing an increase of 116%. This compares to an increase of 14.95% in the amount of goods delivered by road and demonstrates the need for additional rail freight terminals in the West Midlands region.

Total unitised goods delivered to the West Midlands by road in rail - 2008 and 2026 forecast:

	(000s Tonnes)	
	Road	Rail
2008	83,856	2,161
2026	96,394	4,682
Total Growth	12,538	2,521
% Growth	14.95	116.66

Around 16% of existing warehouse floor space in the region is currently located at rail freight interchanges (2009). This comprises facilities at Hams Hill, Birch Coppice and Coventry Colliery. Assuming that a similar percentage of the forecast new-build greater than 25,000m² is also located at a rail freight interchange, around 280,000 million square metres of new large scale warehousing can be expected to be located at a Regional Logistics Site.

Based on a land use strategy which promotes a higher proportion of new-build floor space locating at rail freight interchanges, a gross land requirement of between 307ha and 438ha is forecast up to 2026.

The following statistics provide a forecast for non-bulk trains to the West Midlands 2026;

- Non-bulk rail to West Midlands 2026 4,682,000 tonnes;
- Mean cargo volume per train 340 tonnes;
- Trains arriving in West Midlands 2026 13,770;
- Operating days per annum 250;
- Trains arriving in West Midlands per day 2026 55.

Forecasts show that by 2026 there will need to be sufficient terminal capacity in the West Midlands region to handle 55 arriving trains per day. A typical inland intermodal terminal can handle around 6 to 8 trains per day, depending on the nature of the equipment available. The current provision of five rail freight terminals in the West Midlands region allows for between 30 and 40 train arrivals per day. This suggests the need for an additional 3 or 4 terminals by 2026 to meet the anticipated demand.

Dft Policy Guidance

The Department for Transport Strategic Rail Freight Interchange (SRFI) Policy Guidance document details the planning criteria for rail freight interchange terminals. A SRFI is a 'large multi-purpose rail freight interchange and distribution centre linked into both the rail and trunk road systems, allowing freight to be transferred between transport modes.' The main objectives of government policy for SRFIs is to;

- a) Reduce road congestion
- b) Reduce carbon emissions
- c) Support long-term development of efficient rail freight distribution logistics.
- d) Support growth and create employment.

The lack of existing rail freight interchanges is a consequence of the difficulty in meeting the necessary criteria for such sites. Appropriate sites for SRFIs are limited by the need to be located;

- alongside major rail routes,
- close to trunk roads and;
- near to the conurbations that consume the goods.

SRFIs play an important role in promoting sustainable rail freight growth by facilitating the use of longer, bigger and heavier trains, therefore providing increased capacity and operating efficiency and reducing transport carbon emissions.

Industry forecasts have produced unconstrained rail freight forecasts. In the baseline year (2006) a total of 116 million tonnes were transported by rail nationally: by 2019 this figure is expected to reach 139 million tonnes; and by 2030 the forecast tonnage will be 179 million tonnes. These forecasts indicate that new SRFIs are likely to attract substantial business, and that without the adequate provision of SRFIs the full potential of rail as a means of freight haulage may not be realised.

Network Rail Route Utilisation Strategy

There is a significant level of freight traffic in the West Midlands region, with a focus for rail freight movements in the area to and from the East of England (especially Felixstowe), the South and the South West. Sustained growth is expected in the long term as deep-sea terminal capacity increases. The 1500 acre London Gateway development provides a case in point.

The NR West Midlands and Chilterns Route Utilisation Strategy (May 2011) has identified that;

- Passenger journeys to and from Birmingham are predicted to increase by 32% in the peak by 2020.
- In recent years, rail's freight market share has consistently grown and accounts for an 11% share of the UK surface freight market.
- Between 1997 and 2006 the West Midlands region has seen a 420% increase in inbound trains from UK deep-sea ports.
- The completion of loading gauge clearance to W10 from Southampton to the West Midlands and Felixstowe to the West Midlands (via Peterborough and so avoiding London) in 2011 has stimulated further increases in freight traffic.
- The development of a Strategic Freight Network (SFN) includes an aspiration for extensive W12 clearance.

Constraints on freight growth in the RUS area include;

- The limited number of rail freight terminals situated on rail corridors, with existing provision operating close to, or at their design capacity.
- The lack of suitably gauge-cleared diversionary routes to support a 24 hour 7 days a week operation.
- The lack of looping facilities of sufficient length to accommodate the desired future maximum train length of 775 meters.

The single line section between Leamington Spa and Coventry (a key freight route between Southampton and the West Midlands) is a constraint on capacity.

Other Relevant Sources

MDS Transmodal prepared forecasts of growth in the containership market of 5% per annum up to 2030 (Freight Modal Choice Study: Phase 1 Conclusions – Drawing Together Evidence Final Report, Nov 2010, AECOM/ITS, MDS Transmodal. (2009b). *Rail Freight Forecasts to 2030*).

This paper was prepared for the DfT and made use of significant research and evidence to prepare the forecast.



Appendix C

Accessibility to Business / Employment Approach –
Shortlisted Sites

Appendix C Accessibility to Business / Employment

Multi Criteria Assessment: Economic Drivers

Introduction

The earlier stages of multi-criteria assessment have short-listed the following three potential sites as a potential location for a new intermodal freight facility:

- Besot Yard in Walsall
- Dudley (Former Freightliner) site, and
- Round Oak, Dudley (denoted as Merry Hill)

Decisions to pursue intermodal freight facilities are often underpinned by a strong evidence base regarding key related economic drivers. A robust understanding of these critical site selection drivers can result in development of an efficient strategy and proposals which deliver value addition to their respective economies. The Black Country has a long manufacturing heritage. Over the years, benefiting from its locational advantage, the sub-region has also developed a strong base for the distribution and associated sectors.

The recent Annual Business Inquiry Workplace data sourced from NOMIS for the Black Country Local Authorities, which includes Dudley, Sandwell, Walsall and Wolverhampton, suggests that:

- There are 4,185 businesses and 76,000 jobs in the manufacturing sector in the Black Country. This relates to approximately 12% of all businesses and 17% of all employment in the sub-region.
- There are 4,165 businesses and 49,000 jobs in the distribution sector (which is defined as wholesale and transport & storage sectors) in the Black Country. This relates to 12% of all business activity and 11% of total jobs in the sub-region.

Table 1: Businesses and Employment in the Black Country

Industry	Total number of work units (proxy for businesses)	% of total work units	Total employment	% of total employment
Agriculture, forestry & fishing (A)	52	0%	241	0%
Mining, quarrying & utilities (B,D,E)	216	1%	5,329	1%
Manufacturing (C)	4,185	12%	75,902	17%
Construction (F)	4,196	12%	27,296	6%
Motor trades (Part G)	1,440	4%	9,866	2%
Wholesale (Part G)	2,427	7%	28,253	6%
Retail (Part G)	5,037	14%	47,448	11%
Transport & storage (H)	1,738	5%	20,769	5%
Accommodation & food services (I)	2,244	6%	20,774	5%
Information & communication (J)	1,273	4%	7,550	2%
Finance & insurance (K)	834	2%	10,332	2%
Property (L)	996	3%	6,951	2%
Professional, scientific & technical (M)	3,055	8%	14,150	3%
Business administration & support services (N)	2,892	8%	39,778	9%
Education (P)	861	2%	43,905	10%
Health (Q)	1,909	5%	51,386	11%
Public admin & other (O,R-U)	2,684	7%	37,919	8%
All Industries	36,039	100%	447,851	100%

Source: Annual Business Inquiry Workplace Analysis, 2008, NOMIS

These sectors are likely to be considered as key drivers for freight movement in the sub-region. However, market research suggests only certain sub-sets of these two broad areas of economic activity, along with some specific elements of retail (bulk) and waste sectors are suitable for rail freight.

The remainder of this section, using small area statistics and GIS techniques, assesses the suitability of the three short-listed facilities, particularly in terms of:

- Business access to the facility: defined as intensity of business activity from the key sub-sets of manufacturing, distribution, retail (bulk and online) and waste sectors within a ten mile radius of the proposed locations
- Access to the labour market: defined as intensity of workplace employment activity from the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors within a ten mile radius of the proposed locations.

Comparative review

The recent Annual Business Inquiry Workplace Analysis suggests that there are nearly 5,000 businesses and 66,000 jobs in the sectors which are likely to be demand generators for rail freight in the Black Country.

The data indicated that Black Country witnesses business clustering, creating hot spots across the sub-region in the key sub-sets of manufacturing, distribution, retail (bulk) and waste sectors, which are considered as demand generators for rail freight. Overlaying a ten mile radius for the three short-listed sites allows a visual appraisal in relation to potential market access for the proposed locations. Such a comparative assessment will allow differentiating the site.

In particular, the assessment suggests that:

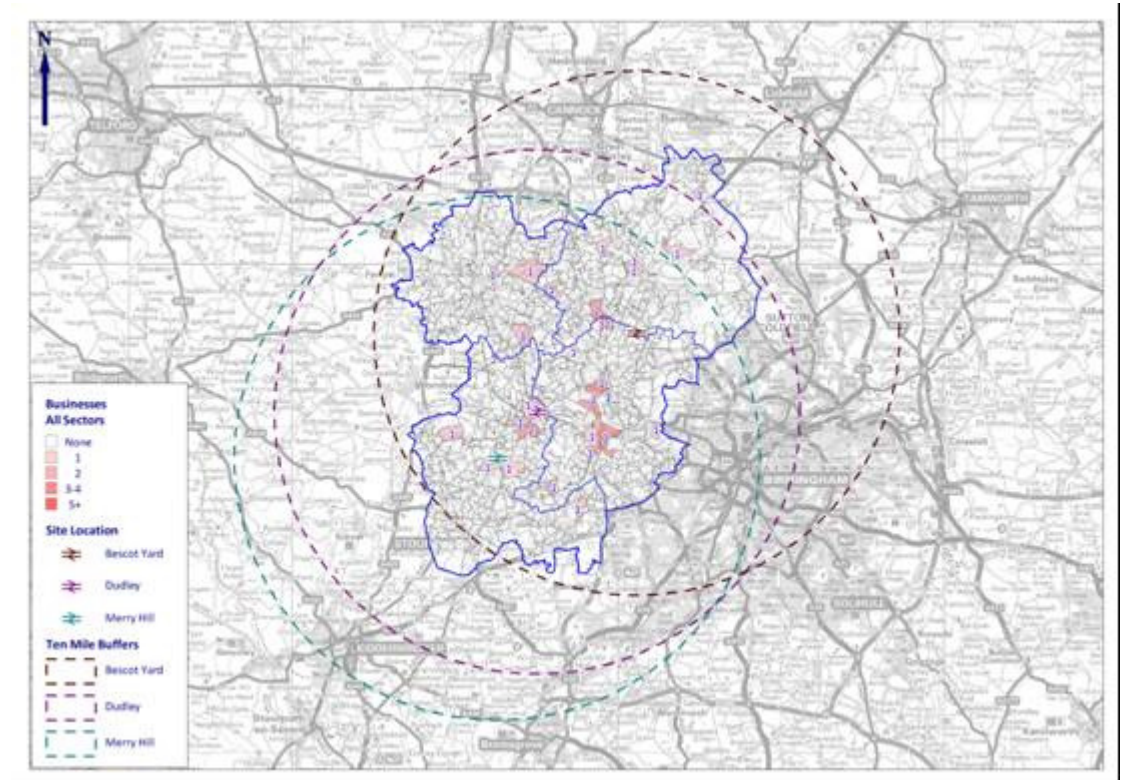
- More than 90% of the business and employment activity from reviewed sub-sectors in the Black Country is located within ten miles of the Bescot Yard site.
- Approximately 90% of the business and employment activity from reviewed sub-sectors in the Black Country is located within ten miles of the Dudley site.
- Less than 80% of the business and employment activity from reviewed sub-sectors in the Black Country is located within ten miles of the Merry Hill site.

A further filter was applied to the above analysis, by mapping businesses from the targeted sub-sectors based on size bands. In particular, the map below demonstrates the location of businesses from the:

- Manufacturing sub-sectors employing more than 200 staff
- Distribution sub-sectors employing more than 200 staff
- Bulk retail employing more than 100 staff
- Online retail employing more than 10 staff
- Waste sub-sectors employing more than 200 staff.

These businesses are likely to be the important demand drivers for the new facility. The data suggests that there 32 work units from these sectors in the sub-region.

Figure 1: Intensity of large-scale business activity from demand generators for rail freight












Source: Annual Business Inquiry Workplace Analysis, 2008, NOMIS

A similar comparative assessment regarding access of large business to the short-listed sites suggests that:




- All identified large businesses from the reviewed sub-sectors in the Black Country are located within ten miles of the Bescot Yard site.
- 31 of the 32 large businesses from the reviewed sub-sectors in the Black Country are located within ten miles of the Dudley site.
- 30 of the 32 large businesses from the reviewed sub-sectors in the Black Country are located within ten miles of the Merry Hill site.

Comparative review

The above analysis suggests that Bescot Yard and the Dudley site are closely matched, providing access to most of the businesses which are likely to be key demand drivers for rail freight. Furthermore, these two sites offer best access to the labour market which may drive direct on-site and off-site activities at an intermodal rail freight facility. In comparison the site in Merry Hill provides access to some 80% of the market drivers and suitable workforce in the Black Country.

Sites	Business Access	Large Business Access	Access to the labour market
<i>Bescot Yard</i>			
<i>Dudley site</i>			
<i>Merry Hill site</i>			

Key:

	<i>Covers most of the market drivers in the Black Country Provides access to most of the labour supply in the Black Country</i>
	<i>Covers 50% to 80% of the market drivers in the Black Country Provides access to 50% to 80% of the labour supply in the Black Country</i>
	<i>Covers less than 50% of the market drivers in the Black Country Provides access to less than 50% of the labour supply in the Black Country</i>



Appendix D

Planning Policy Appraisal – Shortlisted Sites

Appendix D Planning Appraisal

Introduction

The purpose of this technical note is to provide an assessment of the relevant planning policy at both national and local level that is applicable to three sites that have been identified in the Black Country as possibly being suitable for a Rail Freight Interchange. One of the sites, Bescot Yard, is located in Sandwell, whilst the other two, one at the former Freightliner site next to Dudley Castle and the other at Round Oak, are in Dudley.

National Planning Policy Context

The national planning policy context is contained within the National Planning Policy Framework (NPPF) 2012 and is applicable to all three sites. There are several parts of the document which are of specific relevance to the development of a Rail Freight Interchange, and which would be useful to help support the submission of a planning application. These are as follows:

All planning policy has the theme of sustainable development running through it. The NPPF identifies this as having three components in paragraph 7; an economic role, a social role and an environmental role. The Rail Freight Interchange will complement two of the three elements. In terms of the economy it will support growth and innovation; and in terms of the environment it will help to minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy by reducing the need for vehicles to make long journeys by moving large quantities of goods by rail.

The NPPF states that there is a presumption in favour of sustainable development. This means that development in conformity with the development plan should be approved without delay. Therefore if we can illustrate how sustainable the development would be in terms of economic benefits and reduction of the impacts of the movement of freight compared to the use of existing facilities or movement by road then we should have a good case for development.

Section 4 of the NPPF deals with how planning policy should promote sustainable transport. Paragraph 31 particularly supports the case for development and states *“Local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development, including large scale facilities such as rail freight interchanges”*

Local Planning Policy Context

Black Country Core Strategy (BCCS) 2011

The four Black Country Local Authorities (Dudley, Sandwell, Walsall and Wolverhampton) agreed to work together to produce a Black Country Core Strategy (BCCS). The three sites which we are looking at are all located within these areas so there are some policies and principles within the document that are applicable to all sites. This is a spatial planning document that sets out the vision, objectives and strategy for future development in the Black Country to 2026. The Core Strategy is a Development Plan Document and forms the basis of the Black Country Local Authorities' Local Development Frameworks.

The Vision for the Black Country in 2026 is underpinned by three principles; Sustainable Communities, Environmental Transformation and Economic Prosperity. In order to achieve this vision there are various sustainability challenges to be addressed. Of relevance to the proposals we would promote are: facing up to climate change, sustainable development, the prioritisation of development on brownfield over greenfield land and a comprehensive approach to development.

There are several policies in the BCCS that are pertinent to any application for a Rail Freight Interchange as follows:

CSP5 Transport Strategy acknowledges that transport had a key role in providing a catalyst for the urban renaissance of the Black Country, to support national economic competitiveness and growth by delivering reliable and efficient transport networks. The following strategic outcomes from the transport strategy are sought that are of relevance to the proposals:

- Improving air quality and helping to address negative impacts on climate change;
- Improving the accessibility of employment sites to residential areas and providing reliable access and providing reliable access for freight to the national motorway network;
- Containing congestion by developing and managing transport networks to operate more efficiently; and
- Supporting the strategy through demand management and the promotion of sustainable transport.

DEL1 Infrastructure Provision seeks to ensure the provision of appropriate infrastructure in a timely manner to underpin the transformation and regeneration strategy of the BCCS. The policy states that development proposals will only be permitted if all the necessary infrastructure improvements, mitigation measures and sustainable design requirements and proposals are provided.

EMP1 Providing for Economic Growth seeks to ensure a sufficient stock of employment land to meet demand and support the growth and diversification of the economy. The provision of a Rail Freight Interchange will help to support this growth.

TRAN3 The Efficient Movement of Freight states that *“new freight railways and rail sidings as presenting an opportunity for Black Country businesses.”* The wording of the policy specifically encourages the type of development that we are promoting. It goes on to state that *“The movement of freight by sustainable modes such as rail and waterways will be encouraged.”* And *“Existing and disused railway lines as shown on the Transport Key Diagram (which includes the line next to Bescot Yard) will be safeguarded for rail related uses. Sites with existing and potential access to the rail network for freight will be safeguarded for rail related uses.”*

Clearly policy TRAN3 is of significant relevance to any proposals we put forward and fully supports the case for development.

Bescot Yard, Sandwell/Walsall

Bescot Yard measures approximately 25ha and is currently used as Rail Freight Yard and is located on the northern edge of Sandwell on its boundary with Walsall, to the south of, and adjacent to, the M6 motorway, between Junction 9 and the M5 interchange.

The Development Plan for Sandwell currently comprises the BCCS and the Sandwell UDP adopted in 2004 and amended to include saved policies on adoption of the BCCS in February 2011. There are no specific saved policies in the UDP that are of particular relevance to any potential proposals at Bescot Yard. Therefore the BCCS is the primary local planning document of relevance. It is worth noting that given the site's current use it is considered no planning related issues arising, and coupled with the supportive policies in the BCCS this site would surely be looked upon favourably by the planners.

The site has no specific designation for the site on the UDP proposals map. The only issues to note are that there is a small area of Green Belt adjacent to the site, which could potentially affect any plans to enlarge the current site as no development is usually permitted except in very special circumstances, where the harm of the development is clearly outweighed by other considerations. There is also an area of potential Archaeological Importance.

As the site is located right on the edge of the municipal boundary it is important to bear in mind any designations immediately adjacent in Walsall. For that reason the review also looked at the Walsall UDP map 2005 – saved policies, and the only designations are the safeguarded rail network and some Green Belt close to the site.

Local Planning Policy relevant to both sites in Dudley

Following adoption of the Black Country Core Strategy on 3rd February 2011, some policies in Dudley's Unitary Development Plan (UDP) have been superseded. Of the remaining policies that are still used in the determination of planning applications only the following are pertinent to any forthcoming proposal for a Rail Freight Interchange at the former Freightliner site or at Round Oak:

- UR8 Derelict Land states that the Council will facilitate and encourage the reclamation of derelict land. Amongst the priorities for the reclamation of land are to facilitate the development of land for housing, industrial and other appropriate uses.
- UR9 Contaminated Land requires that planning applications to be accompanied by sufficient information to determine the remediation required in relation to the proposed land use.

Specific Local Policy relating to former Freightliner site, Dudley

The site measures approximately 13ha and is located immediately to the east of Dudley Castle Hill and Zoo. It is the former Dudley Freightliner Terminal which was opened on the site of Dudley railway station in October 1967, as one of Freightliner's first rail terminals. The facility was closed in 1989.

On viewing the map showing specific designations for the site the following policies are of importance as they either cover the site itself or are directly adjacent to the site. These policies are a combination of policies from the UDP and the BCCS.

Policies covering the whole site:

- Primary Development Site

UDP Policy UR3 Tipton Road Development Area identifies a whole range of uses that are acceptable and unacceptable. The policy states that uses not identified, for which a Rail Freight Interchange is not, shall be decided on their individual merits. It also states that development will be required to fully respect the nature conservation and archaeological value of the area and its location adjacent to the historic environment of Castle Hill.

- Passenger Rail

BCCS Policy TRAN1 states that the development of transport networks in the Black Country is focussed on amongst other issues improving connectivity to national networks. It also identifies amongst other priorities new freight railways between Stourbridge and Walsall.

- Proposed Cycle route

BCCS Policy TRAN4 creating coherent networks for cycling and for walking, encourages sustainable travel and new development to link into existing walking and cycling networks.

- Freight Infrastructure

BCCS Policy TRAN3 the Efficient Movement of Freight is covered in the general policies for the BCCS earlier in this document. The fact that it is specifically identified as being relevant to the site is encouraging if it was decided that this site was the most suitable to be taken forward.

In the proximity of the site:

- Scheduled Ancient Monument (SAM)

BCCS Policy ENV2 Historic Character and Local Distinctiveness requires that new development that would potentially have an impact on a SAM should be supported by evidence which demonstrates that all aspects of the historic character and distinctiveness of the locality have been fully assessed and used to inform proposals.

Specific Local Policy relating to Round Oak, Dudley

The Round Oak site is approximately 5ha in are and is located in a primarily industrial area between the A461 Stourbridge Road and the A4036 Pedmore Road.

On viewing the map showing specific designations for the site the following policies are of relevance as they either cover the site itself or are directly adjacent to the site. Dudley Council adopted an Area Action Plan for Brierley Hill town centre on 5 August 2011, to include the Merry Hill, Brierley Hill High Street and the Waterfront which this site falls within. The Brierley Hill Area Action Plan (BHAAP) forms part of Dudley's statutory planning framework, and is the starting point for making decisions on planning applications in the area. The policies identified below are a combination of policies from the UDP, the BCCS and the BHAAP.

Policies covering the whole site:

- Regeneration Corridor Brierley Hill Strategic Centre (BCCS Appendix 2)

This identifies the site as being suitable for mixed business and residential and retained local employment.

- Wildlife Corridor

BHAAP Policy 62 The wildlife corridor routes currently pass through both vegetated and heavily built up areas, however they demonstrate the most efficient and effective routes to link the two major nature reserves; the Fens Pool area (including Special Area of Conservation) and Saltwells Local Nature Reserve. Development will be expected to positively contribute to this network. The requirements of establishment and conservation management will vary depending on the position in the network.

Policies covering part of or adjacent to the site:

- Passenger Rail

BCCS Policy TRAN1 states that the development of transport networks in the Black Country is focussed on amongst other issues improving connectivity to national networks. It also identifies amongst other priorities new freight railways between Stourbridge and Walsall.

BHAAP Policy 51 relates to Rapid Transit/Bus Infrastructure Improvements and states that the Council will seek to secure transport infrastructure improvements in line with various routes that they have identified as being important and in conjunction with site specific improvements as identified by Transport Assessments to accompany applications for development.

- Primary Thoroughfare

BHAAP Policy 55 states that the primary thoroughfares identified on the Proposals Map, in this case adjacent to the site, will be delivered and existing thoroughfares will be safeguarded and where necessary, upgraded. All thoroughfares must be designed with the pedestrian foremost in mind and respect natural desire lines.

- Established Development Area

BHAAP Policy 44 states that within the established development blocks the existing mix of land uses is considered acceptable and is anticipated to remain. Where new development or a change of use is proposed within these areas, favourable consideration will be given provided that the proposal does not conflict with other policies in the Plan; there will be no loss of amenity for surrounding land users; and the proposal will not inhibit or prejudice the operations of any nearby occupier.

- Archaeological Priority Area

BHAAP Policy 61 states that the council will:

- Expects developers as part of any planning application to provide adequate information to allow the full and proper consideration of the impact of the proposed development on archaeological remains through desk top archaeological appraisal and, as Dudley Council deems appropriate, subsequent physical site evaluation/building recording.
- Resist development that would have a damaging impact upon significant archaeological remains, and where potentially negative impacts have been identified,

expect developers to devise and put forward for agreement suitable measures designed to mitigate such impact in order to preserve buildings, structures or buried deposits in situ.

➤ Where preservation in situ would be unreasonable, seek to ensure that provision is made for an appropriate level of archaeological investigation and recording of any building, structure or buried deposit of interest prior to the commencement of development, site clearance or infrastructure works and for appropriate publication of the results.

- **Thoroughfares and Public spaces**

UDP Policy DTC1 states that the existing network of primary and secondary thoroughfares within the Town Centre will be safeguarded and upgraded. Castle Hill/Zoo and Castle is identified as a priority for pedestrian and cycle route upgrade.

- **Rapid Transit Block**

BHAAP Policy 50 states that the route allocated for the proposed Midland Metro extension (Wednesbury - Dudley - Brierley Hill) will be safeguarded from development in order to deliver Rapid Transit.

Conclusions

Planning policy at both national and local level is generally supportive of the principle of locating a Rail Freight Interchange in the potential locations that have been identified subject to the usual requirements for sustainable development, impacts on highways and environmental considerations. There are not any major designations on or adjacent to any of the sites that would be show stoppers if we were to take any the sites forward. There are several issues surrounding the sites in Dudley such as potential archaeological issues and being mindful of the proximity to the castle but nothing of note that is unusual for sites in heavily developed areas.

In terms of deliverability, the most suitable site is **Bescot Yard** as it is currently used as a railway yard so the principle of development on the site for a Rail Freight Interchange is already in place.



Appendix E

Potential Market Demand

Appendix E Potential Market Demand

Latent Demand for Rail Freight in the Black Country

Introduction

The recent Domestic Freight Transport data sourced from the Department for Transport states that total freight lifted in the UK has been gradually increasing from 1,923 million tonnes since 1992 and peaked at 2,327 million tonnes in 2007. The data indicates that, mirroring the economic cycle, freight lifted has been declining since 2007. In particular, the Domestic Freight Transport data states that only 1,832 million tonnes of freight was lifted in the UK in 2009.

The Domestic Freight Transport data by mode suggests that rail freight as a proportion of total freight lifted has been declining since the 1990. In particular, the data indicates that 6.3% of freight lifted nationally in 1992 was through rail. In comparison, only 4.7% of freight lifted nationally in 2009 was through rail. Furthermore, the data indicates that an average of 4.6% over the five year period between 2005 and 2009.

The success of a new freight facility in the Black Country will need to reverse such trends and capture on the latent demand likely to be generated from the strong manufacturing and logistics base. This section of the report, utilising data available in the public domain, provides a high level estimation of the above mentioned latent demand.

Demand generating sectors: Employment and Floorspace

The local authority level Commercial and Industrial Floorspace Statistics sourced from Neighbourhood Statistics suggests that the Black Country has a supply of over 7.7 million sq m of industrial floorspace (2008). Furthermore, the data also indicates that the supply of warehousing floorspace is just under 5 million sq m. Average vacancy rate for industrial and warehousing floorspace in the sub-region is high at 12.75%, compared to a national average of approximately 10%.

Table 2: Commercial and Industrial Floorspace and Rateable Value Statistics, 2008

Local Authority	Floorspace sq m ('000s), (2008)		Vacancies % (2005)
	Industrial	Warehousing	
Dudley	1,830	1,012	11%
Sandwell	2,679	2,023	16%
Walsall	1,642	937	9%
Wolverhampton	1,570	987	15%
Total (or average)	7,721	4,959	12.75%

Source: Neighbourhood Statistics

The Annual Business Inquiry Workplace Statistics suggests that there are some 76,000 jobs across all manufacturing sub-sectors in the Black Country sub-region. However, only certain specific sectors are likely to be users of rail freight. The data suggests that some 42,000 jobs in the sub-region are from the short-listed manufacturing based sub-sectors, which are likely to use rail as mode of freight.

Table 3: Manufacturing and Warehousing related employment, 2008

Indicator	Total Employment in Black Country Local Authorities	Source
Freight related manufacturing sectors	41,922	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
All manufacturing sectors	75,902	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
%age of manufacturing employment in freight related sectors	55%	Calculation
Freight related warehousing sectors	14,274	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
All warehousing sectors	49,022	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
%age of manufacturing employment in freight related sectors	29%	Calculation

Source: NOMIS

The data also suggests that there are some 49,000 jobs across all warehousing based sub-sectors in the Black Country sub-region. Likewise, only certain specific sectors are likely to be users of rail freight. The data suggests that some 14,000 jobs in the sub-region are from the short-listed warehousing based sub-sectors, which are likely to use rail as mode of freight.

In summary, the data suggests that only 55% and 29% of all manufacturing and warehousing based employment respectively in the Black Country sub-region is from sub-sectors which are likely to use rail as mode of freight. Applying these estimates to the floorspace statistics presented earlier in this section suggests that:

- Some 3.7 million sq m of industrial floorspace in the Black Country sub-region is occupied by sectors which are likely to use rail as mode of freight
- Some 1.2 million sq m of warehousing floorspace in the Black Country sub-region is occupied by sectors which are likely to use rail as mode of freight.

Table 4: Manufacturing and Warehousing related employment, 2008

Land Use	Industrial	Warehousing
Total Floorspace in the Black Country LAs	7,721,000	4,959,000
Vacancy rate	12.75%	12.75%
Total occupied floorspace	6,736,573	4,326,728
Employment in Freight related B2 or B8 sectors	41,922	14,274
Employment in all B2 or B8 sectors	75,902	49,022
%age of employment in freight related sectors	55%	29%
Floorspace occupied by freight related sectors	3,720,727	1,259,837

Source: Neighbourhood Statistics, NOMIS and Halcrow

Other demand factors: HGV Trip Rates by Land Use and Freight Assumptions

The TRICS Database managed on behalf of Department for Transport provides daily trip rates for sample sites and type of vehicles. Sample sites on the database can be filtered by land use class. The HGV Trip Rates derived for a sample of predominantly industrial and warehousing sites across England from the 2012 update of the database are summarised in the table below.

Table 5: Typical HGV Trip Rates for manufacturing and warehousing sites

Land use	HGV Trip Rates
HGV Trips per employee: predominantly manufacturing sites	0.39
HGV Trips per employee: predominantly warehousing sites	0.89
HGV Trips per 100 sqm of occupied floorspace: predominantly manufacturing sites	0.51
HGV Trips per 100 sqm of occupied floorspace: predominantly warehousing sites	1.19

Source: TRICS Database, 2012 (DfT)

In order to estimate the demand for freight by all modes, some additional data is required. These benchmarks, which are based on industry practice, are outlined in the table below.

Table 6: Freight Benchmarks

Payload per TEU (20 ft container)	8.25 t per TEU
Number of TEUs per HGV	1.4

Source: Payload – Birch Coppice (BIFT) evidence; MDS Transmodal 2011 Paper

Latent Demand in the Black Country for Rail Freight

Bringing together the data presented in the sections above, latent demand for rail freight in the Black Country sub-region is estimated at approximately 9,200 tonnes lifted per day.

Table 7: Potential Rail Freight Demand in the Black Country – Approach 1

Demand Estimate: Approach 1 (using HGV benchmark per 100 sq m of occupied floorspace)				
Land Use	B2	B8	Source	
a	Total Floorspace in the Black Country LAs	7,721,000	4,959,000	Land Use Statistics, DCLG, 2005
b	Vacancy rate	12.75%	12.75%	Land Use Statistics, DCLG, 2006
c	Total occupied floorspace	6,736,573	4,326,728	Halcrow calculation
d	Employment in Freight related B2 or B8 sectors	41,922	14,274	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
e	Employment in all B2 or B8 sectors	75,902	49,022	Annual Business Inquiry: Workplace Analysis, 2008, NOMIS
f	%age of employment in freight related sectors	55%	29%	Halcrow calculation
g	Floorspace occupied by freight related sectors	3,720,727	1,259,837	Halcrow calculation
h	HGV trips per 100 sq m of occupied floorspace	0.51	1.19	TRICS sample data (two way daily trips)
i	Total HGV Trips (DAILY)	19,118	14,941	Halcrow calculation
Total HGV trips				
		34,060	Halcrow calculation	
% of load carrying HGVs				
		50%	Halcrow working assumption	
Total load carrying HGVs				
		17,030	Halcrow calculation	
Payload per TEU (20 ft container)				
		8.25 t per TEU	Birch Coppice (BIFT) data	
Number of TEUs per HGV				
		1.4	MDS Transmodal 2011 Paper	
Typical payload per HGV				
		11.55 t	Halcrow calculation	
Freight demand in Black Country LAs from freight related sectors				
		196,694 t	Halcrow calculation	
Rail freight as a % of total freight lifted in Great Britain				
		4.7%	Transport Stats GB, 2011 (data for 2009)	
Estimated latent demand (Daily)				
		9,245 t	ESTIMATED to be Lifted Daily	

The above estimate derives HGV trips and subsequent freight demand estimates using trip rate benchmarks per 100 sq m of occupied floorspace.

An alternative approach, which estimates HGV trips and subsequent freight demand estimates using trip rate benchmarks per employee generates slightly different results. In particular, this approach estimates latent demand for rail freight in the Black Country sub-region at approximately 7,900 tonnes lifted daily.

Table 8: Potential Rail Freight Demand in the Black Country – Approach 2

Demand Estimate: Approach 2 (using HGV benchmark per employee)				
	Land Use	B2	B8	Source
a	Employment in Freight related B2 or B8 sectors	41,922	14,274	Land Use Statistics, DCLG, 2005
b	HGV trips per employee	0.39	0.89	TRICS sample data (two way daily trips)
c	Total HGV Trips (DAILY)	16,552	12,662	Halcrow calculation
	Total HGV trips	29,213		Halcrow calculation
	% of load carrying HGVs	50%		Halcrow working assumption
	Total load carrying HGVs	14,607		Halcrow calculation
	Payload per TEU (20 ft container)	8 t per TEU		Birch Coppice (BIFT) data
	Number of TEUs per HGV	1.4		MDS Transmodal 2011 Paper
	Typical payload per HGV	11.55 t		Halcrow calculation
	Freight demand in Black Country LAs from freight related sectors	168,706 t		Halcrow calculation
	Rail freight as a % of total freight lifted in Great Britain	4.7%		Transport Stats GB, 2011 (data for 2009)
	Estimated latent demand (Daily)	7,929 t		ESTIMATED to be Lifted Daily



Appendix F

District Consultation

Appendix F District Consultation

Responses received: 24th September 2012

Proposed Intermodal Freight Interchange - Bescot Yard.

Sandwell Metropolitan District Council

Access to the site – Three options:

- *Direct access from M6* – Given the extremely close proximity of Junctions 8 and 9 and the regular congestion that results, I would think it not technically feasible to achieve direct access from the M6. I very much doubt the Highways Agency would entertain the idea.
- *M6, Junction 9 via Axletree Way slip road* – Access to Bescot from this location has been accepted in principal since the late 1980s when Bescot was being considered as a potential Channel Tunnel freight terminal. The Black Country Development Corporation even got as far as securing planning permission for the route as far as the site boundary. The approved Opus proposals allow for the existing access road to continue under the Walsall-Stourbridge railway line (the necessary bridge is already constructed) and into that site. It would be relatively straightforward to continue this through into the Bescot site.

There would obviously be concerns regarding the impact on Junction 9 but it is likely that the majority of HGV movements generated by the RFI would occur outside of peak hours and as such I understand that the HA have already indicated an ‘in principle’ acceptance to this arrangement in discussions with Centro.

This arrangement would not require HGV’s to pass through residential areas and is clearly the preferred solution. However it should be borne in mind that back in the 1980/90s there was considerable opposition to the new road from residents in the Kent Road area. This was based on the road running very close to rear gardens and any design for an RFI should seek to mitigate this.

- *A4031 Walsall Road via Sandy Lane* – Access to the site from Walsall Road was also considered at the time of the Channel Tunnel terminal deliberations. However, routes to the motorway network from here involve passing through existing residential areas both to the M5 at Junction 1 and the M6 at Junction 9. In addition, the land immediately south of the yard adjacent to Friar Park Road is allocated for residential use. Therefore I would be against such an arrangement other than as a secondary, car only, access for staff.

Impact on rail services/operations.

I don't have any information with regards to the impact, if any, on passenger services on the Birmingham-Walsall-Rugeley line. The Walsall to Rugeley section will be converted to electric traction during Control Period 5 and we would obviously have concerns *if* the IRFI were to adversely affect passenger services.

I would expect that an IRFI at Bescot would strengthen the case for reinstating freight services on the Stourbridge-Walsall route and this would be wholly consistent with the Black Country Core Strategy and with the Black Country LEP's priorities.

Other issues.

- *Housing sites to south of the yard* – The Site Allocations & Delivery Plan Document identifies land at Friar park road (HOC8) for residential development. I would consider that a buffer zone will be required within the site to protect future housing from the existing Bescot facility. The use of Bescot as an Intermodal RFI with associated craneage would reinforce this need.
- *River Tame Flood Management* – Both the access road, and the site itself, lie in the flood management area for the River Tame. A large area of hardstanding will doubtless be required in association with the container yard. This will potentially increase the flood risk so suitable mitigation needs to be considered.

Andy Miller

Transportation Planning

24:09:12

Walsall Metropolitan District Council

Sent: Monday, September 24, 2012 2:30 PM

To: Morgans, Philip

Cc: Myatt John; Urquhart Sandy

Subject: Bescot Sidings - Centro-Funded Study

Phillip,

John Myatt advises that you were seeking a view from Walsall officers re the Centro-funded study looking at the potential for an Intermodal Rail Freight Terminal (IRFT) at Bescot Sidings. Walsall Council is generally supportive of proposals to improve the rail freight network in the area and increase investment and jobs. The proposal for an IRFT at Bescot could also increase justification for the restoration of freight (and eventually passenger services) on the Stourbridge – Walsall – Lichfield rail network.

However, you will appreciate that this proposal will have an impact on the transport network and local amenity and will therefore need to be carefully justified. There are several planning/transport issues which we would like to highlight: -

1. The effect on the road and rail network, including passenger rail network, where we are anxious to ensure that there is adequate capacity for passenger rail services serving Walsall.
2. The effects on M6J9 which already has traffic congestion issues.
3. Bescot Stadium station needs to be maintained and access/safety improved.
4. The effect on local amenity (visual, noise, traffic) especially of residential areas close to the proposed development.
5. The effect on greenbelt land adjacent to the M6 motorway.

In view of these issues, I would ask that we meet at a suitable stage of the study to discuss any proposals you are formulating and how they may affect Walsall residents and businesses.

Regards,

Matt Crowton

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Appendix G

Highway Appraisal

Appendix G Highway Appraisal

Introduction

The purpose of this technical note is to provide a high level assessment of highway location and the potential future traffic impact on the local highway network, for three potential sites that have been identified for a new freight terminal in the Black Country, West Midlands.

The three potential sites are described as follows;

- Bescot Yard - Land south of M6, Walsall near Bescot Stadium Railway Station and Junction 9.
- Dudley (Former Freightliner Terminal) site - Land off Tipton Road, Dudley adjacent to the alignment of the abandoned Walsall – Stourbridge freight line.
- Round Oak, Dudley - Land off Canal Street, Dudley.

Scope

The freight terminal may generate a high number of journeys made by Heavy Goods Vehicles (HGV'S) to pick up and drop off commodity freight containers as well as staff and day to day business trips. It is therefore important to understand at a high level how these vehicle types may impact on existing users and transport infrastructure in the vicinity of the site.

It is assumed that the closer the sites are to the existing strategic road network and trunk road, the better serviced they are considered, this is because the strategic roads are designed to accommodate larger vehicles. Therefore the following criteria have been developed in order to provide a high level accessibility of the sites;

1. Using aerial photography (Google Earth) assess the suitability of local routes for HGV use, including routing to the nearest trunk road network. Also provide a view on the suitability of local junctions for such movements.
2. Using route planning software determine the journey time and distance between site and motorway or trunk road network.
3. Provide a view on congestion of nearby key strategic junctions / links. However it is considered that the development is likely to generate most traffic outside network peak periods and therefore the impact is expected to be limited, further investigation will need to be undertaken.

Accessibility Appraisal

Site 1 Bescot Yard

There are a number of potential options to access the site as follows;

1. **Potential Access Option 1** – It maybe possible to provide access from the A461 across an existing brownfield site (potentially a bridge over Walsall – Stourbridge rail line) and a bridge over the River Tame to enter the Yard near the train maintenance depot. The deliverability of a bridge to investigate the clearance over power lines and availability of land for setting down the new access road and bridges would require further investigation. In addition this option would require

third party agreements and will be more expensive than Option 1a and 1b; however it will benefit from a shorter distance to Junction 9 of the M6 and will not need to pass residential properties.

2. **Potential Access Option 2a** - Sandy Lane currently provides access to the north part of the site but internet mapping suggests the access road is constrained by a narrow bridge over the existing railway line; the feasibility of the bridge to carry significantly more HGV's would need to be examined. In part Sandy lane also provides access to some residential dwellings who park on-street; however the width of Sandy Lane is wide enough to accommodate two buses to pass each other when cars are parked.
3. **Potential Access Option 2b** – An alternative to option 1 should it be feasible to provide the new development building to the south of the site and avoid potential issues with the narrow bridge, is construct a new road off Sandy lane to the south of the bridge.

For Option 1, there is direct route to Junction 9 of the M6 via the A461, this route is considered suitable for HGV's as the road is wide and already used by HGV's.

For Option 2a and 2b, the route to Junction 9 of the M6 via Sandy Lane is considered suitable for HGV's. Sandy Lane links onto the A4031 Walsall Road which is a dual carriageway then onto the A4148 Broadway West that provides access to Junction 9.

Using route planning software the journey time to the nearest motorway junction for Option 1 (M6 Junction 9) is approximately less than one minute; the journey distance is 0.3 miles. For Options 2a and 2b, travel time is approximately five minutes; the journey distance is 2.6 miles.

Anecdotal evidence shows that some congestion exists on Junction 9 of the M6, however it is understood that there are proposals by the Highways Agency to improve the traffic signal operation by upgrading the signals to a MOVA controller.

Site 2 Dudley (Former FLT site)

The A4037 Tipton Road, which is a dual carriageway, adjoins the eastern edge of the proposed site; it is assumed access would be taken from this road. This road provides good high level access to surrounding areas and provides a direct link onto A4123 Wolverhampton Road, which is a high standard dual carriageway that provides access to Junction 2 of the M5.

Internet mapping suggests the site is at a lower level than the road level, for access a ramp access down to site level maybe required which may require expensive bridge works. However there may be other opportunities for access but would require third party agreements, access to the site could be achieved through the Black Country overspill visitor car park.

Using route planning software, the journey time to the nearest motorway junction, which is Junction 2 of the M5, is approximately five minutes. The journey distance is 3.5 miles.

Anecdotal evidence shows that some congestion exists on the A4037 Tipton Road/A461 Birmingham roundabout during the peak periods. In addition there are some junctions on the A4123 Wolverhampton Road, including Birchley Island which

is located adjacent to Junction 2 of the M5 which experiences congestion in the peak periods.

Site 3 Round Oak, Dudley

There is no strategic route that adjoins the site. Canal Street which is a local access road provides access to the site, however internet mapping suggests this is constrained by on-street parking with some businesses using this access road to load and unload vehicles. Canal Street links onto the A461 Stourbridge Road which is a single carriageway local distributor road that provides access to local residential and employment areas. This road accommodates a bus route and therefore considered suitable for HGV's. This road provides a link to the Dudley Southern Bypass and then the A4123 Wolverhampton Road that links onto Junction 2 of the M5

Using route planning software the journey time to the nearest motorway junction, which is Junction 2 of the M5, is approximately ten minutes, during peak period the journey time is likely to be longer. The journey distance is 6 miles.

Anecdotal evidence shows that some congestion exists on the A4123 Wolverhampton Road, including Birchley Island which is located adjacent to Junction 2 of the M5.

Option Evaluation

The potential three site options have been evaluated against the criteria of suitable routing for HGV's, location from the trunk road and potential impact on the highway, this is summarised in Table 1.

It should be noted that high level analysis has been established using aerial photography (Google Earth), journey time to the trunk road has been determined using AA routeplanner and anecdotal evidence on the existing congestion at junctions/links is determine through local knowledge.

Table 1 Accessibility appraisal summary table

Objective	Sub-Objective	Bescot Yard – Option 1	Bescot Yard - Option 2a and 2b	Dudley (Former FLT)	Round Oak, Dudley
Strategic Route	Adjoins Site	Yes / A461	Yes / A461	Yes / A4037	No
	Congestion (existing) in peaks	Heavy	Heavy	Heavy	Heavy
Access	Road access	A461 (just south of M6 Junction 9)	Sandy Lane / A4031 / A4148	A4037 / A4123	Canal Street / A461 / A4123
M/way / Trunk Road	Distance to trunk road	0.3 miles	2.6 miles	3.5 miles	5.0 miles
	Journey time to trunk road	Circa <1 minute	Circa 5 minutes	Circa 5 mins	Circa 10 mins

Conclusions

In strategic terms relating to the minimum distance to reach the trunk road network the Bescot Yard site is better located than the alternative sites.

All three sites have potential local road issues relating to issues such as access point suitability, possible bridge constraints, on-street parking and residential areas. It is recommended that these local access issues (rather than the strategic locational issues identified in this overview note) are considered in more detail as they may affect deliverability of one or more options at the local rather than strategic level.


In terms of access options to Bescot Yard, Options 2a and 2b would be cheaper than Option 1 however the distance to the trunk road is further away increasing operating costs and impact on residential communities through additional HGV movements (local congestion, noise, air pollution) . Both Options 1 and 2a require further investigation on the feasibility of bridges and Option 1 and 2b may require third-party land agreements. However overall Option 1 is the preferred option.




Appendix H

Environmental Checklist

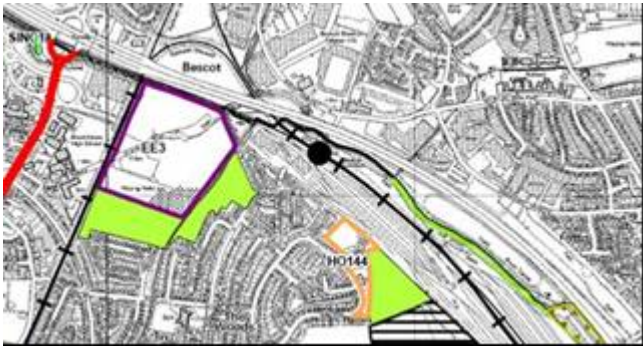
Appendix H Environmental Checklist

BESCOT YARD SITE			<i>COMMENT/ACTION REQUIRED</i>
1. DESIGNATIONS			
a) Are there any statutory designated areas in the vicinity of the site (e.g. SSSI, SAC, NNR, LNR, AONB etc.)? <i>When judging 'vicinity' it is important to consider factors such as the level of protection afforded the protected area, as well as its sensitivity and/or vulnerability. For example a major proposal involving the potential release and subsequent transfer of pollutants into a protected area via a network of watercourses will require the assessor to consider protected areas a considerable distance (e.g. 2km) from the site.</i>			There are no SSSI, SAC, SPA, NNR, LNR or AONBs within or adjacent to the site or the proposed access routes. Furthermore there are no such statutory designations within 2km of the site.
b) Does the site sit within a conservation area (as designated by Local Authority)?			<p>The site has not been identified as within a Conservation Area.</p> <p>Sandwell MBC has identified an area of land directly south of the site as a SLINC (Site of Local Importance for Nature Conservation).</p> 
c) Are there any trees subject to an individual or group Tree Preservation Order which may be affected by the works? (Also consider potential physical damage to tree and/or tree root protection areas as well as removal or pruning).			Considered highly unlikely but no definitive information in this respect to confirm whether there are any protected trees in the vicinity of the proposed access routes.
2. PLANNING			
a) Will the scheme require a planning application (if the works will be carried out under permitted development please answer 'NO')?			Yes.
3. NOISE			
a) Are there likely to be noise (or vibration) levels associated with activities on the site which would adversely impact the surrounding land-users (residential, institutional, industrial or commercial)?			<p>Noise and vibration levels are likely to increase due to the nature of the scheme, however given the relationship of the site with the M6 motorway directly north and the presence of the existing railway line, the increase in noise/vibrations is likely to have a negligible impact on surrounding land users.</p> <p>Furthermore noise mitigation measures could be incorporated to minimise noise disturbances to 'The Woods' residential area.</p>

BESCOT YARD SITE			<i>COMMENT/ACTION REQUIRED</i>
4. LOCAL AIR QUALITY			
a) Are there likely to be significant sources of emissions to the atmosphere associated with the proposed activities or any generation of odour/dust which could be detected off-site?			The proposed scheme has the potential to increase emissions into the atmosphere, however these are not deemed to be of a significant level. Furthermore the use of electrification at this site would reduce the level of emissions released as a result of the scheme. No adverse generations of odour or dust are anticipated off-site.
b) Is the proposal in the vicinity of an AQMA?			The entire Metropolitan Borough of Sandwell has been declared an Air Quality Management Area.
5. LANDSCAPE/TOWNSCAPE			
a) Are there likely to be significant alterations to the landscape and visual character of the site and its surrounding area?			There are unlikely to be any adverse alterations to the landscape and visual character of the site and its surroundings given the site's existing (and historic) use. The scheme will incorporate areas of warehousing and paving however this will not be out of character with the site and surrounding area.
b) Is development of the site likely to lead to changes in artificial lighting which might change the character of the site or surrounding area at night?			No significant increase in lighting is proposed.
6. HERITAGE OF HISTORIC RESOURCES			
a) Are there any objects of historical, archaeological scientific or cultural importance on or near the site which might be affected by the proposed development of the site?			<p>No scheduled monuments of objects of historical, archaeological, scientific or cultural importance have been identified on the site or surrounding area.</p> <p>The area of land south east of the site, along Sandy Lane is however identified by Sandwell MBC as an 'Area of Potential Archaeological Importance'.</p>  <p>(Indicated by the brown line with arrows pointing away from the site).</p> <p>Access arrangements will therefore need to give due regard to this issue if any works are proposed in this area.</p>
b) Are there any Listed Buildings within or adjacent to the site that may be affected (physically or visually) by the works?			<p>There are no Listed Buildings within or adjacent to the site.</p> <p>The closest Listed Building is St Pauls Church located on Wood Green Road. This Listed Building will however not be affected by the proposed scheme.</p>
7. BIODIVERSITY			
a) Has the site been assessed by a qualified ecologist to determine its ecological potential?			To be undertaken in due course.
b) Will it be necessary to cut back or remove vegetation (e.g. trees, scrub, shrubs, grass etc.) from the site, or is any physical damage to tree and/or tree root protection areas likely to occur?			No significant vegetation removal is anticipated. Access arrangements are still to be confirmed.

BESCOT YARD SITE			COMMENT/ACTION REQUIRED
c) Will any buildings, structures and/or watercourses be impacted or affected by the proposals? (If 'YES' their potential as habitat for protected species should be checked by an ecologist)?			The River Tame runs around the western and northern boundary of the site, however it is considered that the majority of the works on the site could be undertaken without impacting on this river. Should an access route be created into the north-west of the site, a crossing point will need to be developed to facilitate access over this river. Any such access route to the north-west would also need to be carefully designED so as to have minimal impacts on the existing buildings and structures to the west (including the local school and railway line).
8. WATER ENVIRONMENT			
<i>1. Surface Waters</i>			
a) Are there any surface water bodies on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)?			The River Tame runs around the western and northern boundary of the site.
b) Will the project require any work in or adjacent to (say within 100m) of the described waters?			A crossing over this river may be required to facilitate future access.
c) Will site drainage (including temporary drains) create a preferential pathway to surface waters?			TBC
d) Will fill and dredge material be placed in or removed from surface water or wetlands?			No
e) Will the proposal require surface water withdrawals or diversions or use of dewatering or coffer dams?			Considered unlikely - TBC
f) Does the proposal lie within an Environment Agency defined Flood Zone (as specified on EA Flood Maps)?			Yes
g) Does the proposal involve or pose a risk of any discharges of waste materials to surface waters?			No such risks are anticipated however with suitable working methodologies and mitigation measures implemented the risk of discharges are further minimised.
h) Will the proposal involve storage of hazardous materials, contaminated materials and or fuels, even if only temporarily?			The scheme by its nature is likely to incorporate the storage of fuels onsite, even if only temporarily.
<i>2. Ground Water</i>			
a) Will ground water be withdrawn, or will water be discharged to ground water?			No

BESCOT YARD SITE			COMMENT/ACTION REQUIRED
b) Could the proposed project create a pathway to groundwater through previously impermeable materials (e.g. piles through clay)?			It is considered unlikely.
<i>(If the answer is No to either of the above, move to Water Runoff section)</i>			
c) Are there any Environment Agency Groundwater Source Protection Zone aquifers within the site?			The site is not within a Groundwater Source Protection Zone, however part of the site falls within a Groundwater Vulnerability Zone – Minor Aquifer High.
3. Water Runoff			
a) Is there likely to be runoff, including storm water from the proposed development?			There is potential for an increase in runoff rates given that the proposal is likely to incorporate additional paved/concrete areas and structures (warehousing).
b) Is the runoff likely to become contaminated by substances it encounters on site?			It is considered unlikely providing suitable working methodologies and mitigation measures are implemented.
c) Are significant changes to the total area of impervious surfaces envisaged?			Yes, however appropriate sustainable drainage strategies will be incorporated into the scheme - TBC
9. CONTAMINATED LAND			
a) Is there evidence or suspicion that there are contaminated/polluted soils on site?			Given the site's current and former use there is potential for existing soil contamination onsite.
b) Is there likely to be a risk of proposed activities on site leading to soil contamination either during construction or operation?			The scheme has the potential to result in further accidental soil contamination incidents however this is unlikely to result in any overall significant adverse implications given the existing soil conditions, which will be improved as a result of the remediation works associated with the scheme. Nonetheless appropriate Pollution Prevention Guidelines should be followed to minimise such contamination risks.
10. WASTE AND MATERIALS USAGE			
a) Does the project require a Site Waste Management Plan? (SWMP's are legally required in England for all construction projects begun after 6th April 2008, worth over £300k)			Yes
b) Are there opportunities to minimise waste arisings through recycling or re-use on site/elsewhere?			Yes materials removed should be reused where suitable to minimise the volume of waste leaving the site.
c) Are there opportunities to specify secondary or recycled materials in place of virgin materials?			Potentially yes – TBC
d) Do waste handling activities on site require an environmental permit or a waste exemption?			Potentially yes – TBC

BESCOT YARD SITE		COMMENT/ACTION REQUIRED
11. OTHER		
<i>Traffic</i>		
a) Are proposals for construction or operation likely to lead to significant increases in traffic (relative to the volume and nature of existing traffic and the road capacity)?		Likely levels of HGV movements not overly significant (130 per day) and will not be concentrated in the peak periods. So no significant increases in traffic on the local roads are anticipated however there will be a slight increase in vehicles on M6 Junction 9 and onto new access road off A461.
b) Are proposed activities likely to lead to significant disruption to existing transport networks (delays/diversions/closures)?		No adverse impacts on the local transport network are anticipated.
<i>Community/Severance</i>		
a) Would the proposed development physically divide an already established community?		No
b) Is development of the site likely to restrict or prohibit existing or potential recreational activities or amenity value on or near the site?		No significant recreation/amenity impacts are anticipated however it should be noted that there is a footpath running along the western section of the River Tame, around to St Paul's Road towards Wood Green High School, which may be temporarily affected by a proposed access route through this area.
ADDITIONAL INFORMATION	<p>Land to the west within which the access route will pass has been identified by Sandwell MBC for 'Industrial Proposals' (EE3).</p> 	
	<p>To confirm the relationship of the Green belt with the site's boundary once refined (indicated by the green line in above image – TBC).</p>	
<p>The list of questions on this checklist should be used to help determine whether there are significant environmental aspects to the project. When judging whether an aspect is significant or not it is important to keep in mind whether the scope of activities for which Halcrow is responsible can result in decisions which affect that aspect.</p> <p><i>Significant issues which would generally indicate a need for additional diligence in considering environmental issues and where failure to do so could result in legal liabilities include:</i></p> <ul style="list-style-type: none"> • Sites which are designated under the "Habitats" or "Birds" directives, are SSSIs or other designated sites of conservation interest • Sites which are subject to water discharge or abstraction consents • Sites currently under regulation under IPPC, waste licensing or local authority environmental permits • Where there is likely to be work directly in a watercourse or where temporary works are likely to include diversion of existing watercourses. 		



Appendix I

High Level WEBS Analysis

Appendix I High Level WEBS Analysis

SUMMARY OF TRENDS

Introduction

This section presents the findings of a baseline review of the rail freight sector and the wider freight sector at both the national and regional levels. The performance of these sectors can be measured according to the following indicators:

- Freight movements;
- Number of jobs within the sectors;
- Number of businesses within the sectors;
- Contribution of the sectors to national and regional outputs / GVA.

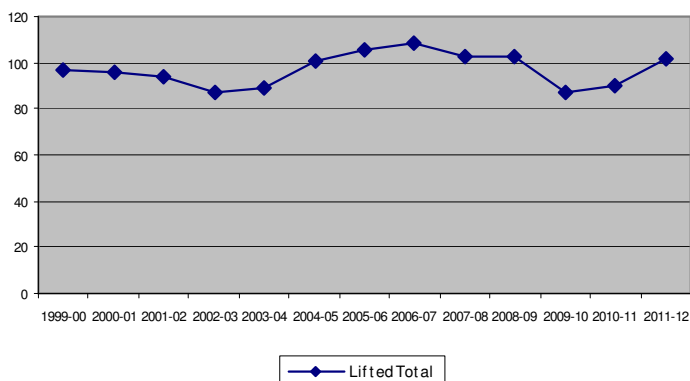
These indicators will provide data that will be used to develop the bespoke benchmark values, which can be applied to the development proposals to estimate the wider economic benefits associated with the scheme. These bespoke benchmark indicators include:

- Volume of freight per full-time equivalent employee;
- Output per full-time equivalent employee;
- Average size of business (in terms of full-time equivalent employees).

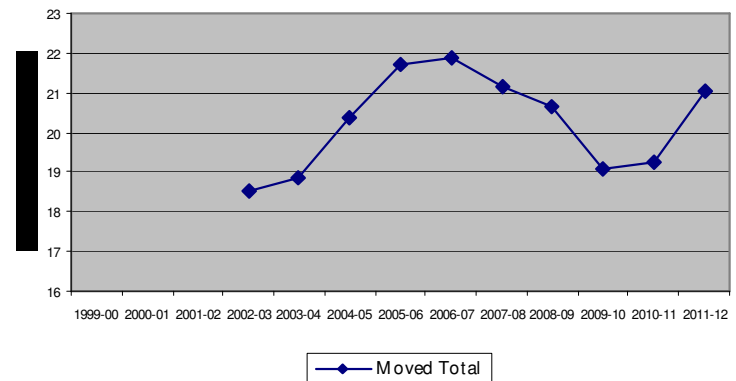
Freight Lifted/Moved

The Office for Rail Regulation (ORR) collects data relating to the quantity of rail freight lifted and moved. Freight lifted measures the amount of goods carried on the network, whilst freight moved also calculates the distances that these goods moves. The graphs display recent national trends in freight lifted and freight moved.

Lifted Total



Moved Total



(Source: Network Rail, ORR, 2012)

The data indicates that at the national level, the quantity of rail freight lifted has fluctuated around a stable 100 million tonnes per annum since 1999-00. Since 2008-09 there has a marked dip in the amount of rail freight lifted, although the latest data for 2011-12 suggests the total is approaching pre-2008-09 levels again:

Year	Freight Sector	
	Wider	Rail
2006	2,294	108
2007	2,327	102
2008	2,173	102
2009	1,832	87
2010	-	90
2011	-	102

NB: Freight lifted in millions of tonnes

These trends are mirrored for the quantity of rail freight moved, albeit the fluctuations around a mean of 20 billion tonne kilometres are more noticeable. The table below presents annual rail freight movements since 2006-7:

Year	Freight Sector	
	Wider	Rail
2006-07	248	22
2007-08	251	21
2008-09	238	21
2009-10	215	19
2010-11	-	19
2011-12	-	21

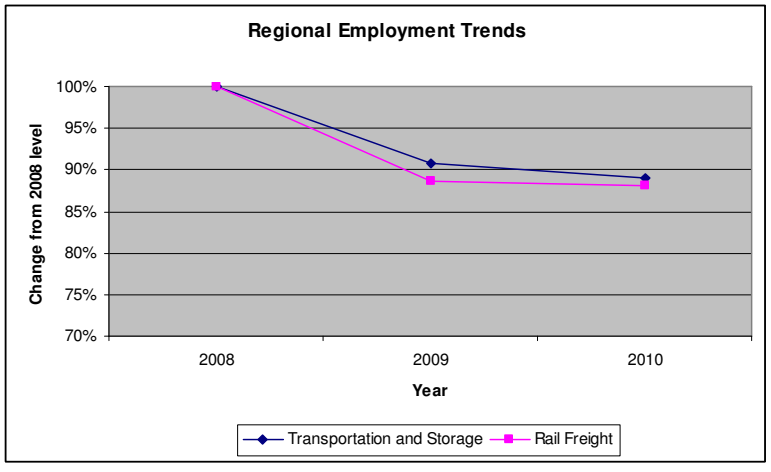
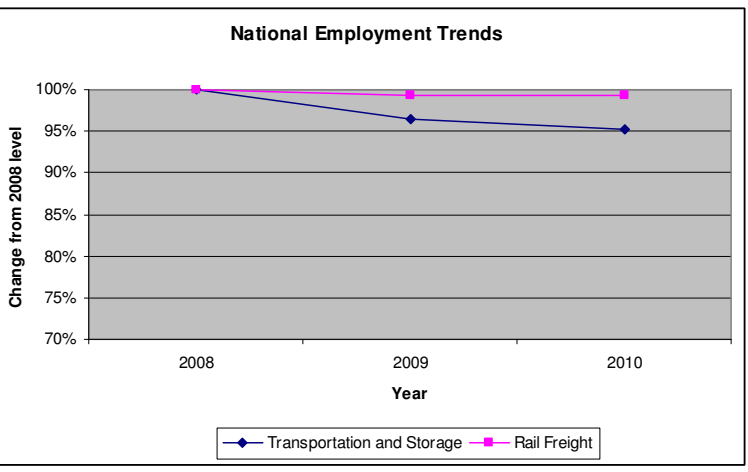
NB: Freight Movements in billion tonne kilometres

The tables above also outline the volume of freight lifted and moved by the wider freight sector. The Department for Transport (DfT) collects data relating to the quantity of freight lifted and moved, by each mode individually and in total. However, the time-series only continues to 2009. The data indicates that in 2009, 1,832 million tonnes of freight were lifted and 215 billion net tonne kilometres of freight were moved by all modes.

Due to data limitations, there is no equivalent data at regional or sub-regional levels/

Employment

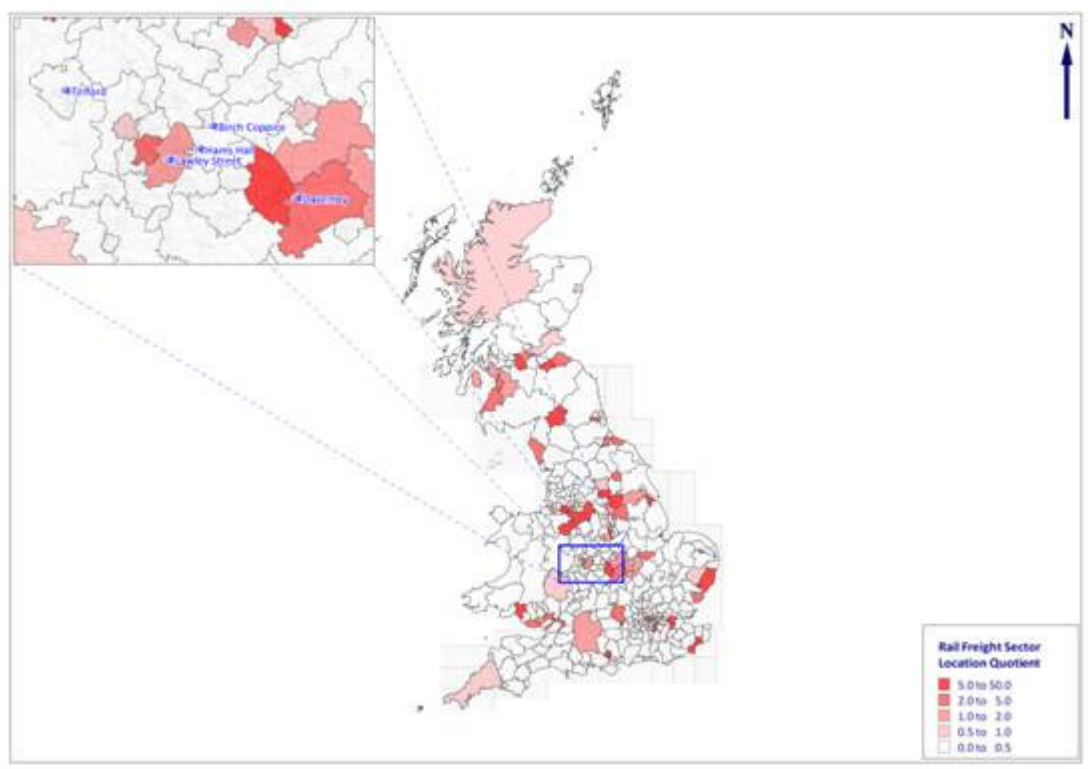
The national trends for the quantity of rail freight lifted/moved correlate with employment trends in the rail freight sector at a national level. A time-series from 2008 to 2010 suggests that the number of people employed in rail freight sector has remained stable at around 5,400. In comparison, the number of people employed in the wider freight sector has declined by some 5% over the same period, suggesting that the rail freight sector has greater resilience to the recession and economic downturn.



At a regional level, the rail freight sector in the West Midlands has shown less resilience to the economic downturn, as a 12% decline in employment between 2008 and 2010 approximates the decline shown for the wider freight sector. The total numbers of employees in the rail freight and wider freight sectors, at national and regional level are displayed in the table overleaf:

	National Sector		Regional Sector	
	Wider	Rail	Wider	Rail
2008	1,109,002	5,425	119,412	376
2009	1,069,393	5,390	108,414	333
2010	1,056,052	5,382	106,336	331

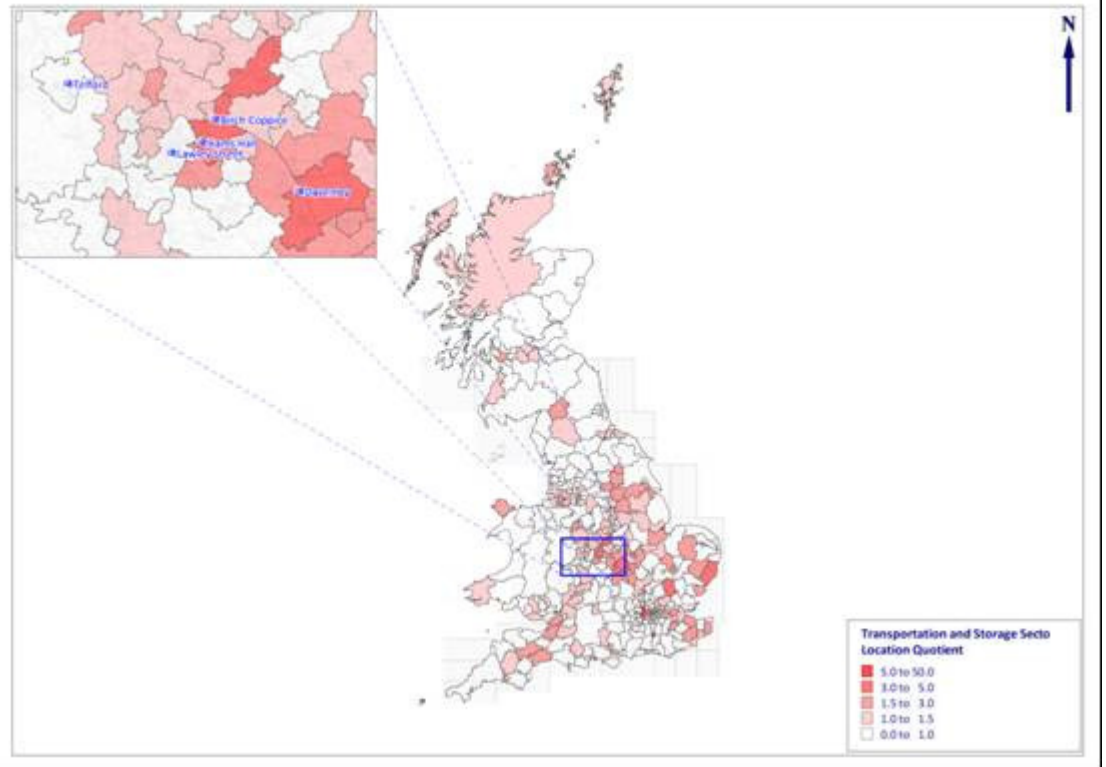
It should also be noted that the proportion of wider freight sector workers employed in the rail freight sector is lower in the West Midlands (0.3%) compared to the national average (0.5%). Therefore rail freight sector employees are under-represented in the wider freight sector at a regional level. However, there are concentrations of rail freight employees within local authorities in the West Midlands and surrounding areas. Business Register and Employment Survey (BRES) indicates that in 2010 Birmingham (126 employees) and Sandwell (123) were ranked 14th and 15th nationally for rail freight sector employees. Wolverhampton (13) and Daventry (24) also had small number of rail freight sector employees. These findings are reflected in the local authority-level location quotients depicted in the figure below.



(Source: BRES, 2010; NOMIS, 2012)

Using the wider 'Transportation and Storage' sector as a proxy for the wider freight sector highlights the importance of this sector to the economy of the West Midlands and its surrounding areas. North Warwickshire (21%),

Daventry (16%), Sandwell (6%) and Walsall (5%) all have a higher proportion of workers employed in the 'Transportation and Storage' sector compared to the national average (4.6%). In total, this equates to more than 100,000 employees in the West Midlands. These findings are reflected in the local authority-level location quotients depicted in the figure below.



(Source: BRES, 2010; NOMIS, 2012)

The contrasting location quotients for rail freight and wider freight employment re-emphasise the under-representation of rail freight employment within the West Midlands.

Businesses

The latest available data for the number of businesses within the wider freight and rail freight sectors is available from the Annual Business Inquiry (ABI), for 2007 and 2008. The table below outlines the number of businesses associated with each sector, at the regional and national level:

	National Sector		Regional Sector	
	Wider	Rail	Wider	Rail
2007	72,761	61	8,019	6
2008	74,063	84	8,387	8

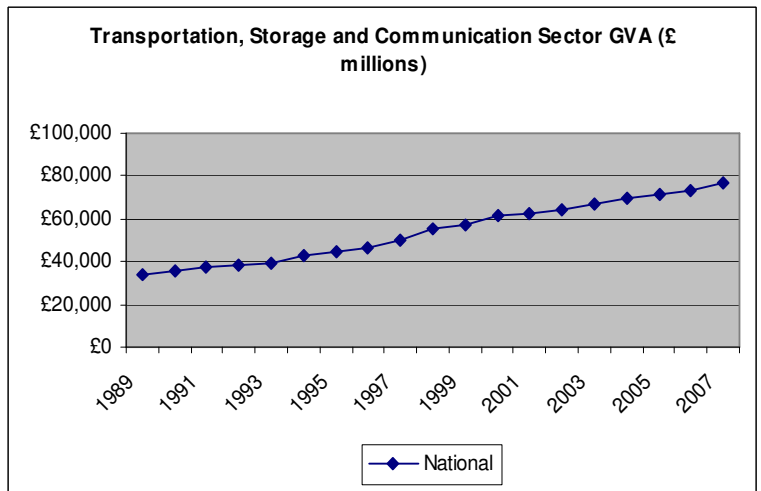
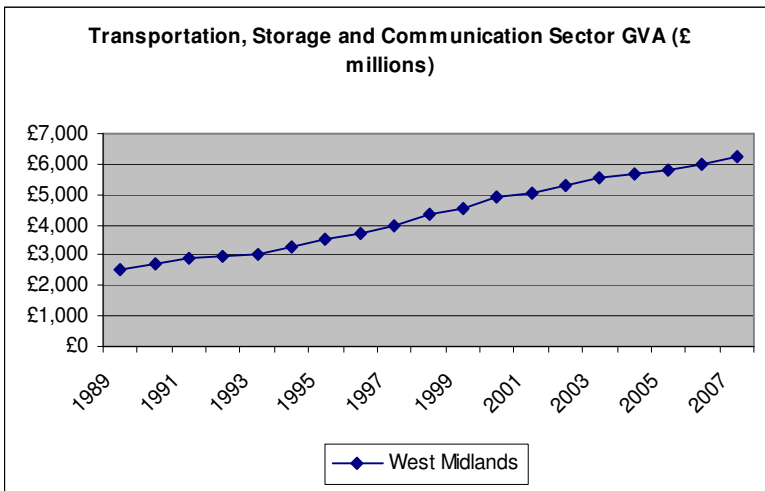
The business data indicates that a very small proportion of wider freight sector businesses are classified within the rail freight sector, at both the national and regional level. Nevertheless, the data also reiterates the under-representation of the rail freight sector within the West Midlands region, as the proportion of national wider freight sector businesses located in the West Midlands (c. 11.5%) is above the rail freight sector equivalent (c.9.5%).

Productivity

The importance of the rail freight sector to the economy is further emphasised by output estimates listed in the 'Value and Importance of Rail Freight' report, which at a national level lists direct annual output at £870m , indirect output at £3.8bn and induced output at £5.9bn. National and Regional output estimates (in the form of GVA) for the wider freight sector are available up to 2007 from ONS. The data indicates that as of 2007, the sector contributed £76.4bn nationally.

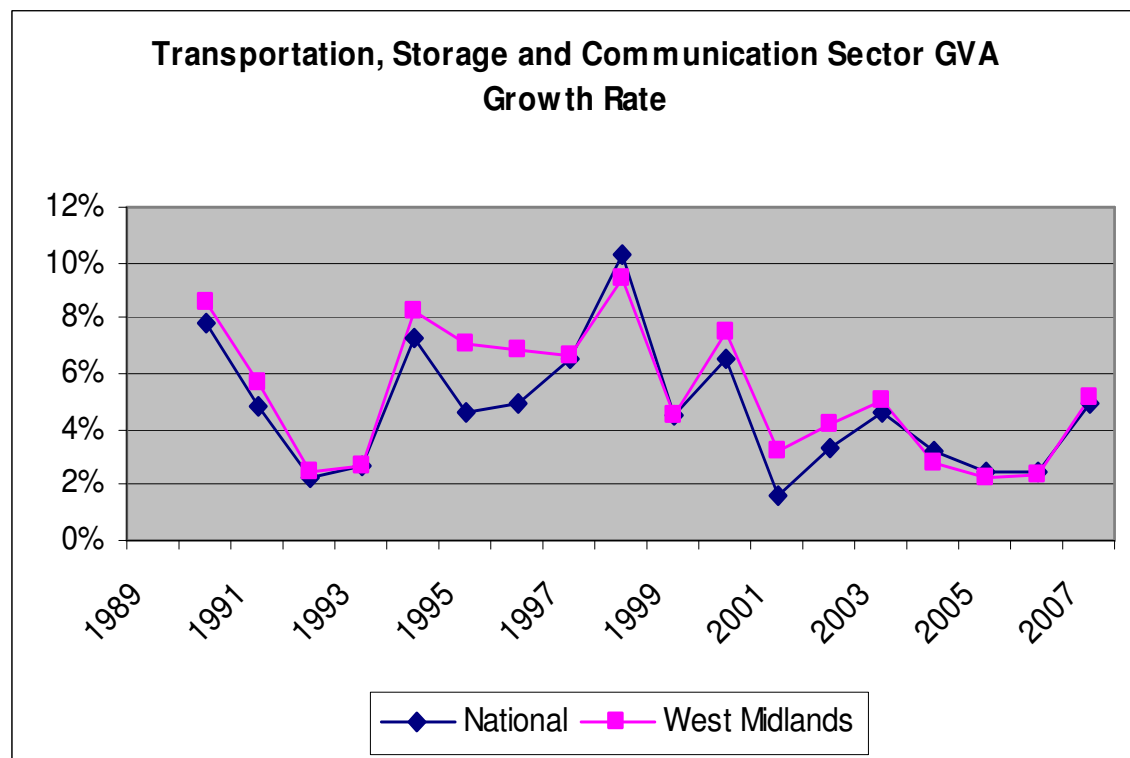
Further, the data indicates that the two key demand generating sectors of the economy contributed more than £21bn to the West Midlands economy, representing almost one-quarter of total productivity. Employment data for these sectors in 2007 is also provided in the table below for direct comparison purposes.

Sectors	GVA in £million	Employment
Manufacturing	14,790	329,969
Transport and Storage	6,269	131,995
Other	70,668	1,883,639
Total	91,727	2,345,603



(Source: GVA Workplace Headline, 1989-2007; ONS, 2012)

The graphs above indicate that between 1989 and 2007, GVA in the wider freight sector has increased consistently. This is despite the fact that both the amount of freight lifted/moved has fluctuated at a stable level since 2000. Therefore, output has increased despite no discernible increase in the volume and/or distance of freight movements. The data also indicates that over the period, the growth rate in GVA for the wider freight sector has generally been higher for the West Midlands region compared to the national average:



(Source: GVA Workplace Headline, 1989-2007; ONS, 2012)

With specific reference to the rail freight sector, Network Rail's 2010 'Value and Importance of Rail Freight' report, estimates national direct annual output at £870m, indirect output at £3.8bn and induced output at £5.9bn. In the

absence of equivalent regional level estimates, data for the wider freight sector has been used as a proxy to assess the value of the rail freight sector in the West Midlands. The available data suggests that the West Midlands contributes 8% of the total GVA associated the wider freight sector at a national level. Applying this proportion to the national rail freight sector output (£870m), the output of the rail freight sector in the West Midlands is estimated at some £71m. The GVA estimates for both sectors, at the national and regional level are presented in the table below.

	Wider Freight (£ millions)	Rail Freight (£millions)
National	£76,424	£870
Regional	£6,269	£71

Summary

The data presented above suggests that the rail freight sector is under-represented in the West Midlands compared to the wider freight sector, particularly in relation to the number of employees and businesses located in the region. However, the value and importance of both the rail and wider freight sector at the national and regional level is summarised by the following comparison table:

National Scale			
Indicators	Wider Freight	Rail Freight	Rail Freight %
Freight Lifted (2010, million tonnes)	1,832	87	4.7%
Employees (2010)	1,056,052	5,382	0.5%
Businesses (2008)	74,063	84	0.1%
Output (2007, GVA £millions)	£76,424	£870	1.1%
Regional Scale			
Indicators	Wider Freight	Rail Freight	Rail Freight %
Freight Moved (2010, billion net tonnes km)	-	-	-

Employees (2010)	106,336	331	0.3%
Businesses (2008)	8,387	8	0.1%
Output (2007, GVA £millions)	£6,269	£71	1.1%

The data presented in the table above have been used to develop four key benchmark indicators:

- Rail freight movements constitute 4.7% of all freight movements;
- Freight lifted by rail is equivalent to 16,165 tonnes per employee – significantly above the 1,735 tonnes per employee for all modes;
- GVA per employee is £160,369 for the rail freight sector;
- GVA per employee is £43,278 for all sectors in the West Midlands.

The derived benchmark indicators will be used going forward to assess the potential wider economic benefits of the development scheme.

Employment Benchmark Case Studies

There are a number of Intermodal Rail Freight Terminals already operational in and around the West Midlands metropolitan area. The following three sites have been used as comparator sites, in order to generate benchmark values that can inform potential economic impacts of the proposed rail freight terminal:

- DIRFT, Daventry
- Lawley Street/Landor Street, Birmingham
- Hams Hall, Coleshill

Specifically, the case studies will focus on generating employment benchmarks which can later be used to inform possible employment impacts of the proposed terminal.

Scheme: Daventry Intermodal Rail Freight Terminal 1 (DIRFT 1)

Employment

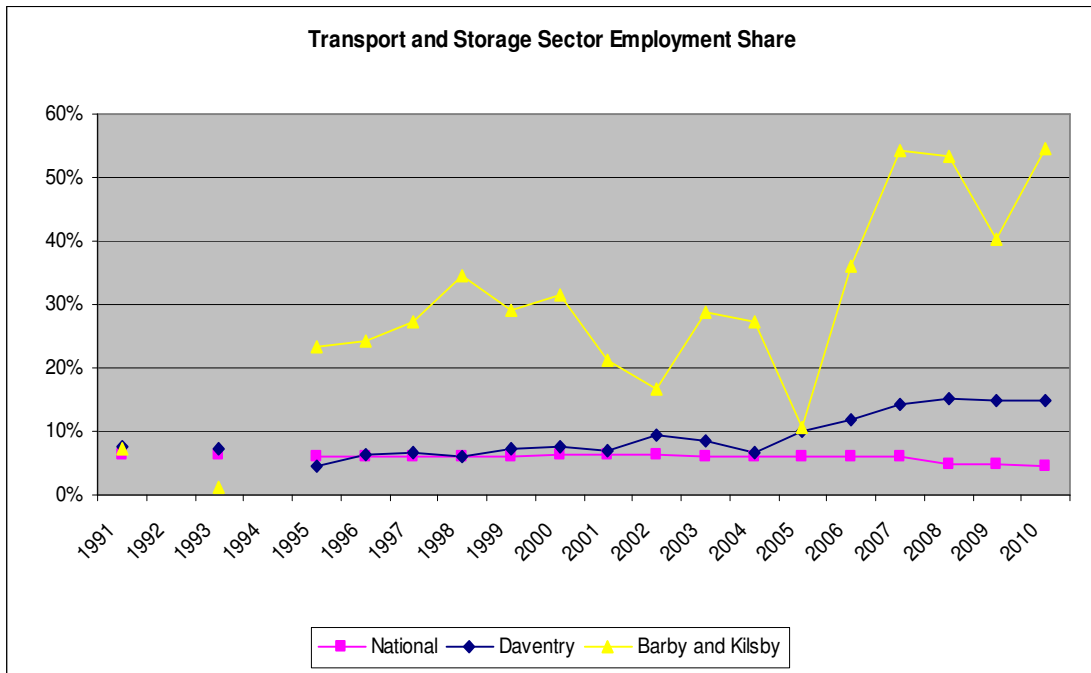
DIRFT falls within the following LSOAs: E01026994, E01027006. Employment in these LSOAs across the Transport and Storage, Manufacturing and Other sectors is shown below:

Sector	E01026994	E01027006	Total
Transport and Storage	1,741	1,574	3,315
Proportion	92%	37%	54%
Manufacturing	14	394	408
Proportion	1%	9%	7%
Other	128	2,262	2,390
Proportion	7%	53%	39%

Source: BRES (2010)

Across the two DIRFT LSOAs, more than 50% of employees work in the Transport and Storage sector. Within this broad sector, 16% are employed in Freight Transport by Road (SIC 49.41), whilst 0.4% are employed specifically in Freight Rail Transport (SIC 49.20). A further 7% of employees work in the Manufacturing sector; a sector which is particularly likely to utilise rail freight.

Historical trends further emphasise the importance of DIRFT to the local economy. Using the Barby and Kilsby ward as a proxy, 191 employees were working in the Transport and Storage sector in 1996 prior to the opening of DIRFT. By 2003, the number of employees had trebled to 631; by 2006 the figure increased to more than 1,000 and by 2010, the number of employees was around 1,750. Similarly, there has been a proportional increase in the number of employees working in the Transport and Storage sector since before DIRFT was completed, particularly compared to national and local authority comparators:



Employment Benchmarks

An estimated 20 trains use the terminal each day. Given that each train typically carries 60 TEUs of freight, the facility receives 438,000 TEUs per year. This translates to more than 3.6m tonnes of freight lifted per year. Based on the aforementioned national benchmark figure of 16,165 tonnes of freight lifted per FTE, total on-site employment is estimated at 224.

The rail freight terminal also supports employment across the wider DIRFT development which is estimated at 120ha in size. Using LSOA data as a proxy, the BRES data presented in the Table above implies that across DIRFT there are more than 6,000 people employed, with almost 3,500 employed in the Transport and Storage sector, almost 500 in the Manufacturing sector and almost 2,500 in Other sectors. By applying the size of the wider site area to these employment figures, it can be inferred that the rail freight terminal supports some 50.9 employees per hectare overall, as shown in the table below:

Sector	Jobs per Ha
Transport and Storage	27.6
Manufacturing	3.4
Other	19.9
Total	50.9

Further, the data indicates that the ratio of on-site (224) to off-site (6,113) workers supported by the freight facility is 1:27.

Scheme: Landor Street/Lawley Street Freightliner Terminal, Birmingham

Employment

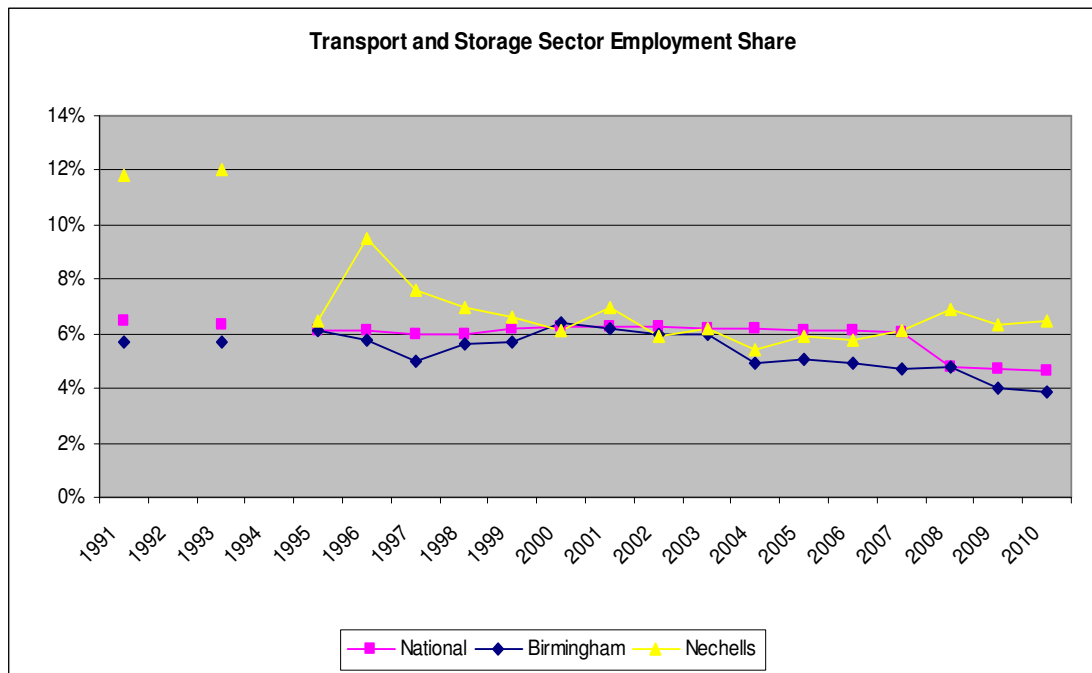
The Landor Street/Lawley Street Freightliner Terminal in Birmingham falls within a single LSOA: E01009204. Employment in this LSOA is presented below, split across the Transport and Storage, Manufacturing and Other sectors.

Sector	E01009204
Transport and Storage	295
Proportion	18%
Manufacturing	368
Proportion	22%
Other	1,006
Proportion	60%

Source: BRES (2010)

Within this LSOA, 40% of all employees work in the two sectors that benefit most from proximity to a rail freight terminal: Transport and Storage and Manufacturing. Within the broad Transport and Storage sector, the two largest subsectors are Freight Transport by Road (SIC 49.41) and Freight Rail Transport (SIC 49.20), which support 7% and 5% of overall employment in the LSOA.

Historical trends further emphasise the importance of the Landor Street/Lawley Street Freightliner Terminal to the local economy. Using the Nechells ward as a proxy, although the proportion of employees in the Transport and Storage sector has declined from around 12% in the early 1990s to below 7% in 2010, the employment share for the sector is still approximately 2 percentage points above regional and national comparators. With almost 2,500 people employed in the Transport and Storage sector, the sector is still over-represented in Nechells ward around the rail freight terminal.



Employment Benchmarks:

Available data suggests that 16 trains visit the terminal each day. On the basis that each train contains 60 TEUs, the facility receives around 350,000 TEUs annually, equivalent to 2.9m tonnes of freight. Using the national benchmark figure of 16,125 tonnes of freight lifted per FTE, it is assumed that total on-site employment is in the region of 179.

The rail freight terminal also supports a wider concentration of related business units in proximity to the site. As the LSOA (E01009204) is primarily industrial and warehousing in nature, it has been used as a proxy for determining the level of employment in the wider area that is supported by the rail freight facility. The LSOA is around 77ha in size.

As highlighted in the table above, there are some 1,669 people employed in this LSOA. Of these employees, there are 295 in the Transport and Storage sector, more than 350 in the Manufacturing sector and a further 1,000 in Other sectors. By applying the size of the wider site area to these employment figures, it can be inferred that the rail freight terminal supports some 21.8 employees per hectare overall, as shown in the table below:

Sector	Jobs per Ha
Transport and Storage	3.9
Manufacturing	4.8
Other	13.1
Total	21.8

Further, given the number of on-site (179) and off-site (1,669) employees supported by the freight facility, the data indicates that the ratio between on-site and off-site employment is 1:9.3.

Scheme: Hams Hall Rail Freight Terminal, North Warwickshire

Employment

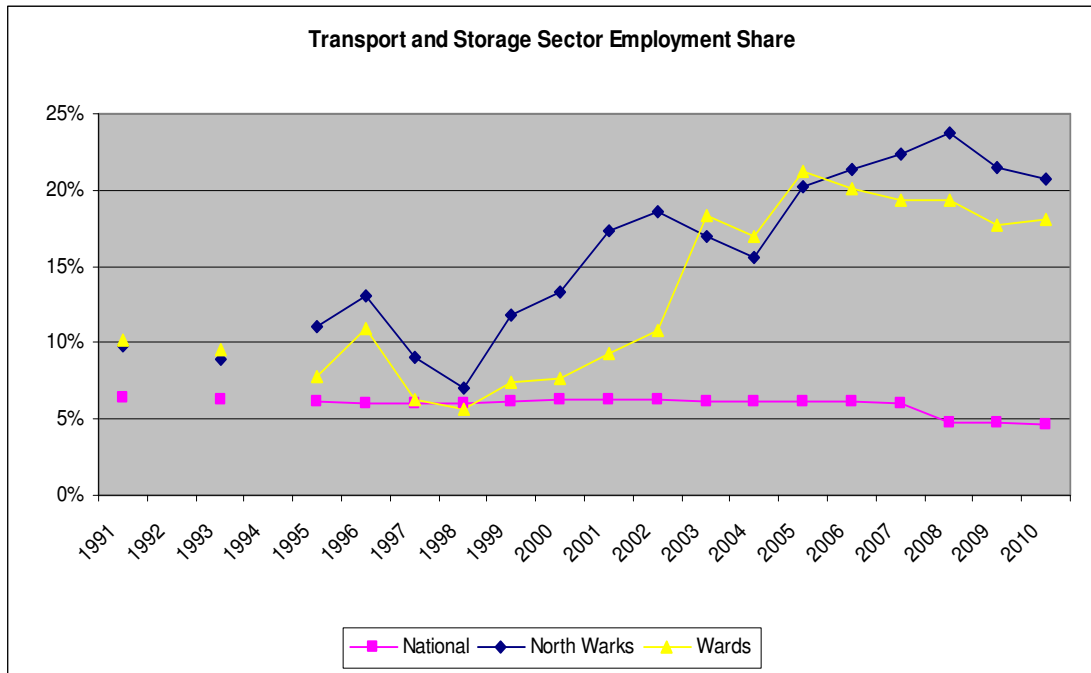
The Hams Hall Rail Freight Terminal falls across the following three LSOAs: E01031024, E01031020, and E01031028. Employment in these LSOAs across the Transport and Storage, Manufacturing and Other sectors is presented below:

Sector	E01031024	E01031020	E01031028	Total
Transport and Storage	2,764	509	75	3,348
Proportion	47%	13%	6%	31%
Manufacturing	857	1,160	45	2,062
Proportion	15%	30%	4%	19%
Other	2,287	2,195	1,034	5,516
Proportion	39%	57%	90%	50%

Source: BRES (2010)

Within these LSOAs, half of all employees work in the Transport and Storage and Manufacturing sectors, which are significant demand generators rail freight facilities. Across the wider Transport and Storage sector, three subdivisions dominate employment in the area: Warehousing and Storage (SIC 52.10), Other Postal and Courier Activities (SIC 53.20) and Freight Transport by Road (SIC 49.41). These subdivisions form 15%, 8% and 5% of overall employment in the LSOA respectively.

Historical trends further emphasise the importance of the Hams Hall Rail Freight Terminal to the local economy. Using local wards as a proxy, the proportion of employees in the Transport and Storage sector has trebled from 6% in 1997 up to 18% in 2010. This upward trend mirrors the performance of the sector at the local authority level, and is in stark contrast to the general decline for the sector experienced at the national level. Of particular interest, the upward trend in the Transport and Storage sector also coincides with the opening of the freight terminal in 1997.



Employment Benchmarks:

Data in the public domain indicates that the terminal is used by trains carrying 200,000 TEUs each year. This translates to 1.65m tonnes of freight lifted per year. Given the national benchmark figure of 16,125 tonnes of freight lifted per FTE, it is estimated that the facility supports approximately 102 workers on-site.

The rail freight terminal also supports the wider Hams Hall Distribution Park, which covers approximately 430ha. As highlighted in the table above, the 10,926 people are employed off-site, with almost 3,500 people employed in the Transport and Storage sector, more than 2,000 in the Manufacturing sector and a further 5,500 in Other sectors. By applying the size of the wider Hams Hall Distribution Park site area to these employment figures, it can be inferred that the rail freight terminal supports some 25.4 employees per hectare overall, as displayed in the table below:

Sector	Jobs per Ha
Transport and Storage	4.8
Manufacturing	7.8
Other	12.8
Total	25.4

Further, the data indicates that the ratio of on-site (102) to off-site (10,926) workers supported by the freight facility is 1:107.

Summary of Employment Benchmarks

The data presented in the above case studies indicate that rail freight terminals support employment both within the terminal itself and in wider off-site industrial / distribution parks associated with the facility. The table below summarises the number of jobs supported by rail freight terminals and provides a benchmark ratio for generating off-site employment based on on-site employment.

Terminal	On-Site Total Employment	Wider Off-Site Employment by Sector				Ratio of On-site to Off-site Employment
		Manufacturing	Transport and Storage	Other	Total	
DIRFT	224	408	3,315	2,390	6,113	27.3
Landor Street	179	368	295	1,006	1,669	9.3
Hams Hall	102	2,062	3,346	5,518	10,926	107.0
Benchmark Average (Discounting Hams Hall)						18.3

The benchmark ratio for off-site employment is 18.3 based on DIRFT and Landor Street. Hams Hall is discounted from the benchmarking exercise due to the size of development (430ha) and number of jobs (c.11,000) supported off site. It is anticipated that the proposed rail freight terminal will not support a wider area of this magnitude.

In addition, the above case studies provide an indication of the number of jobs per hectare supported off-site as displayed in the table below:

Terminal	Off-site Employment	Off-site area	Off-site FTE Jobs per ha
DIRFT	6,113	120	50.9
Landor Street	1,669	77	21.8
Hams Hall	10,926	430	25.4
Benchmark Average			32.72

The benchmark value of 32.72 FTE per ha can be applied to the total off-site employment established using the benchmark ratio above, in order to identify the off-site development impact of the proposed IRFT.



Appendix J

Cost Schedule (High Level)

2012 prices				
Cost Item	Unit	Unit Cost	Qty	Cost
Site Rail Works				
Site ground surface clearance	sq.m	£1.45	56,250	£81,813
Remove topsoil (150mm)	cu.m	£0.48	844	£409
Excav unacc'ptable mat'l(U2)	cu.m	£31.50	56,250	£1,771,875
Material disposal (U2)	cu.m	£73.69	56,250	£4,145,175
Excav unacc'ptable mat'l(U1)	cu.m	£31.50	56,250	£1,771,875
Material disposal (U1)	cu.m	£43.09	56,250	£2,423,925
Retaining wall (per 1m high)	m	£510	0	£0
Sound deadening fencing 6m high	m	£920	1000	£920,000
Palisade fencing, 2.4m high	m	£65	625	£40,625
Trim surface	sq.m	£0.42	37,688	£15,661
Place geotextile	sq.m	£3.42	56,250	£192,456
Geotextile and geogrid (if req)	sq.m	£6.54	56,250	£367,770
Build subgrade (400mm)	cu.m	£33.19	22,500	£746,760
Fill	cu.m	£31.22	112,500	£3,512,250
Plain line (single track)	m	£750	5,300	£3,975,000
Switch	each	£250,000	12	£3,000,000
Friction buffer stop with light	each	£15,700	4	£62,800
Move Lighting Masts	each	£0	1	£0
Bridge/flyover/viaduct	m	£4,968,000	1	£4,968,000
Access Road	m	£3,071,268	1	£3,491,126
Track lifting	m	£36	18,500	£666,000
Electrification removal	track-m	£150	9,500	£1,425,000
Electrification re-installation	track-m	£1,000	3,350	£3,350,000
Track/materials/access sub-total				£36,928,521
Project management	%age	n/a	15%	£5,476,299
Project design and dev	%age	n/a	15%	£5,476,299
Contingency allowance	%age	n/a	44%	£16,063,812
Subtotal Proj Mgt and Contingency				£27,016,411
Total Sidings Works				£63,944,932
Cost Item	Unit	Unit Cost	Option 1 Qty	Cost
Other Work				
Reloc main signal. o'lap, AWS	nr	£50,000	6	£300,000
Signalling panel alterations	item	£10,000	1	£10,000
New axle counter evaluator		£50,000	1	£50,000
New main signal	qty	£30,000	0	£0
Off indicator incl platform ctrl unit	qty	£10,000	0	£0
New axle counter section	qty	£11,000	8	£88,000
Wrk to exist axle count eval'rs		£10,000	12	£120,000
New 4 aspect signal head	nr	£8,000	0	£0
Signal post	nr	£20,000	0	£0
Signal post telephone	nr	£5,000	12	£60,000
TPWS TSS		£6,000	4	£24,000
TPWS TSS to signal	nr	£6,000	6	£36,000
TPWS buffer stop OSS		£7,500	4	£30,000
TPWS OSS		£7,500	6	£45,000
AWS to signal	nr	£4,200	12	£50,400
AWS		£4,200	12	£50,400
New location case	nr	£26,000	2	£52,000
Signal troughing route	m	£30	4000	£120,000
Power cable	m	£10	4000	£40,000
Signal cable	m	£5	4000	£20,000
Driver's walkway	m	£50	2000	£100,000
GPLS 4 aperture PL2R	nr	£4,700	12	£56,400
New signalling route over pts	nr	£26,000	6	£156,000
Train describer alterations	item	£500,000	1	£500,000
Interlocking and panel alts	nr	£150,000	1	£150,000
Signalling sub-total				£2,058,200
Project management	%age	n/a	15%	£308,730
Project design and dev	%age	n/a	15%	£308,730
Interfacing/commissioning	%age	n/a	15%	£308,730
NR costs	%age	n/a	15%	£308,730
Contingency allowance	%age	n/a	44%	£905,608
Subtotal Proj Mgt and Contingency				£2,140,528
Total				£4,198,728
Cost Item	Unit	Unit Cost	Option 1 Qty	Cost
Site: Terminal Area Infrastructure				
Buildings	No.	£90,000		£0
Paving	sq.m	£60.00	31250	£1,875,000
RTG trackway/running beams	m	£304	3000	£912,000
RTG access slab	sq.m	£152	625	£95,000
RTG	item	£700,000	0	£0
Reachstacker	item	£350,000	3	£1,050,000
Sidelifter (used)	item	£200,000	0	£0
Build subgrade to 1.405m	sq.m	£116.58	6205	£723,364
Total				£4,655,364
Project management	%age	n/a	15%	£698,305
Project design and dev'tment	%age	n/a	15%	£698,305
Contingency allowance	%age	n/a	44%	£2,048,360
Subtotal Proj Mgt and Contingency				£3,444,969
Total Crane/ Crane Infra Provision				£8,100,333
Capitall Cost Grand Total				£76,243,993

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