

**DEPARTMENT FOR TRANSPORT**

**3 January 2019**

**TRANSPORT AND WORKS ACT 1992**

**TRANSPORT AND WORKS (APPLICATIONS AND OBJECTIONS PROCEDURE)  
(ENGLAND AND WALES) RULES 2006**

**THE NETWORK RAIL (LONDON TO CORBY) (LAND ACQUISITION, LEVEL CROSSING  
AND BRIDGE WORKS) ORDER**

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**PROOF OF EVIDENCE**

**of**

**EDWARD AKERS**

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**DOCUMENT REFERENCE: NR70**

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**Glossary and List of Abbreviations**

BBC- Bedford Borough Council

CP- Control Period

CP5- Control Period 5

CP6- Control Period 6

DfT- Department for Transport

EDP- Enhancement Delivery Plan

GRIP- Governance for Rail Investment Projects

HLOS- The High-Level Output Statement issued by the Department for Transport

L2C- London to Corby Electrification and Capacity Upgrade Project

MMLP- Midland Main Line Programme

MMLe- Midland Main Line electrification

Network Rail- Network Rail Infrastructure Limited

Order- The Network Rail (London to Corby)(Land Acquisition, Level Crossings and Bridge Works) Order

PiXC- Passengers in Excess of Capacity

Secretary of State- Secretary of State for Transport

SMS- Safety Management System

TT- Timetable

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**1. INTRODUCTION**

1.1. My name is Edward Akers.

I am employed by Network Rail Infrastructure Limited as a Senior Sponsor with two and a half years' experience in the role. I have been employed by Network Rail in various other positions over the last 11 years. In my current role, I am accountable for delivery of benefits, corporate governance, stakeholder relationships, budget and requirements of the London to Corby Electrification & Capacity Upgrade Project (L2C).

1.2. My role involves leading a small team of Sponsors on the L2C project that lead the project teams through the lifecycle of the project. We also agree strategic purpose and direction of the project, determine the corporate risk appetite, act on behalf of the client (section 11.1 of this proof of evidence) and are overall ambassadors for the project.

1.3. The evidence I will provide concerns the strategic context to the L2C project and where it fits into the wider Midland Main Line Programme (MMLP). This includes the overall outputs and outcomes of the L2C project and the wider MMLP, the benefits expected to be taken and the strategic and economic business case for the overall programme.

**2. EVIDENCE SUMMARY**

2.1. This proof of evidence explains how the L2C project delivers the benefits of the Midland Mainline Programme, funding and programme governance.

2.2. In accordance with the Department for Transport guidelines for value for money the Midland Mainline Programme will represent very high value for money in two out of the three scenarios for timetable planning with the most pessimistic case of timetable planning still delivering medium value for money.

2.3. The DfT is the promoter and funder for the Midland Mainline Programme. The L2C project is a fully funded scheme with endorsement from the Secretary of State for Transport at the DfT.

2.4. It should be noted that post submission none of the objections relate to the benefits, business case or funding associated with the Midland Mainline Programme. There is support for the

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Order scheme from Secretary of State and the DfT and the Order scheme clearly delivers on the Government's aims to improve the Midland Mainline for passengers and freight.

### **3. SCOPE OF THE ORDER**

- 3.1. Whilst the Order supports a wide programme of electrification, by way of the MMLP, the scope of the Order is limited to those elements contained within it.
- 3.2. The L2C project team has successfully gained a range of different consents and agreements during the development of this Order. Negotiation with third parties commenced over four years ago when the L2C project was a set of standalone schemes (section 5.2 of this proof of evidence). The Order contains only key consents that remain necessary to deliver the L2C project, but which have not yet been secured by other means.
- 3.3. Without third party agreement and consents, or compulsory purchase powers, it is not possible for Network Rail to deliver the client's requirements.
- 3.4. As the Order process has progressed since application, negotiations have continued and have been successful in reducing the scope of the Order. In respect of land in plots 301 to 312, 401 to 406 and 701 to 719, land access has been agreed to avoid the need for compulsory powers in the Order.
- 3.5. Additional detailed consents are to be obtained by the L2C project which are not included in the Order. These consents will be sought through ongoing negotiation, separate applications and the use of Network Rail's statutory powers and rights. These additional consent requirements include complex heritage planning requirements or where agreement is anticipated through negotiation as a result of positive stakeholder feedback.

### **4. THE MIDLAND MAIN LINE PROGRAMME**

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- 4.1. The Midland Main Line runs from Sheffield in South Yorkshire, through the main urban conurbations of the East Midlands in Derby, Nottingham and Leicester and serving Northamptonshire and Bedfordshire into London St Pancras. This is shown in Figure 1.1.

**Figure 1.1 Feature map of the Midland Main Line**



- 4.2. For financial planning purposes, Network Rail works on the basis of five year timespans, each of which is known as a Control Period (CP). The High-Level Output

Statement (HLOS) for Control Period 5 (CP5) (**NR 14**), issued by the Department for Transport, which runs from 2014 to 2019, identified a number of key programmes and projects to efficiently meet forecasted demand growth and support economic growth. This included a series of projects designed to address the issues of capacity and journey times on the Midland Main Line (section 5.2 of this proof of evidence), which have been entitled together the MMLP.

- 4.3. The published HLOS detailed the Secretary of State's wish for the industry to develop and deliver within CP5 the major rail electrification and capability enhancement referred to as the 'Electric Spine', in order to increase regional and national connectivity and support economic development by creating a high-capability 25kV electrified passenger and freight route from the South Coast via Oxford and the Midlands to South Yorkshire (section 8.3 of this proof of evidence). Section 3.5 and 3.6 of the HLOS are specific to the electrification and gauge clearance requirements between Bedford to Sheffield. This requirement was then referenced in the Strategic Business Plan January 2013 (**NR 66**) and the Enhancement Delivery Plan (EDP) (**NR 26**) as 'Midland Main Line electrification' with a project reference code of ES001.
- 4.4. Whilst the electrification project (ES001) was initially 'paused' by the Secretary of State on the 25<sup>th</sup> June 2015, on the 29<sup>th</sup> September 2015 Sir Peter Hendy who had been appointed to undertake an affordability review on behalf of the Secretary of State, advised the then Secretary of State (Rt Hon Patrick McLoughlin MP) that the capacity and journey time improvement schemes had not been paused and advised that the first step was to electrify the line north of Bedford to Kettering and Corby.
- 4.5. The Single Departmental Plan from February 2016 (**NR 63**) confirmed the Department for Transport's intent to implement Sir Peter Hendy's proposals for delivering the rail enhancements programme which included the MMLP.
- 4.6. On the 20<sup>th</sup> July 2017 the Secretary of State (Chris Grayling MP) made a written statement which reconfirmed that the electrification of Bedford to Kettering and Corby was not cancelled, and that this scope remains a key element of the L2C project. It did

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remove the requirement to electrify between Kettering and Sheffield. The Secretary of State stated that passenger benefit could still be achieved through the procurement of bi-mode trains whilst saving significant public funds by not electrifying.

- 4.7. In December 2017, the DfT remitted Network Rail to design electrification from Kettering to Market Harborough to support the introduction of bi-mode trains.
- 4.8. The strategic aim of MMLP is to transform travel to and from London on the Midland Main Line during CP5 and CP6 and improve the links between the core centres of population and economic activity in the East Midlands and South Yorkshire.
- 4.9. The MMLP, when complete, will result in the following outcomes:
  1. Reduced journey times for passenger and freight trains
  2. Increased capacity of the infrastructure leading to more train paths being available
  3. Greater capacity on trains to cater for the projected increase in passenger numbers travelling on the route
  4. Greater capability on the route to handle longer passenger trains
  5. Improved gauge capability for large box container trains
  6. Reduced railway industry costs
  7. Reduced carbon emissions through the creation of an electrified route from London St Pancras to Corby
- 4.10. The MMLP is split into two Key Outputs: Key Output 1 (KO1) and Key Output 1a (KO1a). These key outputs are to deliver specific outputs and outcomes of the overall MMLP. KO1 houses the L2C project which is the focus of this proof of evidence and the Order, by May 2020 with a benefits realisation date of the December 2020 timetable change. KO1a is to be commissioned into use by December 2023 and is not the focus of this proof of evidence.



4.11. Network Rail has been tasked by the Department for Transport to deliver the following outputs that will enable the outcomes set out in 4.9:

1. To provide Overhead Line Electrification (OLE) at 25kV AC, so that Electric Trains can run from Bedford to Kettering and Corby. (There is currently no provision for electric trains).
2. To provide gauge clearance between Bedford and Kettering for loading gauges W6a, W7, W8, W9, W10 and W12 where not already cleared.
3. To carry out the infrastructure works required to enable an increase in capacity to a maximum of five train paths per hour in each direction between Kettering and Corby.
4. To carry out the infrastructure works required to enable an increase in capacity to a maximum of six passenger services and three freight services per hour in each direction between Bedford and Kettering. (Currently only five passenger services and two freight services are able to operate per hour).
5. To provide infrastructure to allow segregation of services through the station platforms at Derby Station and an increase in the line speed to 40mph for through services. The new track layout to the west of the station will remove the existing constraint at London Road Junction and facilitate parallel movements into and out of the station for trains arriving or heading out to the west and south.
6. To develop solutions to improve the passenger journey on the Midland Main Line by increasing the line speed at Market Harborough, Leicester Station and between Derby Station and Sheffield.
7. To improve infrastructure capability to enable the introduction of longer trains (up to 240m) on the Midland Main Line on selected services to accommodate the forecast levels of passenger growth specified in the HLOS and to reduce crowding on MML

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Long Distance High Speed (LDHS) services between London St. Pancras and Nottingham and Sheffield.

4.12. The outputs listed in 4.11 are intended to be delivered through the projects below:-

- London to Corby Electrification & Capacity Upgrade Project (the subject of this proof of evidence and the Order)
- Derby Station Re-Modelling
- Derby to Sheffield Line Speed Improvement Project
- Leicester Line Speed Improvement Project
- Market Harborough Line Speed Improvement Project
- Kettering to Corby Capacity Project

4.13. The outputs and outcomes of each project are mapped in the table shown in figure 1.2 using the outcomes and outputs listed in 4.9 and 4.10. It highlights the outcomes and outputs that are reliant on the L2C project which is the subject of this proof of evidence and the Order:

**Figure 1.2 - Table of MMLP Outputs and Outcomes by project**

<b>Project</b>	<b>Outcome (3.3.4)</b>	<b>Output (3.3.6)</b>
Derby North Journey Time Improvement	1	6
Derby Station Re-Modelling	1, 6	5
Leicester Line Speed Improvement	1	6
Market Harborough Line Speed Improvement	1, 4	6
Kettering to Corby Capacity	2	3
<b>London to Corby Electrification &amp; Capacity Upgrade</b>	<b>1, 2, 3, 4, 5, 6, 7</b>	<b>1, 2, 4, 7</b>

- 4.14. Figure 1.2 makes it clear that the L2C project is critical to the successful realisation of the outcomes that the MMLP is expected to deliver.

## **5. THE LONDON TO CORBY ELECTRIFICATION & CAPACITY PROJECT**

- 5.1. The L2C project was created in the Autumn of 2016 and is the amalgamation of four separate projects which will deliver a large scope of works as part of the MMLP. The L2C project was created after the pausing and subsequent reinstatement of the Midland Main Line Electrification Project, as part of Sir Peter Hendy's report on the re-planning of Network Rail's Investment Programme. After the 'pause' of electrification, several MMLP projects were due to be constructed in similar timescales, and whilst they could each deliver individually to their individual timescales, delivering them as separate projects in a non-integrated way was thought to be too great a risk to delivery to budget and to programme timescales. The L2C project sought to minimise risk on project delivery, through integration, by amalgamating the projects together, taking full advantage of efficiencies that can be created through amalgamation and integration, both in terms of design and construction.

- 5.2. The projects that were amalgamated to make the L2C project were:

- Midland Main Line Electrification (Bedford to Kettering/Corby scope only)
- Bedford to Kettering Capacity Project
- Kettering Electric Stabling Project
- Long Distance High Speed Platform Extension Project (Phase 1 scope only)

- 5.3. The L2C project will deliver the following scope that will allow the outputs and outcomes to be achieved:

- Additional capacity in the form of a new line and signals between Bedford & Kettering
- Electrification (Overhead Line) between Bedford, Kettering & Corby
- A stabling facility for electric trains at Kettering

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- The capability to run longer trains of up to 240m between London St Pancras, Kettering and Corby
- A route which is clear for loading gauge W12 from Bedford to Kettering and Corby
- Provision of axle weight clearances between Sharnbrook Junction and Kettering South Junction of Route Availability 10 at 60mph and Route Availability 8 at 90mph (permissible speed) on the new line.

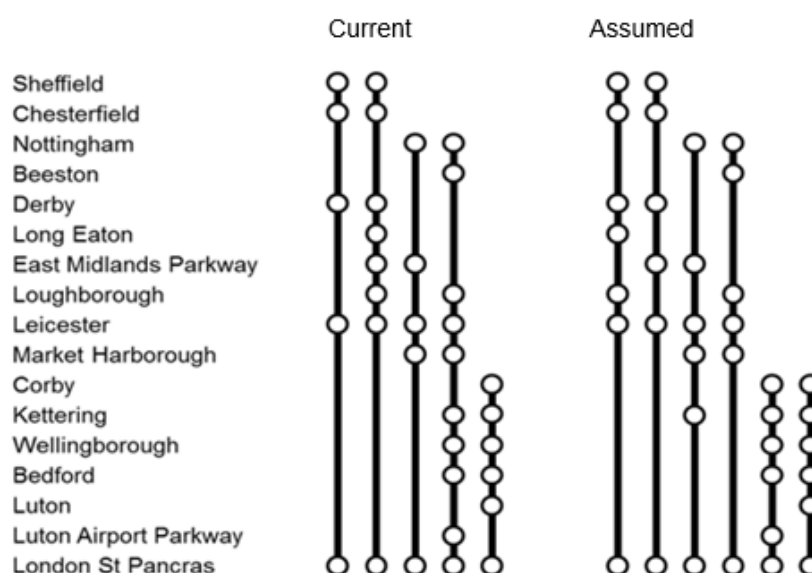
- 5.4. The introduction of a new line (a fourth line) between Bedford and Kettering will allow for an increase in capacity. The existing 3 lines have capacity for 5 passenger and 2 freight trains to be run in the standard hour. The new line will increase this to 6 passenger and 3 freight trains.
- 5.5. This increase in capacity will allow the East Midlands Franchisee to run a sixth train per hour to and from London in the standard hour with 2 trains to Corby, 2 to Nottingham and 2 to Sheffield. Currently East Midlands Trains run 5 trains in the standard hour with only 1 train to Corby, 2 to Nottingham and 2 to Sheffield. This existing service, with only 1 train from Corby, means that trains from Sheffield and Nottingham in the peak time have to stop at stations from Kettering into London so that, alongside the Corby service, there is enough capacity to take passengers to and from London. This slows down peak time services from the North into London significantly.
- 5.6. The increase in capacity will also give more opportunity for freight to run on the Midland Main Line between Bedford and Kettering. When combined with the increase in capacity created by the Kettering to Corby Capacity Project, freight now has a significant increase in capacity to be able to run on the Midland Main Line and utilise the route from Corby to Leicester via Oakham. This means that there is the ability to run more freight services (as noted at 5.4).
- 5.7. Creating a second service to Corby, as well as electrifying the line and making the two Corby services electric trains, will create more capacity. The electric trains will be

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longer and have more seats than existing diesel trains, meaning they can serve the stations between Corby and London in the peak times, coping with increasing capacity demands. Further, this will mean trains from the North in peak times will not need to call at stations between Kettering and London, giving greater capacity to deal with increasing passenger demands further north. Crucially this will also help decrease journey times by up to 20 minutes in the peak time by stopping at fewer stations.

- 5.8. The current and assumed journey pattern in the Midland Main Line Strategic Business Case is shown in figure 1.

**Figure 1.3 - Current and Assumed standard hour service pattern for the business case<sup>1</sup>**



- 5.9. Electrifying the line from Bedford to Kettering and Corby means the Midland Main Line will be electrified from London all the way to Kettering and Corby. This allows for

<sup>1</sup> Key Output 1 Midland Main Line Programme Strategic Business Case – Department for Transport

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electric rolling stock to be used on the London to Corby services instead of Diesel. The rolling stock that is to be used is not yet known, however with the timescales of December 2020 to run electric passenger services, it will almost certainly be 'cascaded' electric rolling stock from somewhere else on the network as new build rolling stock would not be delivered in time.

- 5.10. The electric rolling stock, in its maximum form, will be up to 240m in length. Platforms at Bedford, Kettering, Wellingborough and Corby are too short for 240m trains and are being extended as part of this project to enable these trains to be fully stationed in a platform.
- 5.11. The electric rolling stock will need to be stabled in between service, particularly through the night. At present, there is not enough capacity on the existing network to house all of the rolling stock, so a new stabling facility is being built at Kettering which will be capable of stabling four 240m trains.
- 5.12. The route will also be made clear for loading gauge W12, so the route will be available to run large box container freight trains between Bedford and Corby. This is an enabler to running large box containers from key ports such as Southampton onto the Midland Main Line.

## **6. THE BUSINESS CASE**

- 6.1 The last decade has seen a huge growth in rail use across the UK. Britain's railways play an essential role in supporting economic growth by enabling the safe, fast and efficient movement of passengers and goods into and between major economic centres and international gateways in an environmentally sustainable way. As a result of greater demand for rail travel, the national railway has seen a 59% increase in passenger numbers from 1.04 billion people in 2004/05 to 1.65 billion in 2014/15 (ORR rail usage statistics), as well as growth in freight usage.

- 6.2 Crowding on services into and out of London in the morning and evening peak is worse on East Midlands Trains long distance services, than on services run by other intercity operators in and out of London. Figure 1.4 shows Passengers in Excess of Capacity (PiCX) statistics from 2015.

**Figure 1.4 - Passengers in Excess of Capacity (PiCX) statistics from 2015<sup>2</sup>**

<i>Operator</i>	<i>Morning Peak</i>	<i>Evening Peak</i>
<b><i>Virgin Trains East Coast</i></b>	0%	0%
<b><i>Virgin Trains West Coast</i></b>	0%	0%
<b><i>East Midlands Trains</i></b>	10%	7%
<b><i>Great Western Railway</i></b>	9%	4%

- 6.3 The table shows that in 2015 that 10% of morning peak trains were in excess of capacity and 7% of evening trains. Further statistics from 2015 showed that during an average weekday in 2015, around 15% of intercity services using the Midland Main Line were crowded, with passengers standing as there was insufficient seating. About a third of all weekday services were found to have at least 80% of seated capacity in use.

- 6.4 Figure 1.5 shows Passengers in Excess of Capacity (PiXC) statistics from Autumn 2017. This shows that PiXC is a worsening trend on East Midlands Trains long distance services compared to 2015 figures shown in 1.2.

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<sup>2</sup> Key Output 1 Midland Main Line Programme Strategic Business Case – Department for Transport

**Figure 1.5 - Passengers in Excess of Capacity (PiCX) statistics from Autumn 2017<sup>3</sup>**

<i>Operator</i>	<i>Morning Peak</i>	<i>Evening Peak</i>
<b><i>London North Eastern Railway</i></b>	0%	1%
<b><i>Virgin Trains West Coast</i></b>	1%	2%
<b><i>East Midlands Trains</i></b>	11%	17%
<b><i>Great Western Railway</i></b>	5%	2%

- 6.5 Midland Main Line services from Nottingham, Derby and Sheffield into London additionally call at outer suburban London commuter stations, such as Kettering, Wellingborough, Bedford and Luton, in order to provide capacity at peak times. This extends peak journey times from the Sheffield, Derby, Nottingham and Leicester into London significantly. This can make peak services slower than off peak services.
- 6.6 The Midland Main Line has one of only two designated locations of ‘congested infrastructure’ on the entire rail network. This means there is no capacity for additional requests to run trains from passenger or freight operators. The location is the section between Cricklewood and Leicester via Market Harborough and Corby and was deemed congested in September 2014. Within this location, the constraint with the highest priority is identified as the section between Bedford and Kettering where enhancement was deemed necessary for the introduction of any additional passenger or freight services. The L2C project is therefore directed to one of the most constrained locations on the entire rail network.
- 6.7 Demand for intercity services on the Midland Main Line saw a 13% increase between 2008 and 2014, and is expected to keep growing. Total passenger demand growth on Midland Main Line services between 2016/17 and 2036/37 was forecast to be 32% in demand.

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<sup>3</sup> Peak crowding on a typical autumn weekday: 2017 statistics – Department for Transport



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- 6.8 The Midland Main Line Programme is being delivered to enable those outcomes at 4.9 listed in this proof of evidence that will solve the current capacity and journey time issues discussed in this evidence.
- 6.9 There is an economic business case for the MMLP (see 6.10 below), which is owned and managed by the DfT, and which sets out the case for the Midland Main Line Programme in economic terms. This includes the Benefit Cost Ratio (BCR) information which gives the project a 'value for money' rating.
- 6.10 The 'Midland Main Line Upgrade Programme Economic Case' was produced in August 2017 (Economic Case) to support the full business case approval and final investment authorisation of the MMLP. It should be noted that the subject of this evidence, the L2C project, does not have a standalone business case, but instead forms part of this DfT Economic Case for the entire MMLP.
- 6.11 The delivery of the outcomes and associated benefits of the MMLP as outlined in this evidence depends largely on the eventual timetable that is implemented by the rail industry. This is reflected by the Economic Case, which produces a range of BCR scores to reflect three possible differing timetable scenarios:
- Scenario 1 - Uses the timetables developed during the final business case
  - Scenario 2 - Uses the timetables developed during the final business case, modified to include a version of East Midlands Trains earlier bid timetables
  - Scenario 3 - Uses timetables developed during the strategic outline business case, whereby conflicts North of Wigston Junction can be resolved by re-timing other operators services without any detriment.
- 6.12 The BCR of the 3 scenarios listed in 6.11 are shown in figure 1.6 below, and a comparison chart to the DfT guidelines categories on value for money is shown in figure 1.7.

**Figure 1.6 – BCR scores for the three Economic Case options**

	Scenario 1	Scenario 2	Scenario 3
BCR	1.69	6.87	52.87

**Figure 1.7 – Department for Transport guideline categories on value for money**

Value for Money	Range Between	
Poor	Less than 1.0	
Low	1.0	1.5
Medium	1.5	2.0
High	2.0	4.0
Very High	Above 4.0	

- 6.13 As can be seen, if timetables in line with Scenarios 2 and 3 are implemented the MMLP represents 'Very High' value for money. Scenario 1, which is the most pessimistic scenario tested, would still provide 'Medium' value for money.
- 6.14 It was expected that the December 2018 Timetable (TT) would form the base TT from which the December 2020 TT – that is, the TT through which the industry will take the benefit of the MMLP – would be built. When the Economic Case was undertaken, no definitive version of the baseline December 2018 TT existed, hence the future TT were tested in the three scenarios.
- 6.15 The December 2018 TT has now been introduced, but it did not implement the expected baseline industry TT, mainly due to industry issues surrounding the May 2018 TT. Therefore, there is still some uncertainty around what baseline TT will be in place from which to build the December 2020 TT. An industry working group has now been remitted to work on the December 2020 TT; consequently, this will become clearer as 2019 progresses. The Economic Case will be refreshed accordingly, but it is expected that the December 2020 TT that is implemented will still have a business case within the range of the three tested scenarios.

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6.16 Further to the BCR scores in the base economic assessment given in Figure 1.6, there are further sensitivities that have been calculated that alter the BCR for each scenario. Whilst these sensitivities are not a core outcome of the MMLP they are in some way enabled by the programme outputs and the potential timetable outcomes. These sensitivities are listed below and results shown in figure 1.8 below:

- Freight Benefits - Estimates the monetised benefits from increased freight provision on the route.
- Cross Country (XC) Timetable Aspirations - Cross Country aspire to achieve journey time savings following Derby remodelling, concentrating on the Birmingham – Newcastle (via Doncaster) service. Proposals save up to 28 minutes on the Birmingham – Newcastle (via Doncaster) service with minimal changes to other operators' services.
- Higher Quality Air Benefit - A sensitivity test showing higher than predicted air quality test.

**Figure 1.8 - MMLP Economic business case sensitivities**

Sensitivity	Timetable Scenario Timetable 1	Timetable Scenario Timetable 2	Timetable Scenario Timetable 3
Central Case	1.69	6.87	52.87
Freight Benefits	2.78	12.53	Financially Positive
XC Timetable Aspirations	2.51	16.27	Financially Positive
Higher Air Quality Benefits	1.83	7.25	55.7

## **7. REGULATORY BACKGROUND**

7.1 Network Rail owns and operates the rail infrastructure network of Great Britain. Network Rail's purpose is to provide a safe, reliable and efficient railway.

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- 7.2 Network Rail is primarily responsible for the maintenance, repair and renewal of track, stations, signalling and electrical control equipment. Train services on the network are operated by train and freight operating companies, to which Network Rail, as facility owner of the network, grants rights to use the network in the form of track, station and depot access contracts approved by the industry regulator, the Office of Rail and Road (ORR).
- 7.3 The activities of Network Rail (as network operator) are regulated by the ORR by means of a network licence granted under section 8 of the Railways Act 1993. This network licence requires Network Rail to secure the replacement and renewal of the network. When works are required, in order to maintain the quality and capability of the network, schemes are undertaken in a timely, economic and efficient manner so as to satisfy the reasonable requirements of funders and rail-related service providers.
- 7.4 Network Rail's license requires it to publish a delivery plan that sets out its obligations for enhancement projects. This allows train operators to plan their businesses and funders to plan their finances with a reasonable degree of assurance. For CP5, any projects to enhance the rail network are listed in Network Rail's Enhancement Delivery Plan. The L2C project which is the subject of this proof of evidence and the order, is a listed regulated project within the Enhancement Delivery plan. The regulated output date for delivery of the project is May 2020.
- 7.5 Network Rail is also under a duty regarding the safety of the network, principally under The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) **(NR 18)**. The ROGS Regulations implement the EU Railway Safety Directive and require that any infrastructure manager or railway operator on the mainline railway must maintain a Safety Management System (SMS) and hold a safety certificate or authorisation indicating that the SMS has been accepted by the relevant safety authority, before being allowed to operate.

## **8 EARLY SCHEME DEVELOPEMENT AND ALTERNATIVES CONSIDERED**

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8.1 The Order is focussed on consents associated with the electrification scope of the L2C project (of those scope items listed at para 5.3). It should be noted that no alternatives to electrification of the Bedford to Kettering and Corby section were considered. This is due to Network Rail being remitted to deliver an electrification output by its client the DfT.

8.2 Referenced in the Railway Act Statement 2005 the Midland Main Line electrification (MMLe) was a HLOS named project that formed a key part of the MMLP for CP5. It was listed in the CP5 Enhancement Delivery Plan (**NR 26**) and as can be seen from extracts below, was part of the overall government strategy of a rolling programme of electrification.

8.3 Railway Act Statement 2005 (extracts) - Strategic Context:

*- Section 5 - the Government's strategy for CP5 is built around a rolling programme of electrification, making continued use of 'cascaded' modern electric rolling stock and exploiting synergies between schemes in order to efficiently meet forecast demand growth, support economic growth and better environmental outcomes, and secure cost efficiencies for both passenger and freight operators. There is a geographic spread of economic benefits across the key conurbations of the North of England, Midlands, East of England, South-West, and London and the South-East. The strategic intent is to develop the network in a way that will enable it to shoulder demand until High Speed Two (HS2) becomes operational, but is then able quickly to adapt and integrate around the high capacity HS2 corridor.*

*- Section 6 - The strategy is built around four priorities. The first of these is the creation of the "Electric Spine", a high capacity passenger and freight electric corridor running from the South Coast through Oxford, Bedford and via the Midland Main Line to the East Midlands and South Yorkshire, with a link from Oxford to the West Midlands and the North-West. The Electric Spine investment is expected to deliver cost savings to the railway in the medium term, because electric rolling stock has lower purchase, maintenance and fuel costs. It also leads to choices for further efficient route electrification in Control Period 6 (CP6).*

## **9 PROJECT GOVERNANCE**

- 9.1 Network Rail's management and control process for delivering projects on the operational railway is called 'Governance for Rail Investment Projects' (GRIP). The GRIP process has been employed in the development, design and delivery of the L2C project. This includes optioneering, engineering design and addressing Health and Safety legislation.
- 9.2 The L2C project has evolved through several very distinct phases, either as separate projects prior to the creation of the L2C (see section 1.4.1-1.4.2) or after its creation. The first stage sought to identify and compare a selection of high level strategic options with preferred solutions progressed to the next phase, to choose a single option. This option selection stage included an assessment of the viability of each option in terms of meeting the client remit, operability, maintainability, engineering design, deliverability, cost and environmental factors. Following this the chosen option went on through detailed design and finally into delivery.
- 9.3 The L2C project has been through a very detailed internal governance process, known as the investment pipeline. L2C received its final internal 'authority' as part of the pipeline approach in September 2017, having been approved through various investment panels and having final endorsement from the Network Rail Board. This process involved the project completing GRIP stage 4, Single Option Design, and having various reviews including an internal peer review and going through an Independent Assurance Review, remitted by the DfT, before an internal investment decision was finalised.
- 9.4 In parallel to Network Rail's internal governance processes, and as part of the Memorandum of Understanding with the DfT, the project needed to go through the 'double lock' process for investment authorisation.
- 9.5 In September 2017, the Department for Transport took their final business case to the Board Investment and Commercial Committee, which was approved. Later in September

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2017 the final business case had its final sign off by the Secretary of State which, along with Network Rail Board approval saw the 'double lock' process completed, and the project investment fully authorised.

## **10 PUBLIC CONSULTATION**

### **10.1 MMLP and L2C**

10.1.1 Network Rail project team members have met with representatives of several councils, MPs and councillors to highlight the benefits of the electrification programme. General awareness events have been held in council buildings, at the Houses of Parliament and in public venues. For specific elements of project scope related matters public events have been targeted near to the work sites as both awareness and information events.

### **10.2 BROMHAM ROAD**

10.2.1 Bromham Road Bridge forms part of the A428 and is a vehicular road bridge with a pedestrian footway on either side of the carriageway. The bridge is a brick arch structure which spans over the four track railway. The current height of Bromham Road Bridge does not provide enough headroom clearance to install the required electrification infrastructure. The bridge is situated to the west of Bedford town centre and is 350m north of Bedford Station.

10.2.2 The A428 is a very busy transport route into Bedford from the west, with Bromham Road Bridge linking residential areas located immediately on both sides of the railway line. The approach from the east and west is along paved routes which have a slight gradient. Usage of the bridge is typically by road traffic, cars, pedestrians and cyclists.

10.2.3 In 2015, as part of the MMLe project, Network Rail discussed with Bedford Borough Council (BBC) options for the reconstruction of this structure, noting that the structure falls within the ownership of BBC. BBC referred a previous scheme to deliver a cycle/road bridge in 2001 (Allen's development). This option was never progressed, but the council alerted Network Rail to lobbying by the Cycling Campaign for North Bedfordshire. At this time Network Rail produced a couple of high level options for the BBC to consider which would create a facility for cyclist usage. One option was to widen the existing structure to the limited extent possible, that utilises the existing foundations of the bridge without the need to reconstruct the whole bridge, which could create width enough for an unsegregated cycle way on one side (the option adopted by Network



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Rail); the second option was to create a new standalone structure (an option under BBC's consideration). In 2015 Network Rail advised BBC that creating a new facility to the bridge would be considered as enhancement and that it would sit with BBC to fund its development.

10.2.4 In November 2016 Network Rail undertook stakeholder engagement with user groups as part of its diversity and inclusion process.

10.2.5 In 2017 Network Rail and BBC jointly prepared a Basic Asset Protection Agreement which would have enabled Network Rail to undertake development of a design to create betterment to the cyclist community on behalf of Bedford Borough Council. This agreement was not signed by BBC and the works did not progress on behalf of BBC.

10.2.6 Noting stakeholder feedback Network Rail, in conjunction with the Department for Transport (DfT) agreed to a change to the preferred option for Bromham Road. This enhanced option widens the deck structure to its maximum cantilevered width (see Proof of Evidence of Dave Butterworth **(NR73) para 3.2.2**). It was noted at this time that to provide a wider bridge incorporating a 3m cycleway would require full demolition of the bridge abutments to ground level as they are not big enough to accommodate a wider bridge span. Possible changes to the foundations were also noted, which would be likely to impact on existing railway infrastructure as this would involve excavation in the track support zone, potential changes to cable routes, and relocation of signalling equipment cases etc. It would also require amendments to the alignment of the existing approach road to cater for a wider road profile, which in turn would require more temporary and permanent land to be required to construct the larger structure. Such works would result in a longer construction period and would increase disruption to local residents. Such works may also adversely affect the protected plane trees to the east of the current bridge.

10.2.7 To date the L2C project team has hosted two Transport and Works Act sessions in Bedford and hosted several events in and around the local shopping area, the most recent event being held on the 07/12/18 at the Park Inn Hotel, Bedford.

10.2.8 In addition to the public events in Bedford a site-specific event for the residents of Granet Close, Bedford was held on the 07/12/18 on site. Attendance to this event was low (in total two people conversed with the project team between 11:00 and 13:00). The concerns raised on site related to fencing issue (not project related), noise issues (general and related to piling works for the overhead line masts) and the potential disruption to road traffic whilst the bridge works are ongoing.

### **10.3 Irthlingborough Road**

10.3.1 Network Rail has hosted a stakeholder event at Irthlingborough Road in 2018. Regular meetings are diarised and held with Bovis Homes Limited (OBJ/7).

### **10.4 Viaducts**

10.4.1 Network Rail has engaged with landowners with regards to air rights when attaching Overhead Line Equipment to the outside of three viaducts. Bovis Homes Limited has raised an objection (OBJ/7) in relation to impact on Public Rights of Way at Irchester Viaduct. This is dealt with in para 9.2 of the Property Proof of Evidence (**NR71**). There have not been any objections raised at Sharnbrook Viaduct or Harpers Brook Viaduct.

## **11 FUNDING AND SUPPORT**

- 11.1 The DfT is the MMLP promoter, client and funder. The programme, including the L2C project were all subject to a Final Investment Decision, based on a full business case, in September 2017. The Board Investment and Commercial Committee approved the decision in September 2017, with endorsement from the Secretary of State also received in September 2017 and therefore the L2C project is a fully funded scheme.
- 11.2 The DfT franchise competition for the next East Midlands franchise is currently in progress, with the expected winning bidder to be announced in the Spring of 2019. However, the incumbent franchisee, East Midlands Trains, is fully supportive of the MMLP and the L2C project. East Midlands Trains has been fully involved in development and delivery of all parts of the programme, but specifically significant involvement in the design and delivery of stations work, the stabling facility and the signalling design scope of the L2C project. East Midlands Trains is also a key member of the MMP governance, through the Programme Board.
- 11.3 Freight Operators DB Cargo UK, Freightliner and GB Railfreight are all supportive of the MMLP and the L2C project. All operators have been involved in, and have contributed to, industry processes leading to the delivery of the MMLP, including L2C. Along with the Kettering to Corby Capacity Project, the MMLP increases freight capacity on the Midland Main Line helping the network cope with future freight growth.

## **12 SUMMARY AND CONCLUSIONS**

- 12.1 In conclusion it is clear that the Order scheme has a business case that is at worst 'medium' and at best 'very high' value for money. I believe the evidence outlined makes it clear that it will contribute to economic, environmental and societal benefits to the UK, notably the East Midlands. This evidence demonstrates a clear needs case for the Order scheme.
- 12.2 The needs case has not been objected to, and there is clear support for the Order scheme from Secretary of State for Transport and the Department for Transport.

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Importantly the Order scheme will be in clear accord with the Government's stated aim to improve the MML through the HLOS.

12.3 My colleagues will demonstrate that Network Rail has undertaken the appropriate level of assessment on all design options for the works comprised in the Order (see Mr Butterworth's Proof of Evidence – **NR73**).

12.4 I urge the inspector to consider this evidence, in conjunction with that of my colleagues, and I respectfully request the inspector to recommend that the Order be made, and that the relevant powers required by Network Rail to complete the works be deemed to be granted.

### **13. STATEMENT OF DECLARATION**

I hereby declare as follows:

- I. This Proof of Evidence includes all facts which I regard as being relevant to the opinions that I have expressed and that the inquiry's attention has been drawn to any matter which would affect the validity of that opinion;
- II. I believe the facts I have stated in this Proof of Evidence are true and that the opinions expressed are correct; and
- III. I understand my duty to the inquiry is to help it with matters within my expertise and I have complied with that duty.