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NetworkRail

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY) ORDER)

SPONSOR PROOF OF EVIDENCE Chris Nash BEng Hons MBA

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THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

CONTENTS

1	INTRODUCTION	3
2	BACKGROUND TO THE OXFORD CORRIDOR PROJECT	4
3	NEED FOR THE SCHEME:	7
4	AIMS AND OBJECTIVES OF THE SCHEME	14
5	TIMING OF THE NEED	15
6	SCOPE OF WORKS	16
7	FUNDING AND DELIVERY	16
8	IMPACT OF NOT PROCEEDING	16
9	CONSULTATION	17
10	CONCLUSIONS	19
11	WITNESS DECLARATION	20

1 INTRODUCTION

1.1 Qualifications and Experience / Involvement with the Project

- 1.1.1 I am Chris Nash, BEng Hons, MBA. I have been employed in the railway industry since 2015, working for Network Rail in project roles as Sponsor and Senior Sponsor, leading the development and delivery of major projects in the Oxfordshire area. Prior to this I have eleven years of experience in the automotive industry in both technical and commercial roles working with Original Equipment Manufacturers on large engineering projects.
- 1.1.2 I am currently the Senior Sponsor for the Oxford Corridor Phase 2 project. The Senior Sponsor role is within the Wales and Western Regional Investment team in Network Rail. This team is the key interface from the region to our funders for enhancements to our railway. We create a link between external stakeholders and our delivery arms and ensure that we prioritise and manage the right projects to deliver enhancements on time, and to cost and for the future benefit of our passengers and freight users. We also provide support to complex and multi-disciplinary renewals as required.
- 1.1.3 The team work with key stakeholders such as the Department for Transport, Sub-national transport bodies, local authorities and other external third parties. Working with our routes, we ensure we have a fit for purpose railway, meeting the anticipated and ever-changing demands of current and future passengers and freight users, and our communities. We drive growth and support local priorities including sustainability and social value by working with external funders to ensure that our region is easy to do business with.
- 1.1.4 Acting as Sponsor I am Networks Rail's agent (Client representative), carrying out on a day to day basis all of the essential tasks to define projects, obtain funding on the basis of sound business cases, manage stakeholder inputs and expectations, communicate requirements and constraints to a Deliverer (who will be carrying out the works, and is the Capital Delivery organisation within the NR Western and Wales Region), accept the completed work, and close out the project. All of this must be done with due regard to safety, operations, value for money (VfM) and sustainability.
- 1.1.5 The Sponsor is the guiding mind throughout the project/programme lifecycle. I am the link between the Client, Funder, Strategic Planning, Delivery Agent and key stakeholders and ultimately accountable for the success of this project/programme.

1.2 Scope and structure of evidence

- 1.2.1 My evidence will explain the background to the OSP2 Project, how the scheme developed, the benefits of the new services, future passenger demand projections and the resulting need for the works which underpins the requirement for the Transport and Works Act Order.
- 1.2.2 In particular, my Proof of Evidence is structured as follows:

Section 2 - Need for the scheme;

Section 3 – Aims and objectives of the scheme;

Section 4 – Timing of the need;

Section 5 – Scope of works;

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

Section 6 - Funding and delivery;

Section 7 - Impact of not proceeding;

Section 8 - Consultation;

Section 9 - Conclusions.

2 BACKGROUND TO THE OXFORD CORRIDOR PROJECT

2.2 Introduction

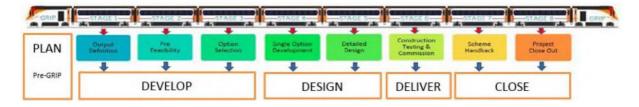
- 2.2.1 Oxfordshire is one of the most productive economic regions in the United Kingdom with high growth forecast over the next fifteen years (**D18**). Housing and employment growth must be supported by a transformation in transport infrastructure. Oxfordshire's rail system which functions as a strategic hub for local, regional and national passenger and freight services has accommodated significant growth in the last ten years but has little capacity to accommodate any further growth.
- 2.2.2 Positioned at the heart of the rail corridor, Oxford links the Great Western Mainline (GWML) at Didcot with the Midlands and the North. This corridor is vital for passenger and freight services between the north and south of the country and is joined by the London Marylebone to Birmingham line south of Banbury. The same corridor provides branches to important rail corridors through the North Cotswolds to Worcester, and to Bicester (and in future across the Arc to Bedford and Cambridge).
- 2.2.3 Oxford station is a key origin and destination for passenger services to cities including London, Birmingham, Worcester, Hereford, Winchester, and Southampton. It is also the hub of the important local rail market in Oxfordshire connecting Oxford to the major towns of Banbury, Bicester and Didcot, plus other significant rail hubs including Hanborough and Charlbury.
- 2.2.4 The growth of rail passenger demand at Oxford station is reflective of its position as the hub of the county's rail network, with extensive amounts of commuting into the city from the surrounding areas, as well as serving as an origin for interregional commuting. This has also been bolstered since 2016 by investment to introduce a new direct rail route between Oxford and London Marylebone via the Chiltern Main Line.
- 2.2.5 In addition to the passenger market, Oxfordshire holds a strategically vital position for rail freight, particularly for intermodal and automotive flows between the Port of Southampton and the Midlands. The Oxfordshire Rail Corridor Study (**D18**) freight market forecasts predict at least a doubling of demand for rail freight through Oxfordshire by 2043.
- 2.2.6 Oxford Phase 2 is the critical enabler for any further service increases into Oxford, with the current infrastructure at full capacity following the major timetable recast for the region in December 2019. The scheme unlocks key constraints both at Oxford station and across the wider network. It will provide freight benefits, add capacity as well as improving performance and safety.
- 2.2.7 It is also a key enabler for all future schemes in this strategically important rail corridor, required by December 2024 to provide the necessary infrastructure to successfully deliver and operate the 2024 train service specification, accommodating East West Rail and supporting wider rail proposals under Oxfordshire Connect.

2.2.8 The scope of the scheme is therefore a key requirement for any service growth at Oxford station. It is also a key performance measure to support the delivery of a resilient timetable across multiple regions, particularly with the introduction of the next service change in 2024 with the next phase of East West Rail (Connection State) which will introduce two additional trains per hour between Milton Keynes and Oxford.

2.3 Development of the Oxford Corridor Project

- 2.3.1 The Oxford Corridor project started in 2010 with initial feasibility work completed June 2011. The drivers for the project were to increase route capacity through the provision of additional passenger and freight train paths per hour in each direction and where feasible, reduce end-end journey time within the physical scope of the line of route between Didcot (North Junction) and Oxford (including to Wolvercote Junction) (C16). Development for the scheme continued with an initial option selection report produced in 2012 before being revisited in 2014 with changes made to the scope of Phase 2 works to include a new west side through platform at Oxford Station.
- 2.3.2 The Oxford station area capacity and station enlargement was a Control Period 5 (April 2014 to March 2019) High Level Output Specification (HLOS) option scheme for delivery (C5). The HLOS is a statutory requirement introduced by the Railways Act 2005 setting out information for the Office of Rail Regulation (ORR) and for the rail industry about what the Secretary of State for Transport wanted to be achieved during the railway control period (C6). In order to support the timely development and delivery the scheme was split into two parts, Phase 0/1 and Phase 2. Phase 0/1, delivered in CP5, upgraded track and signalling in the Oxford, with final commissioning completed in August 2018.
- 2.3.3 The Oxford Phase 2 scheme had greater focus on station capacity upgrades at Oxford Station; in particular the requirement for additional platform capacity. Delivery of this phase of the scheme was deferred from CP5 (2014-2019) to CP6 (2019-2024) under the Sir Peter Hendy Review in 2015 which replanned Network Rail's overall investment programme putting the rail upgrades on a more realistic and sustainable footing. The delivery of the Oxford Phase 2 scheme was reprogrammed to CP6 to better align with Oxford City Council's aspirations to improve the highway through the Botley Road Bridge (C7).
- 2.3.4 Scheme development continued during CP5 and the project was remitted to commence Governance for Railway Investment Projects (GRIP) stage 4 (Option Development) in 2018. GRIP is a key Network Rail process for effective control over railway projects, providing a structure to the life-cycle of NR projects and comprises of 8 stages from definition of required outputs through to handover for operational use and close out of the project as set out in figure 1 below.

Figure 1



2.3.5 Single option development (GRIP4) was completed in March 2020 ahead of an outline business case (OBC) submission to the DfT which was approved in April 2021. Funding has been approved for land

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

acquisition, consents and detailed design for the scheme. The full business case (FBC) for the scheme will be submitted in January 2022 following the Public Inquiry, which is usual in terms of timing for such projects.

3 NEED FOR THE SCHEME:

3.1 Regional Context

- 3.1.1 Oxfordshire anchors the west of the Oxford–Cambridge Arc ('the Arc'), an area that also incorporates the counties of Buckinghamshire, Northamptonshire, Bedfordshire, and Cambridgeshire. As a whole, it forms an area of 3.7 million people with a 21st century economy rich in high value engineering, science, technology, and research which generates £111bn Gross Value Added (GVA) per year. (D21)
- 3.1.2 Government has recognised that by building upon existing strengths in different parts of the Arc, there is the long-term potential to transform a set of overlapping labour markets with their own technology and business clusters into a world-leading economic area (**D21**). Government has therefore designated it as a key economic priority and identified that to support this vision there is a demand to deliver significantly more housing throughout the whole area.
- 3.1.3 In its 2017 report 'Partnering for Prosperity: a new deal for the Cambridge-Milton Keynes-Oxford Arc', the National Infrastructure Commission (NIC) identified significantly higher levels of housing growth by 2050, supported by the provision of new infrastructure in advance of the creation of new communities to improve connectivity across the Arc. (D22).
- 3.1.4 There is also a recognition that it will be crucial to improve rather than degrade the environment alongside the proposals, to ensure that the new homes meet the Government's commitment to provide places people want to live. The Arc is at an existing advantage in that regard, containing as it does 10 world-leading universities, Blenheim Palace World Heritage Site, 205 Scheduled Monuments, 48 Registered parks and gardens, 7,321 listed buildings, 3 Areas of Outstanding Natural Beauty, and 144 Conservation Areas (D21).
- 3.1.5 To complement central government plans for the Arc, Local Authorities and Local Enterprise Partnerships have established a Sub-national Transport Body, England's Economic Heartland (EEH), to determine their strategy to meet the transport needs of the wider region, ranging more broadly from Swindon to Cambridgeshire and Northampton to Hertfordshire.
- 3.1.6 EEH launched their Outline Transport Strategy in 2020, which reinforced the key requirement to improve connectivity across the region, a key element of which will be to strengthen links between the regions' interchanges with the major transport corridors that radiate out from London. That approach will both improve connectivity within the region and provide better links to the rest of the country (C8). Together with improvements in digital infrastructure and targeted road improvements, East West Rail (EWR), the proposed new rail service from Oxfordshire to Milton Keynes and Cambridge, will help deliver that vision by creating a step change in connectivity.
- 3.1.7 EEH issued their Regional Transport Strategy in February 2021, which highlighted the need for a shift to public and active modes of transport to deliver decarbonisation, whilst also reinforcing the key priority to improve connectivity between population, employment, and universities across the region.
- 3.1.8 EEH have built their approach to decarbonisation of the transport in the region on central government policy, through encouraging a modal shift away from private cars to public transport, which is far less carbon intensive (C8). Rail will play a central part in this as it is the least carbon intensive form of transport (even prior to decarbonisation), though EEH identify that the decarbonisation is urgently required to allow rail to contribute towards achieving net zero (C8).

3.2 Local Context

- 3.2.1 Oxfordshire has one of the strongest economies in the UK, contributing £21bn to the UK exchequer in 2018 (D23). It has significant assets in research and development and an international brand that draws talent and investment to both the City of Oxford and the numerous science, innovation, technology and business parks located across the county. Oxfordshire's knowledge-led economy generates the highest number of university spinout companies in the UK.
- 3.2.2 Despite these strengths, Oxfordshire has low productivity relative to many peers (**D24**). Poor east-west connectivity and an exceptionally strong demand for housing means that Oxford has repeatedly headed lists of cities with the lowest levels of housing affordability. This is a problem that extends across the county, with median prices between 9.1 and 12.6 times median wages, compared to the mean for England and Wales of 7.7 times, with Oxfordshire's 5 Local Authority districts between the 65th and 91st percentiles for median earners.
- 3.2.3 The barriers to home ownership are particularly high for those on lower incomes, with lower quartile house prices 10.4 12.82 times that of lower quartile earnings, compared to a mean for England and Wales of 7.06. Oxfordshire's five Local Authority districts are between the 70.5th and 88th percentiles for lower quartile affordability in England and Wales (**D25**). This increases costs for businesses and diminishes the ability of businesses to attract and retain globally mobile talent (**C9**).
- 3.2.4 Recognition of a need to resolve these issues, and the implementation of plans for wider devolution across the UK led to the establishment of a City Deal between Oxfordshire and Central Government in 2014 to address the historic underperformance of the county relative to its international competitors. The City Deal identified that the constraints on growth caused by insufficient public transport and an at-capacity road network, under-developed business networks and lack of critical mass to support growth and investment led to a loss of £500m GVA to the local economy between 1997 and 2011 (**D24**).
- 3.2.5 To address this, the Local Authorities, the Oxfordshire Local Enterprise Partnership (OxLEP) and other stakeholders established the Oxfordshire Growth Board to develop a strategic approach to the generation of sustainable growth within the wider context of the Oxford-Cambridge arc. The integration of Local Plans through this framework led to the Oxfordshire Housing & Growth Deal, a ground-breaking agreement with central government, which underpinned a commitment to build 100,000 new homes in Oxfordshire by 2031. This is a step change in delivery of new housing, equating to 5,100 units per year against an average of 2,333 between 2011 and 2015. These plans mean Oxfordshire's population is forecast to grow by 39% between 2016 and 2040 (C9).
- 3.2.6 The distribution of planned housing varies significantly between districts in the county. The urban nature, very tight administrative boundaries, and almost complete absence of greenfield sites means there is limited opportunity to build large numbers of houses in the City of Oxford (D30), so committed housebuilding is primarily allocated across Oxfordshire's other settlements in the Local Plans.
- 3.2.7 Employment growth is equally significant, with the primary locations in Oxfordshire along the Knowledge Spine. The Knowledge Spine cross-cuts the county; running from Harwell and Culham in the south, to the life science Bio Escalator in Oxford, on to the advanced engineering hub at Begbroke, and through to Bicester in the north. The Oxfordshire economy is projected to double in size and create 108,000 additional jobs by 2040. Collated Local Plan data was provided to Network Rail by Oxfordshire County Council in March 2019 detailing levels of housebuilding committed in the plans.

3.2.8 The above figures on planned housebuilding and job allocations are set out in Figure 2. Together, these highlight that there are distances to bridge between where the new houses are planned and where the jobs are, although both are clustered along the Knowledge Spine and rail corridor from north to south. Improvements to rail is a sustainable solution to bridging these gaps.

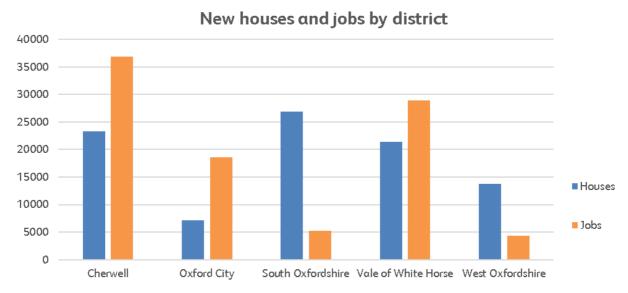


Figure 2 – Local Plan housing and employment allocations by district to 2031

3.2.9 Under the declaration *Climate Action for a Thriving Oxfordshire* (**D26**), the County Council has adopted ambitions to become carbon neutral by 2030 and to enable a net-zero Carbon Oxfordshire by 2050. Transport initiatives are being developed as part of this initiative, and Network Rail is working with the local authorities in progressing these where rail is involved.

3.3 Transport in Oxfordshire

- 3.3.1 Rail is a key element of Oxfordshire's transport system. However, there are various constraints on the rail network which restrict the ability to achieve more frequent or faster train services. So further work is needed to provide extra capacity that will facilitate new and revised service patterns that better match the growth planned for Oxfordshire and neighbouring areas.
- 3.3.2 Oxfordshire's transport network currently has insufficient public transport and an at-capacity road network. That leads to congestion, slows bus journeys, and results in delays on important transport corridors. In total, 45,000 vehicles are driven in and around Oxford every morning rush hour, creating around 50 tonnes of CO2 in every morning rush hour (D27). The average speed of traffic into Oxford in the morning rush hour was 10.6mph, whilst average bus speeds in Oxford have been less than 10mph since 2016 (D27).
- 3.3.3 Furthermore, there are several Air Quality Management Areas on Oxfordshire's road network, where NO2 levels are in breach of government targets established from World Health Organisation guidelines. Effective action plans are in place for many of Oxfordshire's AQMAs that have had significant successes in reducing NOx levels through policies such as Oxfordshire County and Oxford City's joint strategy Connecting Oxford and the restrictions on emissions within Oxford, to encourage a shift towards public and active modes of transport, however areas adjacent to major trunk roads are particularly challenging to control due to the large number of HGVs that use the routes. In its most recently available status

- report on air quality, the Vale of White Horse District council observed that the A34 is a particular challenge, with no easy solutions to the reduction of emissions (D28).
- 3.3.4 Without significant investment, this situation stands to be worsened by the growth detailed in previous paragraphs. In its 2017 Oxfordshire Infrastructure Strategy (OxIS), the Oxfordshire Growth Board identified priority projects across all modes of transport that are needed to alleviate existing congestion and support growth to 2040. The list of highest priorities included a number of strategic rail projects, including the upgrade of the rail network through Oxford and the station (C9).

3.4 Rail in Oxfordshire

- 3.4.1 Rail is a key element of Oxfordshire's transport system, with over 20.5 million journeys made to and from Oxfordshire stations in 2018-19. Journeys to and from stations in Oxfordshire have increased by 69% in the 10 years to 2019 against a UK average of 42%. Oxford station is by far the busiest of Oxfordshire stations with 8.27 million journeys in 2018-19, an increase of 63% over ten years. Oxford is the 5th busiest station in Network Rail's Wales & Western region.
- 3.4.2 Oxfordshire holds a strategically vital position for rail freight, particularly for intermodal and automotive flows between the Port of Southampton and the Midlands. Rail freight has an important environmental role as a means of inducing modal shift from road haulage which is relatively a far greater source of emissions. Supporting rail freight growth is therefore instrumental to improving environmental outcomes.
- 3.4.3 Future projections determined as part of the Oxfordshire Planned Growth Scenario (OPGS) predict that passenger numbers at Oxford Station will grow significantly over the next 15 years, with minimum 2% annual growth rate (C12) The OPGS is a bespoke demand forecast that uses data on the location, size, and delivery timeframe of all planned housing and employment sites detailed in the five Local Plans collated by Oxfordshire County Council. This provides a level of detail that is not captured in the DfT Transport Appraisal Guidance (TAG) method of demand forecasting, but which fits the Local Plan data into the recognised forecasting framework. This increase will be made against a backdrop of historic sustained growth that has already seen very large increases in the numbers of passengers travelling into Oxford. At the start of the ORR data series on station usage in 1997/98, Oxford station saw 3.1m journeys. Two years later, the first year with interchange data, it saw 81,000 interchanges. This compares with 8.7m journeys and 821,000 interchanges in (COVID affected) 2019/20, and 9m journeys in the non-COVID affected 2019/20 (taken as March 2019-February 2020 rather than April to March as normal).
- 3.4.4 Conditional outputs from the Oxfordshire Rail Corridor Study project a significant uplift in train services into Oxford in the coming years to reflect the scale of improvement required to support the level of growth in Oxfordshire. The train service specification in peak hours is projected to increase from 13 trains per hour in peak time, up to 15 trains per hour in 2024 with a further increase to 20 trains per hour in 2028 (D18). Significant enhancements are required at Oxford Station to support this, including provision of additional platform capacity.
- 3.4.5 With the introduction of the December 2019 timetable, Oxford Station is at full capacity and cannot robustly accommodate the further growth and service enhancements planned to be introduced in 2024. In advance of a clear understanding of the pandemic on future demand for public transport, the impact of COVID is being modelled as reductions from 2020 demand. These are based on DfT Covid Scenarios Toolkit v16 (received 22 June 2021). The low demand scenario is associated with

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

approximately a 30% reduction in demand in the long term whilst the medium scenario is associated with approximately a 16% reduction in demand in the long term. Sensitivities are captured within the business case for the scheme. Whilst it is still too early to understand the long-term impact of the pandemic on travel patterns, rail industry data has shown that local and regional rail markets performed more strongly than the London commuter market between the first and second national lockdowns in 2020, so demand growth in the rail market centred on Oxford would be expected to remain above the national average in future, as a focus on travel for leisure and tourism emerges.

- 3.4.6 GWR has supplied information on Oxford Station average tickets through gatelines, for comparative periods pre COVID-19 (September 2019) and more recently (September 2021). This has demonstrated:
 - For weekdays, average tickets through gates were at 66% of pre COVID-19 levels.
 - For Saturdays, average tickets through gates were at 85% of pre COVID-19 levels.
 For Sundays, average tickets through gates were 23% higher than pre COVID-19 levels.

This indicates a relatively strong recovery in rail demand overall, while also reflecting trends observed nationally, with a higher proportion of travel demand now evident in off peak and weekend periods than previously.

- 3.4.7 Whilst passenger numbers may drop in the short term, there remains a requirement for additional platform capacity at Oxford station to support the introduction of new train services, including East West Rail in 2024.
- 3.4.8 The COVID pandemic has had little immediate impact on rail freight, which recovered to normal levels after the first national lockdown with relatively little subsequent impact.

3.5 Existing Constraints at Oxford Station

- 3.5.1 Capacity analysis produced by Network Rail (C10)demonstrates that Oxford Station cannot robustly accommodate the Oxford train service enhancement proposed for 2024. The current station facilities are based around those provided during the last major rebuild of Oxford Station in 1990, at a time when passenger numbers and anticipated growth was at a historical low.
- 3.5.2 The constraints at Oxford Station include both platform availability and pedestrian flow capacity, restricting the transition of journeys from private car to public and active modes of transport. In the existing timetable, trains are often held outside the station to wait for a through platform to become available, and services have long turnaround times in the bay platforms until paths become available on the Chiltern Main Line.
- 3.5.3 The options for the location of Oxford Station have been limited since its original construction. The provision of additional platform capacity at Oxford Station is severely constrained by the surrounding land use which means that only a narrow strip of land to the west and to the east are available for the construction of a new platform. These constraints mean that any expansion of Oxford Station requires a Transport and Works Act Order (TWAO) for land acquisition outside of Network Rail's ownership.
- 3.5.4 Further constraints have been added over time. To the east of the station, housing and roads have been built right up to the railway boundary in places, with university buildings and a bus terminus also limiting the ability of the station to expand beyond its existing footprint. The Rewley Road swing bridge further constrains options to the east of the station. This rail bridge once carried the railway across the Sheepwash channel to a former station on the site of Oxford University's business school. Designed by Robert Stephenson, it is now a scheduled ancient monument.
- 3.5.5 Pedestrian flows in Oxford Station are forecast to become non-compliant before 2024 (C11). With the forecast increased demand, modelling has identified a number of constraints with the existing station including crowding on platform 3 due to the existing main concourse gateline. At the southern end of Oxford Station, an underbridge carries the railway over the A420 Botley Road. This bridge restricts the maximum permitted speed of the line that exits Platform 3 towards the south and forces all the tracks into an alignment that is difficult to maintain due to the track being directly fixed to the bridge deck in the current design. Public consultation undertaken by Oxfordshire County Council suggests that the bridge as a major disincentive to cycling to the station, bus station and wider city centre from the west due to the narrow width of the highway and footpaths, particularly on the north side (D27). Furthermore, road clearances under Botley Road Bridge are currently not sufficient to enable standard height double-decker buses to travel under the railway bridge, as a consequence the local highway authority has to use special buses for this route.
- 3.5.6 The increased use of Oxford Station as an interchange, following the introduction of the London Marylebone services, is also notable as there has been no increase in waiting rooms or improved retail offer, leading to additional waiting on platforms. This will become an exacerbated issue following the introduction of East West Rail services which are currently specified to terminate at Oxford.
- 3.5.7 The combination of these issues contributes to low levels of passenger satisfaction with Oxford Station. The 2018 National Rail Passenger Survey (**D29**), undertaken by the passenger group Transport Focus, found that amongst the 56 stations with more than 100 respondents, Oxford was ranked third worst. Funding has been committed to redevelop both stations that scored worse in that survey, with work nearing completion at Glasgow Queen Street and work started at Gatwick airport in Spring 2020.

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

- 3.5.8 For these reasons, improvements have been identified as a high priority by Oxfordshire's local authorities (C9), to ensure the station can form part of plans for a regional transport hub and an international gateway to the city.
- 3.5.9 Investment in Oxfordshire delivered between 2014 and 2019 led to significant improvements to rail capacity in the Oxford corridor through 3 separate projects. The combined outputs of Oxford Corridor Phase 0 and 1, East West Rail Phase 1, and Southampton Freight Train Lengthening (STFL) led to the provision of a passenger connection between Oxford and the Chiltern Mainline at Bicester, an additional bay platform at Oxford station for Chiltern Railways services to London Marylebone, additional track to allow longer freight trains, and re-signalling works to maximise the potential of the existing track layouts. However, elements of the scheme were deferred, which has meant the creation of a railway fit for the needs of the 2020s and 2030s is yet to be completed.
- 3.5.10 Options for additional platform capacity at Oxford Station included a proposal in 2011 for a south facing bay platform located to the south of Oxford Station as an alternative to the current west side through platform within the OSP2 project. This was later discounted as it was determined that this was not viable to meet future capacity demands (C16. Additional future enhancements are proposed to the east side of Oxford Station which include extending the track for the existing bay platform 1 through the current station concourse building to the south of the station and over Botley Road. It should be noted that such interventions to the east side of the station will be required in addition to the west side through platform within the OSP2 project, rather than as an alternative. The OSP2 project will facilitate future development of the east side of the station by providing an increase in capacity and an additional station entrance that will reduce reliance on the east side.
- 3.5.11 Underpinning the projected increase in train service specification within the Oxfordshire Rail Corridor Study is the principle that the optimal specification meets the maximum number of outputs with the minimum number of services. Regardless of this principle, required connectivity benefits cannot be delivered without linking services across Oxfordshire for two reasons. Firstly, the interchange requirement at Oxford would mean that flows between Oxfordshire hubs would not be met. Secondly, the platform capacity required for multiple terminating services would be more than double that for through services and could not be delivered at Oxford station. This would compromise delivery against the outputs and therefore not support Oxfordshire's growth.

4 AIMS AND OBJECTIVES OF THE SCHEME

- 4.1.1 The purpose of the Oxford Phase 2 project is to facilitate improved capacity and capability on the "Oxford Corridor" (Didcot North Junction to Aynho Junction). The Oxfordshire Housing & Growth Deal and Oxford-Cambridge Arc identify significant growth and development within the Oxford Corridor and accordingly Oxfordshire's rail network requires improvement to be able to provide the necessary capacity to support this growth. As well as enhancements to rail infrastructure, improvements to highways are being undertaken as part of the works. Together, these form part of OSP2 Project.
- 4.1.2 The OSP2 Project forms part of a package of rail enhancement schemes which deliver significant economic and strategic benefits to the wider Oxford area and the country. The enhanced infrastructure in the Oxford area will provide benefits for both freight and passenger services, as well as enable further schemes in this strategically important rail corridor, including the introduction of East West Rail services in 2024 and beyond.
- 4.1.3 The project unlocks physical and timetabling constraints at Oxford Station, delivering additional performance and capacity to enable the introduction of new services necessary to unlock wider economic benefits.
- 4.1.4 The scheme will deliver enhanced connectivity across the region, supporting the levelling up agenda particularly with the new east-west opportunity.
- 4.1.5 It will enhance passenger experience and local accessibility by providing a new west-end station entrance benefitting one of the major centres for education, science, culture and tourism in the UK, including promoting pedestrian and cycle access, to drive the sustainable travel agenda.
- 4.1.6 Platform capacity at Oxford will be increased to accommodate an additional 3 trains per hour into Oxford. This is to enable the introduction of East West Rail and extra Chiltern Railways services, providing improved connectivity to Banbury, Birmingham and throughout the Oxford-Cambridge Arc in support of planned housing and jobs growth. The scheme will also facilitate further growth in freight services.
- 4.1.7 The scheme will deliver journey time improvements for passengers using Platform 4 travelling west on Botley Road, due to the provision of a west side station entrance.
- 4.1.8 Pedestrian flows through the station will be improved so that they are compliant to industry standards for existing and forecast demand growth, supporting the attractiveness of rail as a transport mode.
- 4.1.9 The project will improve road safety through reduced risk of incidents involving pedestrians and cyclists owing to segregated routes, reduced risk of incidents involving vehicles owing to space and segregation and reduced risk of highways-induced events such as bridge strikes resulting from the greater height clearance. The Botley Road works will enable a modal shift from cars to active and public modes of transport from West Oxford.
- 4.1.10 The works to Botley Road highways will permit standard height 4.4m buses on routes using Botley Road bridge instead of today's 4.2m height buses, resulting in fleet homogeneity and procurement / resale benefits. Bus benefits specifically related to procurement of electric buses, where the reduced height and fleet homogeneity issues may be more costly.

- 4.1.11 The scheme will deliver extensive public realm improvements.
- 4.1.12 It will also support future electrification through Oxford Station, by rebuilding the canopy on Platform 4 that would be non-compliant with overhead line electrification masts.
- 4.1.13 The project will deliver savings attributable to asset management / maintenance as result of improved condition and quality of new assets compared to the old.
- 4.1.14 The scheme will enable the future re-development of the east side of the station including the future Oxford Station Masterplan by providing greater platform capacity, an additional station entrance for use during construction works and removing constraints associated with Botley Road bridge.
- 4.1.15 Additional capacity will be provided by the Oxford Phase 2 project to enable further service enhancements to align with connectivity improvements identified in the Oxfordshire Rail Corridor Study and Midlands Rail Hub.
- 4.1.16 The scheme will catalyse major adjacent development opportunities in Oxford's West End, alongside the station development, by improving connectivity and accessibility. This will help accelerate the creation of high value, productive growth in the city centre and wider region.
- 4.1.17 The project will deliver additional capacity to support housing growth proposed in the Oxford-Cambridge Arc.
- 4.1.18 The scheme will contribute to decarbonisation by encouraging the move away from private car to train use and through the ability to support increased rail freight capacity.
- 4.1.19 The scheme has a strong Strategic and Economic Case. The benefit cost ratio range for the overall Oxford Phase 2 project was 2.85 3.39 within the Outline Business Case (OBC), representing high value for money (C12).

5 TIMING OF THE NEED

- 5.1.1 Oxford Phase 2 is the critical enabler for any further service increases into Oxford and is required by December 2024 to provide the required infrastructure to successfully deliver and operate the 2024 train service specification, accommodating East West Rail and supporting wider rail proposals under the Oxfordshire Connect Programme (C12).
- 5.1.2 The scope of the scheme is therefore a key requirement for any service growth at Oxford station. It is also a fundamental performance measure to support the delivery of a resilient timetable across multiple regions, particularly with the introduction of the next service change in 2024 with East West Rail Configuration State 1 (CS1) being two new trains per hour between Milton Keynes and Oxford.
- 5.1.3 The 2020 Spending Review named delivery of East West Rail as a priority and secured funding to deliver CS1. Delivery of Oxford Phase 2 by the planned Entry into Service date of December 2024 will provide the necessary interfacing infrastructure to ensure that the planned introduction of EWR services can take place, without adversely impacting existing passenger and freight services.
- 5.1.4 Timetable modelling has shown that the introduction of the EWR services will have a detrimental impact on the performance of rail services without the Phase 2 interventions being delivered

(C13). These interventions are necessary to enable the delivery of a resilient timetable across the wider Oxford area and should remain aligned for delivery by December 2024. This will minimise disruption to passengers and freight services as well as enable a smooth introduction of the new service in 2024 without any further disruption.

6 SCOPE OF WORKS

6.1.1 The works at Oxford Station comprised in the application for Prior Approval can be referenced in page 3 of the Planning Proof of Evidence. All of the land in the order as detailed in Section 3.2 of the Property Proof of Evidence is essential for delivery of the project.

7 FUNDING AND DELIVERY

- 7.2.1 The cost of acquiring the land comprised in the Order was fully authorised as part of the £68.8m committed as part of the outline business case (OBC).
- 7.2.2 The costs for implementing the works comprised in the OSP2 Project will be met from the Rail Enhancements Budget allocated to Oxford Phase 2 in line with the Rail Network Enhancement Pipeline policy.
- 7.2.3 Funding continues to be available for the OSP2 Project following the Spending Review 2020 and it has been identified as a priority within the Rail Enhancements Portfolio. This is as per the Funding Statement submitted with the TWAO application (NR5). The funding statement includes a letter from the DfT dated 12/05/2021 which sets out the funding availability for the scheme.
- 7.2.4 The OSP2 Project spans two railway investment periods: Control Period 6 (2019-2024) and Control Period 7 (2024-2029) with the anticipated allocation to be £119m in CP6 and £42m in CP7.
- 7.2.5 The final investment decision for all the remaining funding (£92.6m) will be submitted in January 2022 for a decision in April 2022 in accordance with the Rail Network Enhancements Pipeline (RNEP) process, to support the planned delivery of the scheme by December 2024. An FBC decision at this stage will provide the funder certainty on cost and programme for delivery of the works. The scheme has significant stakeholder support as well as a strong strategic and economic case.

RNEP sets out a new approach for rail proposals that require government funding. This approach creates a rolling programme of investment, focused on outcomes that provide benefits for passengers, freight users and the economy and moving government investment in enhancements away from a rigid 5 year cycle.

8 IMPACT OF NOT PROCEEDING

8.2.1 It should be recognised that the additional EWR services have been identified as a key priority to meet central government and Local Authority plans for growth across the whole of the Oxford-Cambridge Arc. East West Rail has received a Transport and Works Act Order from the Secretary of State for Transport to enable construction to commence on the western section of the route, which will enable the introduction of passenger services between Oxford, Bletchley and Milton Keynes (C14). The scheme is committed and construction has started. However, without addressing existing issues there will be insufficient capacity to support the delivery of this scheme and the following outcomes will result (C12):

- Passenger overcrowding will worsen at Oxford station, particularly in peak time. This will require an
 infrastructure intervention to alleviate congestion. The station will be non-compliant across four
 areas:
 - Platform clearance time.
 - Station entrance congestion.
 - Vertical transportation queueing onto the station footbridge.
 - o Emergency evacuation.
- Continued delay for passenger services awaiting platforms at Oxford and the performance impact of this on passenger journeys and the wider rail system.
- Unacceptable performance levels for the delivery of the 2024 service specification.
- Slow and unreliable road journey times in the area, particularly on the A34 and routes into Banbury, Bicester, and Oxford. As an example, the Oxfordshire Local Transport plan forecasts an additional 15,400 commuter trips into the area in and around Oxford between 2015 and 2031 (**D20**).
- Potential for continued delays to road and rail from bridge strikes by high vehicles.
- Additional complexity of the delivery of the Oxford Station masterplan, which requires a western entrance to deliver the improvements to the east.
- Reduced accessibility and connectivity to Oxford's West End, a major area of city centre regeneration, which has the potential to support 9,700 net additional jobs county-wide.
- Perpetuation of suppression of economic growth in Oxfordshire caused by road and rail transport networks that are at, or above, capacity.
- Barriers to sustainable travel options and continued safety concerns around Botley Road Bridge.
- Constraints to further increases in freight traffic through the Oxford Corridor.

9 CONSULTATION

- 9.2.1 The OSP2 project has consulted extensively with stakeholders. Overall feedback to the scheme has been positive and all stakeholders have been supportive of planned improvements to Oxford station. A letter of support has been written to the Chancellor of the Exchequer and the Secretary of State for Transport by the Future Oxfordshire Partnership on 27th September 2021 (NR32). The letter was signed by leaders of all local councils (Oxford City, Oxfordshire County and Local Districts).
- 9.2.2 The engagement plan included the following:

Who	Event	When	Objective	Status
			Brief on Phase 2 +	
	MS Teams presentation		wider programme	
Layla Moran MP	with Layla Moran's team	20/08/2021	strategy	Complete
			Brief on Phase 2 +	
			wider programme	
Oxford City Council Briefing	Teams meeting	15/01/2021	strategy	Complete
Councillors local to the				
scheme (Cripley Rd and Mill				
Street) - Colin Cook, Susanna				
Pressel, John Howson, James				
Fry, Louise Upton, Claire				
Keane - Oxford City			Brief on Phase 2 and	
Community Relations officer	Teams meeting	20/01/2021	wider programme.	Complete
Cripley Rd (via Residents	Letter drop and Teams		Share Phase 2 plans -	
Association)	Live Event	26/01/2021	understand and	Complete

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

	1		respond to	
			objections/issues.	
			Share Phase 2 plans -	
			understand and	
Mill Street (via Residents			respond to	
Association)	MS Teams Event	12/02/2021	objections/issues.	Complete
NR Design Review/Oxford			Feedback on	·
Design Panel	Workshop via MS Teams	24/03/2021	architectural designs	Complete
-			Brief on Phase 2 and	Complete - 10
			wider strategic	Councillors
Wider City/County Councillors	Teams meeting.	23/02/2021	context	attended
-			Feedback on	
			accessibility of designs	
			allowing incorporation	
NR Built Environment	Regular NR/BEAP		of any changes into	
Accessibility Panel (BEAP)	Meeting	18/02/2021	GRIP 5 design	Complete
Oxford Preservation Trust	Letter and Phone Call	31/03/2021	Inform of plans	Complete
Oxford Civic Society	Teams Meeting	10/02/2021	Inform of plans	Complete
·			Offer further	
			information/briefing if	
OxLEP	Teams Meeting	20/01/2021	required	Complete
Cherwell College	Teams Meeting	17/02/2021	Inform of plans	Complete
	Letter within 300m of		·	·
	site, Press Release,			
	linking to the Website,			
	followed by Teams Live		Inform wider public of	
Wider Public Engagement	Event. 3000 invites sent	25/03/2021	plans	Complete
			Inform industry that	
			formal public	
Oxford Rail Industry	!		engagement has	
Stakeholder Group	Teams Meeting	13/01/2021	commenced.	Complete
·	Ŭ		Inform of plans and	•
Cyclist Group Meetings -			gain feedback ahead	
Botley Road	Teams Meeting	04/08/2021	of detailed design	Complete

- 9.2.3 Specific feedback from these sessions has been addressed where possible. The first key area is the design of the Western Entrance building. Feedback from a number of stakeholders and stakeholder groups requested that changes be made to improve the architectural quality of the scheme. This led the project to commission a new building design to better fit with these aspirations. The new building is also positioned further from Cripley Road and gives the best opportunity to retain as many trees as possible adjacent to the north end of the building. This is especially important to the local residents of Cripley Road. Feedback to the new building design has been positive given the constraints that the project are working within.
- 9.2.4 The second significant change has been around the replacement of the current pedestrian bridge to the east of Botley Road Bridge, connecting the main station building to the car park. The original project proposal was to replace the existing bridge on a like for like basis. Feedback from both Oxford City and County Councils requested a wider architecturally improved bridge suitable for use by both pedestrians and cyclists. Given funding constraints this was not possible to implement within the timescales available. However, the project now proposes that the future eastern rail span over Botley Road bridge

- is delivered as part of the Oxford Phase 2 project and converted to a temporary footbridge to allow additional time for local partners to fund a final pedestrian cycle bridge.
- 9.2.5 In addition to this the project is also now proposing an increase to the number of cycle parking spaces to be provided on the west side of the station following feedback.
- 9.2.6 All of these examples show how Network Rail have taken onboard feedback and adjusted the scheme accordingly.
- 9.2.7 Further feedback received from stakeholder engagement activities will be addressed at detailed design stage, due to commence in December 2021. This includes the potential to optimise the design of the cycle/pedestrian routes through Botley Road and connections to the existing highway.
- 9.2.8 Extensive consultation has taken place within the rail industry. The project holds a monthly Project working group meeting with Passenger and Freight operators that run services via Oxford. Designs are shared and updates provided at this session. In terms of regulatory consents, Network Change for the scheme has been agreed and established. This is the process by which Network Rail agrees changes that are likely to have a material effect on the operation on the rail network, or of trains operated on the Network. Station Change is the other regulatory consent required to deliver the project. The project team have developed the scheme in collaboration with GWR as Station Facility Operator. Feedback has been included within the designs and the Station Change will be issued in 2022 due to the level of technical detail required to support the submission.
- 9.2.9 In parallel to this the Network Rail Property Team have held extensive engagement with all impacted landowners as part of the ongoing TWAO process which is covered within the Property proof of evidence.
- 9.2.10 A number of statutory bodies were also consulted as part of the Environmental Impact Assessment (EIA) and Prior Approval of the scheme. Details can be found in the Planning Proof of Evidence.
- 9.2.11 The project has completed a Diversity Impact Assessment (DIA) for the scheme (C1), updated in November 2021 (C4). This document anticipates the likely effects of the work on the characteristics protected by the Equality Act: age; disability; sex; gender reassignment; pregnancy and maternity; race; religion or belief; sexual orientation; and marriage and civil partnerships. The key characteristics identified as potentially being impacted by the scheme are age, disability and pregnancy/maternity. The OSP2 project will provide a number of significant improvements including a new entrance on the western side of the railway with step free access to the platforms, extended and new canopies and new passenger facilities on Platform 4/5 allowing better weather protection for passengers and therefore improved crowd circulation space. Platform 4/5 will also both be fitted with tactile pavers, which will complete compliant installation for the whole station, together with compliant gauging/stepping at the platform edges. Lighting and public address systems will be replaced to modern standards on platforms 4 and 5. The Botley Road pedestrian and cycle footways are also a step change in terms of accessibility improvement in the area. The Network Rail Built Environment Accessibility Panel (BEAP) have been consulted on the designs.

10 CONCLUSIONS

10.2.1 The OSP2 Project forms part of a package of rail enhancement schemes which deliver significant economic and strategic benefits to the wider Oxford area and the country. The enhanced infrastructure

in the Oxford area will provide benefits for both freight and passenger services, as well as enable further schemes in this strategically important rail corridor, including the introduction of East West Rail services in 2024.

- 10.2.2 The OSP2 Project is the critical enabler for any further service increases into Oxford and is required by December 2024 to provide the required infrastructure to successfully deliver and operate the 2024 train service specification, accommodating East West Rail and supporting wider rail proposals under the Oxfordshire Connect Programme.
- 10.2.3 The constrained Network Rail ownership in and around Oxford Station means that third party land is required to facilitate the Oxford Station improvements works. The addition of a new platform has a knock on effect in terms of the need to re-align Sheepwash Bridge and additional land take to facilitate that.
- 10.2.4 The Prior Approval application for the works comprised in the OSP2 Project is anticipated to be determined prior to the Public Inquiry. It is considered that the OSP2 Project complies with the relevant national and local planning policies and accordingly, that Prior Approval will be forthcoming.
- 10.2.5 The Department for Transport has set out its intention to the fund the OSP2 Project as is further set out in the funding statement.
- 10.2.6 Network Rail has complied with all statutory requirements relating to consultation and engagement in relation to the OSP2 Project including carrying out extensive consultation.
- 10.2.7 Overall, Network Rail considers there is a compelling case in the public interest for the powers sought to be granted as part of the Order. In relation to the objections and representations received in response to the Application for the OSP2 Project overall, Network Rail remains committed to working with objectors throughout the TWAO process to resolve as many of the concerns raised as possible and in order to secure withdrawal of objections prior to the Public Inquiry. Network Rail will provide evidence at the forthcoming public Inquiry to address the concerns raised and to support its position that the Order be made.

11 WITNESS DECLARATION

I hereby declare as follows:

This summary proof of evidence includes all facts which I regard as being relevant to the professional opinion which I have expressed and I have drawn the inquiry's attention to any matter which would affect the validity of that opinion.

I believe the facts which I have stated in this proof of evidence are true and that the opinions are correct.

THE NETWORK RAIL (OXFORD STATION PHASE 2 IMPROVEMENTS (LAND ONLY)) ORDER Proof of Evidence – Sponsor

Signature

05th November 2021

1. Mal