Peterborough City Council
Peterborough Station Improvements

Outline Business Case

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Fore

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1 Introduction

1.1 Context

Peterborough is one of the UK's fastest growing and best-connected cities in the UK. The City has one of the youngest populations in the UK and a diverse range of industries including manufacturing, distribution and technology. The City is forward thinking, with a compelling portfolio of regeneration projects already being delivered, including:

- ARU Peterborough – Phase Three (Living Lab) - A £30 million publicly accessible science centre is under construction and will deliver a 'Living Lab' designed to help stimulate and inspire more people into STEM (science, technology, engineering and maths) sectors.

- River Nene Pedestrian Bridge - £2 million of Government funding has been secured to help deliver a new footbridge which, by 2025, will link Peterborough's Embankment and Fletton Quay, providing a new local landmark and improving links for pedestrians and cyclists from Fletton Quays to the new University campus and Embankment area.

- The Vine - A £13 million development spread across two sites, delivering a refurbished library with space for exhibitions and business, alongside a new food, beverage and communal dining venue for the City.

- Activity Centre - A multi-million pound state-of-the-art Olympic standard climbing facility located in a country park, attracting visitors from the local area and beyond.

- Green Technology Centre - A new building at Peterborough College delivering an innovative curriculum to get students career ready in areas such as sustainable construction and electric vehicle manufacturing, sectors that are calling out for qualified future employees and offer high wages.

- Digital Incubator - A business incubator helping digital start-up companies thrive by delivering coaching, networking and access to investment.

In 2021, a Masterplan for the Peterborough Station Quarter (PSQ) area was commissioned to consider the high level feasibility of a phased redevelopment of Peterborough Station to establish a potential vision for the area and consider the wider landholding in and around the station.

Figure 1.1 shows the PSQ area as one seven key future development opportunities around the City.

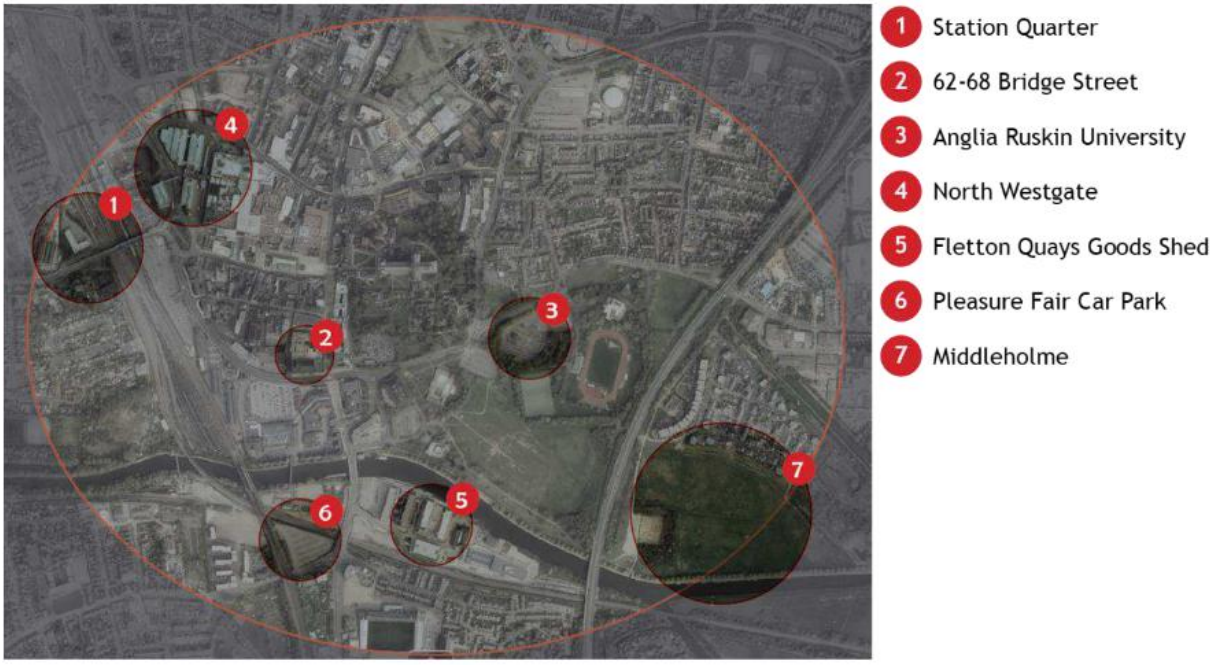

Figure 1.1: Key Peterborough Future Development Opportunities

Despite these opportunities, the district of Peterborough is identified as a 'Priority One' area in relation to the Government's Levelling Up Agenda and, following the COVID-19 pandemic, the dispersal of economic activity and hybrid working patterns have strengthened the case for investment in the City, as a geographic hub for access to London, the Midlands, the North East and Scotland. A recent survey of 500 UK businesses has found that 54% now have office or co-working space outside city centres, while 38% now have secondary locations in commuter areas such as Peterborough[1].

1.2 Station Quarter

The City is currently served by **Peterborough Station**, an important rail interchange on the East Coast Main Line (ECML), with an annual throughput of 5 million passengers pre-COVID-19 pandemic, including 960,000 passengers who use Peterborough as an interchange for services to other destinations[2].

Peterborough has twice hourly main line rail services to London Kings Cross in just under 50 minutes, York in 1 hour 15 minutes and Leeds in 1 hour and 30 minutes, thereby offering excellent connections for commuters and for businesses with customers and suppliers in London or the North and Scotland.

[1] https://www.theguardian.com/business/2023/oct/02/half-of-uk-firms-open-offices-outside-city-centres-study-claims
[2] Office of Rail and Road, Estimates of Station Usage, 2021

Peterborough is also a critical National Interchange (as defined by the 'Better Rail Stations' report in 2009), supporting the Government's Union Connectivity objectives of connecting the UK, for passengers seeking to travel to Scotland, Wales/West of England via Birmingham, North West England via Birmingham, East Anglia and East/West Midlands.

There is the opportunity to capitalise on the connectivity that the station offers, alongside the wider regeneration plans of the public and private sector, by investing in the PSQ area to improve the customer experience and accessibility of the station, unlock underutilised surface car parking land for development and enhance this key gateway.

This was the reasoning behind the production of the PSQ Masterplan, which was developed in partnership by Peterborough City Council (PCC), Cambridgeshire and Peterborough Combined Authority (CPCA), Network Rail and London North Eastern Railway (LNER). The Masterplan highlights the role of the station in underpinning a new quarter of the City surrounding it and improving access to, and facilities at, the station itself.

It was published in May 2021 and formed the basis for a bid to Round 2 of the Government's Levelling Up Fund (LUF) in August 2022 for funding for a first phase of the overall PSQ programme. The funding bid, for £47.85 million, was subsequently announced as being successful later in January 2023, subject to the completion of a successful business case for the investment.

Subsequent to the conditional award of funding, PCC has commissioned an update to the Masterplan and more development work on the initial phase of the PSQ programme that will be the subject of the LUF contribution, along with other complementary local funding contributions.

The updated Masterplan Framework, included at Appendix A, has confirmed that the essence of the PSQ programme is based on three key "moves" achieve the agreed strategic objectives, namely:

- Catalyse a new city quarter;
- Connect the station to the city; and
- Create an interchange fit for the future.

These "moves" are then supplemented by a series of "layers" that facilitate the desired outcomes:

- Connectivity (both active travel and vehicles);
- Public realm; and

- Development.

These concepts are illustrated in Figures 1.2 and 1.3.

Figure 1.2: PSQ Masterplan "Moves"

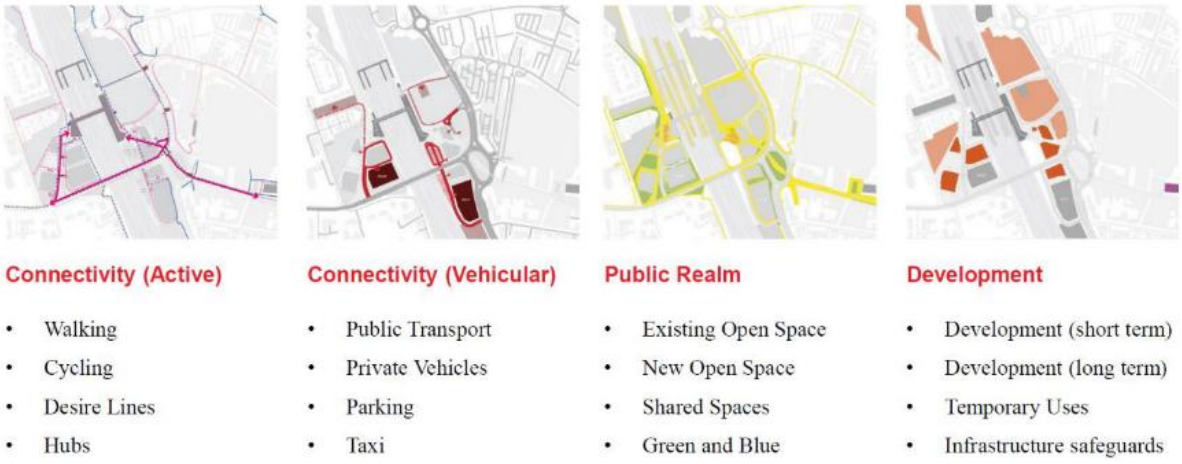

Figure 1.3: PSQ Masterplan "Layers"

The Masterplan Framework includes a schedule that sets out illustrative capacity of each of the development plots created across the PSQ programme area. Taken as a whole, the area has the potential to create around 4,000 new jobs, support at least 700 new homes and create just under 1 ha of new public realm.

The resulting vision for the Masterplan Framework is shown in Figure 1.4. Key to starting the delivery of this vision will be a catalytic set of interventions centred around Peterborough Station.

Figure 1.4: PSQ Masterplan Vision

1.3 Business Case

This document and its series of appendices comprise the Outline Business Case (OBC) for major enhancements and connectivity improvements to Peterborough Station as a first phase in delivering the PSQ programme.

The **Peterborough Station Improvements** project will as a minimum deliver:

- Provision of a new western entrance and a multi-storey car park (MSCP), improving access to the station for all modes and alleviating highway and passenger congestion;
- A refurbished eastern station building with more circulation space and a relocated entrance to provide a better customer experience and to reduce passenger congestion; and
- A new station square, linking to a high quality and accessible route to the City centre for active modes.

Figure 1.6 provides an overview the key components of the project. More detail is provided on Drawing Number PSQ-ARU-ZZ-ZZ-DR-C-00015, provided separately.

1. Western Station Entrance
2. Western Access
3. Multi-Storey Car Park
4. Surface Car Parking
5. Surface Car Parking (existing)
6. Accessible Parking (5%)
7. City Link (Queensgate Roundabout)
8. Station Square
9. Taxi / Pick-up & Drop Off
10. Cycle Parking
11. Meanwhile Use
12. Refurbished Eastern Station Entrance

Figure 1.6: Key Components of the Project

As a result of the project, some initial parcels of land will be freed up land for redevelopment, providing a start on the delivery of the wider PSQ programme.

1.4 Document Content and Structure

This document has been prepared in accordance with Transport Business Case guidance, the Levelling Up Toolkit and the Transport Appraisal Guidance (TAG) issued by the Department for Transport (DfT), as well as guidance issued by Network Rail. It also recognises the requirements of the Rail Network Enhancements Pipeline (RNEP), HM Treasury's Green Book and associated supplementary guidance on public sector business cases.

The remainder of the document is structured as follows:

- **Chapter 2: The Strategic Dimension**, which presents the rationale for undertaking the project by demonstrating the need for change, and how the intervention furthers the aims and objectives of not only PCC, CPCA and Network Rail, but also the Department for Levelling Up, Housing and Communities (DLUHC) and the DfT;

- **Chapter 3: The Economic Dimension**, which demonstrates the effects of the project in terms of value for money in relation to economic, social and environmental impacts;

- **Chapter 4: The Financial Dimension**, which explains how the project costs have been derived and illustrates how the project is affordable and fundable;

- **Chapter 5: The Commercial Dimension**, which demonstrates that the preferred way forward will result in a viable procurement and a well-structured set of contracts between the public sector and its service providers;

- **Chapter 6: The Management Dimension**, which demonstrates that robust arrangements are in place for the delivery, monitoring and evaluation of the project and that the necessary arrangements are in place for change control, risk management and benefits realisation.

2 The Strategic Dimension

This chapter of the OBC confirms the policy and business strategy alignment; examines the existing characteristics of the local area; identifies current and future issues; identifies a series of project objectives and sets out the options that have been considered.

The chapter draws on the latest Transport Business Case guidance (February 2022) and is structured as follows:

- **The Strategic Context (Sections 2.1 to 2.3)** – These sections consider the wider social and economic context, using evidence, to demonstrate how the project fits with the strategic priorities of the relevant organisations, wider government ambitions and local and regional strategies. They also describe how the investment interacts with planned and existing strategic portfolios, programmes and projects of the relevant organisations and for the local area.

- **The Case for Change (Sections 2.4 to 2.10)** – These sections outline the current situation, identifies a clear rationale for the project and provides a logical, objectively supported and evidence-based theory of change to illustrate how the SMART spending objectives will be achieved.

Figure 2.1 summarises the justification for the project, with each element explored in more detail in the following sections of this chapter.

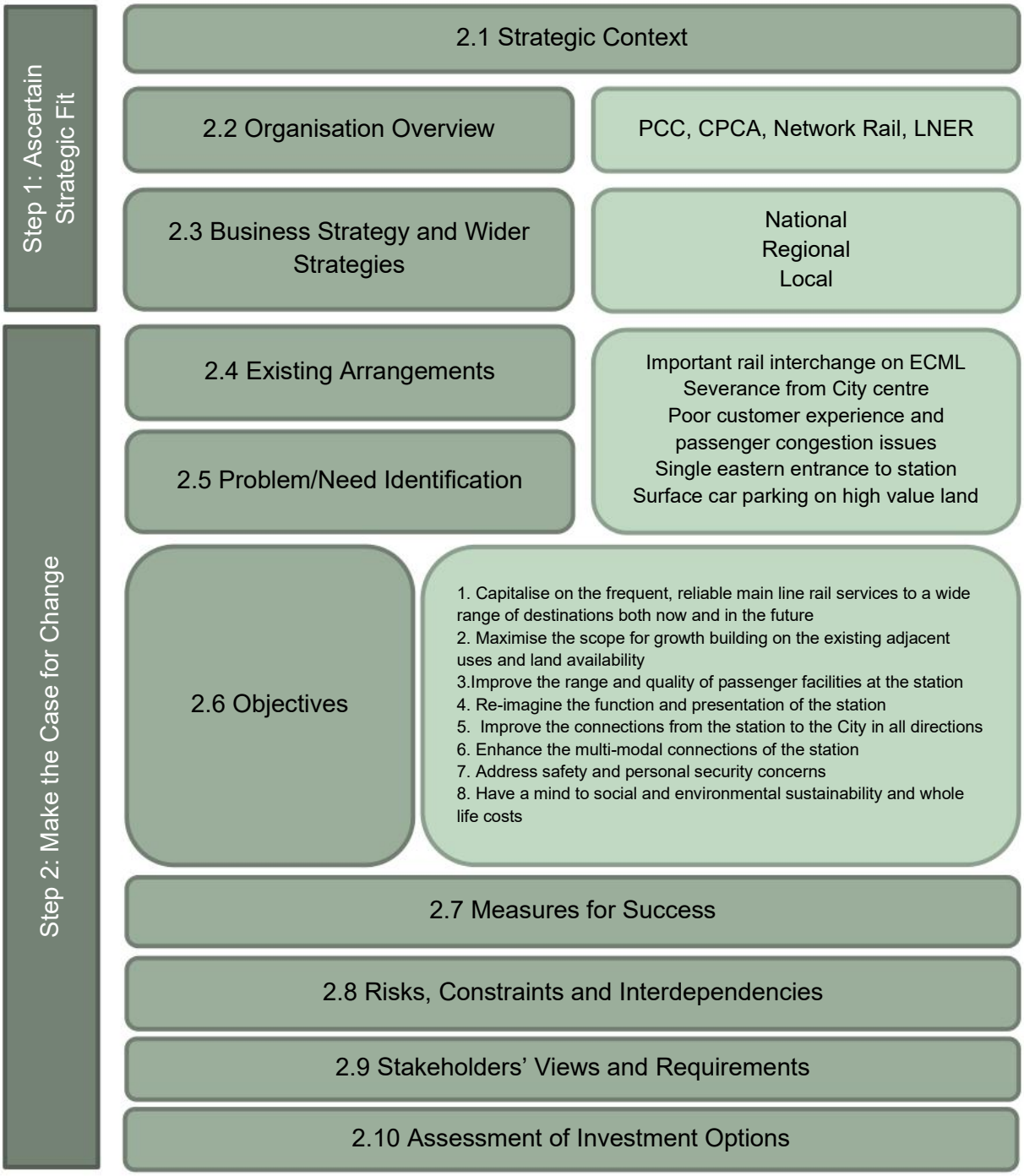

Figure 2.1: Summary of Strategic Dimension

2.1 Strategic Context

2.1.1 Cambridgeshire and Peterborough Context

The CPCA area is home to 850,000 people and covers an area of 340,000 hectares. It consists of six local authority districts – the cities of Cambridge and Peterborough, and the rural districts of East Cambridgeshire, Fenland, Huntingdonshire, and South Cambridgeshire. Its largest settlements include Cambridge in the south, Peterborough in the north-west, Wisbech to the north-east, Huntingdon to the west and Ely to the east[3].

Peterborough is the largest city in the CPCA area and is located approximately 125 kilometres (80 miles) north of London. Peterborough is an important regional centre, providing employment, shopping, health, education and leisure facilities for people across a wide catchment area.

Since 1998, Peterborough has also been designated as a Unitary Authority, which comprises the City of Peterborough itself and 25 villages set in countryside extending over an area of approximately 344 sq km.

Figure 2.2 shows the geographical location of Peterborough Unitary Authority area within the context of the CPCA area – in which Peterborough Unitary Authority area is represented by the red shaded area in the northwest corner. The indented image further shows the CPCA area within the context of England, with CPCA represented by the red shaded area.

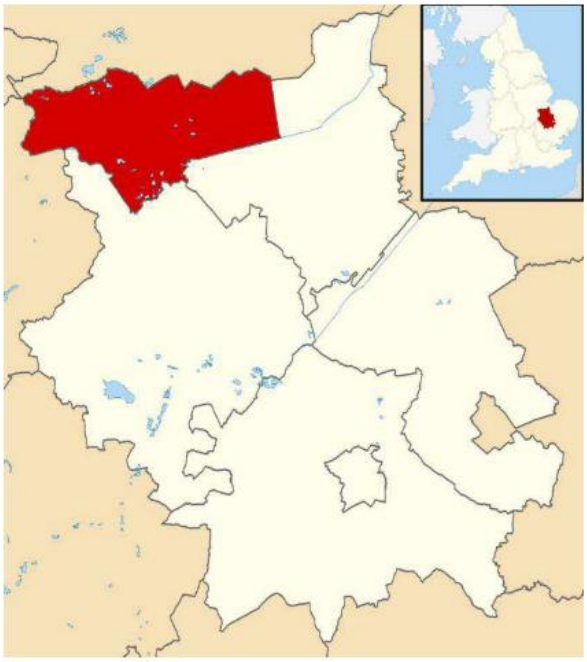

Figure 2.2: Geographical Location of Peterborough within a Regional and National Context

[3] Cambridgeshire & Peterborough Combined Authority, ALL AREAS: CAMBRIDGESHIRE, 2022

The city and its surrounding area have an important place in the history of Britain, with the Cathedral (shown in Figure 2.3) dating back nearly 1,000 years. Becoming a designated "New Town" in 1967, industrial and economic growth has driven Peterborough's expansion.

Figure 2.3: Peterborough Cathedral

The heart of the city is Peterborough Town Square, as shown in Figure 2.4. This square is the centre point of access to the Cathedral to the east, Cowgate/Peterborough Station to the west, Queensgate Shopping Centre to the north, and the River Nene to the south.

Figure 2.4: Peterborough Town Square

Peterborough is located on the River Nene, which flows west to east through the southern portion of the city. As shown in Figure 2.5, this river offers riverside walks and waterfront developments.

Figure 2.5: Peterborough Riverside

With predicted population growth, excellent positioning (a 50 minute commute to London King's Cross via the ECML and sitting in between the 'Golden Triangle' of the UK economy), and some of the most affordable land and property in the country, it has the potential to flourish.

2.1.2 Socio-Demographic Context

The total usual resident population of the Peterborough Unitary Authority area from the 2021 Census, is 215,700. This translates to an increase of 17.5% (32,100 residents) from the 2011 Census, when the usual resident population was 183,600[4].

Table 2.1 shows the population growth from 2011 to 2021 for Peterborough and other regions. It is notable that population growth in Peterborough is significantly higher than both the national average and regional average for the East of England, and it is recognised as one of the country's fastest growing areas. Cambridgeshire County Council (CCC) forecasts that the population of Peterborough will reach 230,650 by 2036[5].

[4] Office for National Statistics, Phase one of Census 2021 results – First Results, 2022
[5] Cambridge County Council, Population and Dwelling Stock Estimates, 2019, and 2019-Based Population and Dwelling Stock Forecasts, 2019-2036

Table 2.1: Population Growth for Peterborough and Other Regions

Geographical Region	Population Growth (2011-2021)
Peterborough	17.5%
Cambridgeshire	9.2%
East of England	8.3%
England	6.3%

The average age of a citizen in Peterborough is 43, with men averaging 42 years of age while women average 45 years of age. Only 14.6% of the population falls below the age of 15 compared to the national average of 17.4%[6], with most of the population of Peterborough between the ages of 15 and 64.

Figure 2.6 shows the age distribution for Peterborough as of 2021.

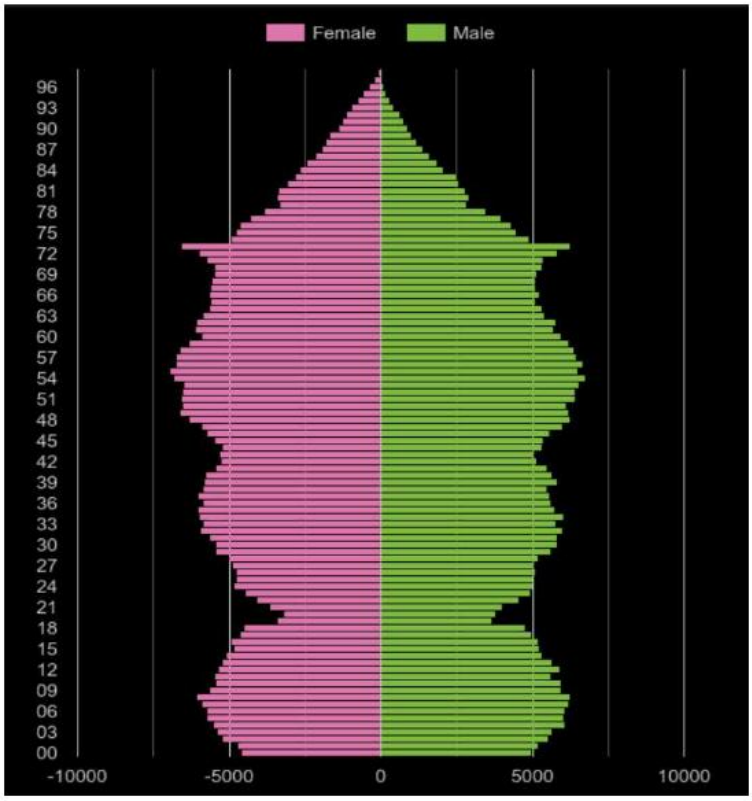

Figure 2.6: Peterborough Age Distribution[7]

[6] Office for National Statistics, Age Groups, 2021
[7] Plumplot, Peterborough Population Statistics, 2021

Table 2.2 shows the income deprivation of Peterborough compared with regional and national averages – this relates to the proportion of households encountering low income, and Peterborough performs poorly for this indicator in comparison with Cambridgeshire, the East of England and England nationally.

Table 2.2: Peterborough Income Profile[8]

Geographical Region	Income Deprivation
Peterborough	15.6%
Cambridgeshire	8.0%
East of England	11.4%
England	10.8%

According to the Index of Multiple Deprivation 2019, Peterborough is the most deprived area within the CPCA area. Barriers to Housing and Education, Skills & Training are defined as the most significant categories of deprivation for the area.

Figure 2.7 shows the breakdown of multiple deprivation in Peterborough according to each individual domain category.

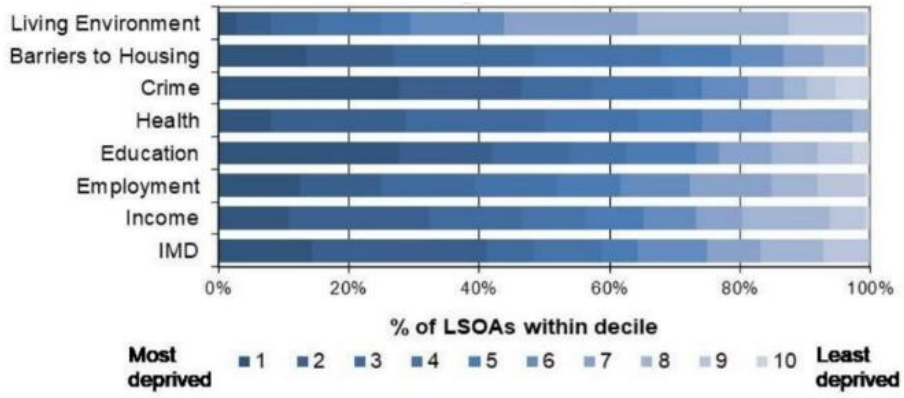

Figure 2.7: Peterborough LSOA National Decile Distribution by Individual Domain

In the context of the Levelling Up Agenda, Peterborough was categorised by the Government as a 'Priority One' area in the LUF Index used in Rounds 1 and 2 of the Levelling Up Fund specifically. The allocation of 'Priority One' status indicates that the Government deems Peterborough as a region in most need of investment through Levelling

[8] Office for National Statistics, English indices of deprivation, 2019

Up funding. This categorisation is primarily driven by the region's poor performance against the "Need for Economic Recovery and Growth" indicator, as Peterborough falls significantly below the national average in relation to Unemployment and Skills.

Whilst improving, the region lags behind the national average at every level of qualifications and educational attainment putting further pressure on meeting future demand for high skilled jobs – leaving significant future productivity gaps and hindering efforts to attract good paying jobs to the area. These issues are seeking to be addressed by the opening of the new Anglia Ruskin University (ARU) campus in Peterborough, which is a significant scheme that gained funding through the first round of LUF and complements this project.

In terms of the whole CPCA area, Peterborough is defined as having the second poorest health amongst its inhabitants with 5.1% in bad or very bad health[9]. Life expectancy is 78.2 years for men and 82.3 years for females, both of which are lower than the national average, which is 79.0 years for males and 82.9 years for females[10]. Additionally, the mortality rate from cardiovascular diseases and suicide rate is notably above the national average, both scoring in the highest quartiles[11].

Table 2.3 shows the breakdown of mode share for people travelling to work within Peterborough from the 2021 Census. Private vehicles comprise the largest proportion of mode share, with 64% of individuals declaring that they travel to work via this means. Public transport (train and bus trips) and active travel walking and cycling trips) respectively comprise only 6% and 15% of the total mode share.

Table 2.3: Peterborough Travelling to Work Mode Share[12]

Method of Travel to Work	Mode Share (%)
Private Vehicle	64
Private Vehicle Passenger / Car Share / Taxi	12
Train	1
Bus	5
Motorcycle	1
Bicycle	5
Walk	10
Other	2

[9] Office for National Statistics, TS037 - General health, 2021
[10] Office for National Statistics, National life tables – life expectancy in the UK: 2018 to 2020, 2021
[11] Public Health England, Local Authority Health Profiles, 2020
[12] Office for National Statistics, TS061 - Method used to travel to work, 2021

2.1.3 Economic Context

In 2018, the Cambridgeshire and Peterborough Independent Economic Review (CPIER) identified three interdependent subeconomies the CPCA area[13]. One of these is Peterborough which features a diverse mix of sectors and is made up of 6,840 enterprises (as of 2018). As of 2021, the local Peterborough economy produced a Gross Added Value (GVA) per head of £31,748, compared to a national average of £30,443[14].

Peterborough's city centre economy is classified by Centre for Cities as weak because of low levels of high-skilled employment in exporting industries. Peterborough has a relatively low share of office space in its core (which is dominated by the retail sector), especially when compared to strong cities with strong centres. There is an evidenced shortage of office supply within Peterborough. Barnack Estates UK Ltd published the "Peterborough Employment Land Review" in 2021, which found that more site opportunities are essential to meet market demand. This review found that two years after the adoption of the Peterborough Local Plan 2019, only 29% of the allocated supply remains available.

Additionally, this lack of office supply creates the risk of inward investment and business expansion opportunities being lost to Peterborough. It is in this context that Centre for Cities have noted that to improve Peterborough's core, "policy should focus on creating more attractive places where high-skilled, high-wage businesses can be based". The land close to the station is a prime place to deliver this given its connectivity as long as the station itself can provide the capacity and facilities required of a modern gateway.

Over the last 10 years Peterborough has grown from the bottom quarter to become the top four player within the UK's "Golden Logistics Triangle" attracting thousands of new jobs into and around the city. But not everybody in the city has benefitted from this growth as most of the service jobs (>50%) are still low skilled and today Peterborough has the highest number of people in employment and also receiving universal credit.

More than a third of all children in Peterborough are in poverty (their household is living on less than 60% of the median wage after housing costs). This is nearly 18,000 households and the current pressures on household finances as a result of inflation are also likely to exacerbate the situation.

In 2019, Peterborough operated at a productivity level of £34.5 per hour worked, falling below the national productivity average of £36.3 per hour worked[15]. Additionally, in 2021 the median gross weekly pay in Peterborough was £569.50, falling below the national average of £608.50[16]. However, this is somewhat countered by the lower average housing prices in Peterborough as compared to the national average and the East of England.

[13] Cambridgeshire and Peterborough Independent Economic Review, Final Report, September 2018
[14] Office for National Statics, Regional gross value added (balanced) per head and income components, 2023
[15] Office for National Statistics, Subregional Productivity July 2021, 2021
[16] Local Government Associate, Median gross weekly pay of employees working in the area (workplace-based) in Peterborough, 2021

By employment, Peterborough's largest sector is Business Administration and Support Services, with Professional, Scientific and Technical the largest sector by number of businesses[17]. It has been identified as a fast-growing hub of green engineering and manufacturing, part of the supply chains of the Midlands and the energy and agri-food sectors of the East of England. It also ranks 13th among UK cities for patents registered per capita. Additionally, Peterborough experienced a business population growth of 22% from 2016 to 2021, as compared with the national average of 9%[18]. This suggests the potential of the region as a burgeoning economic hub.

Despite these positives, Peterborough has lost over 500,000 sq ft of office stock since the 2007 recession through permitted residential development. The remaining available stock is often outdated, and Grade A supply is extremely limited, which impacts on the ability of Peterborough to attract high skilled jobs. Peterborough has been hard hit by the COVID-19 pandemic. Retail anchor John Lewis has departed from the city, leaving an imprint on the economic and social landscape. The Queensgate Shopping Centre underwent a £60 million extension, completed in 2022.

Unemployment levels in Peterborough tend to be marginally higher than those for the UK as a whole, but average figures mask particularly high pockets of unemployment, with a concentration in some inner city wards where other measures of deprivation are also higher than average.

Peterborough has 104,000 economically active people (defined as those between the ages of 16 and 64). Of these, approximately 98,900 are in employment and 4,600 are unemployed. Table 2.4 shows the unemployment rate of Peterborough as compared with Cambridgeshire, East England, and Great Britain as a whole. Peterborough has a slightly higher unemployment rate than these regions.

Table 2.4: Peterborough Unemployment Profile[19]

Geographical Region	Unemployment Rate
Peterborough	4.4%
Cambridgeshire	2.5%
East of England	3%
Great Britain	3.6%

[17] Opportunity Peterborough, Peterborough Economic Intelligence Report, January 2019
[18] Nomis Official Labour Market Statistics, UK Business Counts - enterprises by industry and employment size band, 2022
[19] Nomis Official Labour Market Statistics, Labour Market Profile – Peterborough, 2023

As of 2021, there were approximately 110,000 employee jobs in Peterborough. During this same period, Peterborough recorded a job vacancy rate (for local government jobs) of 30%, as compared to the national average of 9%[20]. This suggests that there is a need to attract talent into the region. Additionally, 58.6% of residents in Peterborough have attained qualification of HVQ3 and above, falling slightly short of the national average of 61.5%.

The Government Hubs Programme, which promotes regional growth through basing civil servants outside London, has seen the relocation of some government services to Peterborough. In March 2023, a new Government Hub opened with space to house 1,000 civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs, at the Fletton Quays development in the city centre. This is a significant step in instigating further relocation of services and businesses from London to Peterborough.

In addition, ARU Campus Peterborough, a CPCA and PCC initiative, is a new £30 million 2,000 student university that opened in September 2022, with an ambition to offer courses for up to 12,500 students by 2032. The aim of ARU Peterborough is to work with employers as co-creators in developing and delivering the curriculum, which will be led by student and employer demand. The vision is to deliver a step-change in life chances for people in Peterborough and beyond, helping to improve and retain the skills of people in the region while also bringing additional opportunity and prosperity to the area. These aforementioned projects will complement each other and the PSQ programme as they all strive to significantly raise the quality of facilities in Peterborough and attract talent to the region.

2.1.4 Environmental Context

Economic welfare and social wellbeing are closely linked to the quality of the environment. PCC has a long-standing environmental track record since it was named as one of four UK 'Environment Cities' in the early 1990s. In May 2017, PCC developed Environment Action Plans (EAP) for both the Council's own activities and those of the city and subsequently in July 2019, PCC declared a climate emergency, committing to make the council's activities net-zero carbon by 2030, and to also help Peterborough become a net-zero carbon city by 2030.

Despite these ambitious plans, the region suffers from various environmental issues. Air quality is a significant environmental threat to human health in Peterborough. $PM_{2.5}$, fine particulate matter of 2.5 micrometres or less in diameter, is the most dangerous pollutant because it can penetrate the lung barrier and enter the blood system, causing cardiovascular and respiratory disease and cancers. The World Health Organisation (WHO) states that annual average concentrations of $PM_{2.5}$ should not exceed 5 $\mu g/m^3$, while 24-hour average exposures should not exceed 15 $\mu g/m^3$ for more than 3-4 days per year[21].

[20] Local Government Association, Vacancy rate in Peterborough, 2022
[21] World Health Organization. WHO global air quality guidelines. Particulate matter ($PM_{2.5}$ and PM_{10}), ozone,

In 2019, the area surrounding Peterborough Station recorded an average annual $PM_{2.5}$ level of 10.13 µg/m^3 [22]. This value dropped to 7.56 µg/m^3 in 2020, largely due to the reduction in activity due to the COVID-19 pandemic. While these values fall under the UK legal annual limit of 25 µg/m^3, both years recorded $PM_{2.5}$ values exceeding WHO recommended safe guidelines.

Climate change is one of the main environmental threats currently facing the UK. While it is notable that overall emissions in Peterborough have been on a downward trend in recent decades, the Local Authority had estimated greenhouse gas emissions of 1,178kt CO_2e in 2021[23]. This is an increase from 2020, a year where figures were affected by COVID-19, but a slight decrease from pre-pandemic levels in 2019. Emissions are largely driven by high road transport activity and four large industrial installations in the region. Road transport alone contributes 32.5% of Peterborough's total emissions.

Table 2.5 shows a comparison of Per Capita Emissions (in tonnes) for Peterborough and other regions in England. Peterborough exhibits higher Per Capita Emissions than London and is around the same as the national average. While these discrepancies can be attributed to differing population densities, the presence of industry, and the varying availability of urban transport systems, it is apparent that Peterborough is in a position to improve its standing against the national benchmark. Making improvements is also vital to meet PCC's target of making Peterborough a net-zero carbon city by 2030.

Table 2.5: Comparison of Per Capita Emissions

Geographical Region	Per Capita Emissions (tonnes CO_2e)
Peterborough	5.4
Cambridgeshire	10.0
London	3.4
England	5.5

In light of these challenges, CPCA commissioned an independent report on climate change in the region. This highlights the higher than average per person emissions in the region and recognises that the region is at a higher risk of climate change related events such as flooding, high summer temperatures, and water shortages. As such, the report

nitrogen dioxide, sulphur dioxide and carbon monoxide. 2021.
[22] Department for Environment Food & Rural Affairs. UK AIR, Air Information Resource. 2021.
[23] Department for Energy Security and Net Zero, UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021

recommends urgent action is taken to reduce the impacts through measures such as investment in green infrastructure and sustainable transport[24].

2.2 Organisation Overview

The project and wider PSQ programme has been developed by a partnership of organisations. These organisations are summarised in Table 2.6, along with their general functional responsibilities and strategic priorities.

Table 2.6: Organisation Overview for the PSQ Programme

Organisation	Role	Responsibilities	Strategic Priorities
Peterborough City Council (PCC)	• Project promoter	• Local Authority	• Drive growth, regeneration and economic development in Peterborough • Keep communities safe, cohesive and healthy • Achieve the best health and wellbeing for the city
Cambridgeshire and Peterborough Combined Authority (CPCA)	• Project promoter/ funding conduit	• Combined Authority	• Double the size of the local economy • Accelerating house building rates to meet local and UK need • Deliver outstanding and much needed connectivity in terms of transport and digital links • Provide the UK's most technically skilled workforce • Transform public service delivery to be much more seamless and responsive to local need • Grow international recognition for our knowledge based economy • Improve the quality of life by tackling areas suffering from deprivation
Network Rail	• Project supporter/ technical assurance	• Railway infrastructure owner, operator and infrastructure manager	• Deliver best possible service to passengers and freight customers

[24] Cambridgeshire and Peterborough Independent Commission on Climate, Fairness, nature and communities: addressing climate change in Cambridgeshire and Peterborough, 2021

Organisation	Role	Responsibilities	Strategic Priorities
London North Eastern Railway (LNER)	• Project supporter/ operational assurance	• Railway service operator and Station Facility Owner under FRI lease	• Provide the highest customer service to passengers
Department for Levelling Up, Housing and Communities (DLUHC)	• Policy Lead	• Supports communities across the UK to thrive, making them great places to live and work.	• Raise productivity and empower places so that everyone across the country can benefit from levelling up (cross-cutting outcome) • More, better quality, safer, greener and more affordable homes
Department for Transport (DfT)	• Project Funder/ Project Assurance/ Policy Lead	• Sets the strategic direction for the rail industry in England and Wales – funding investment in infrastructure through Network Rail	• Boosting economic growth and opportunity • Building a One Nation Britain • Improving journeys • Safe, secure and sustainable transport

2.3 Business Strategy and Wider Strategies

The project and wider PSQ programme fits within a wider national, regional, and local strategic context. It is important to identify and explore the relevant policy documents relating to the project, as this sets the strategic focus and helps support the need for the project.

Figure 2.8 summarises these relevant strategy documents, at a national, regional, and local scale, along with the relevant document owner for the former. The project is aligned with the aspirations of these documents.

In the following sections, the relevance of these strategy documents is summarised in relation to the project and wider PSQ programme.

Figure 2.8: Relevant Strategic Documents at National, Regional and Local Levels

2.3.1 National

UK Central Government

The project supports the UK's **'Build Back Better: our plan for growth'**, which superseded the post Brexit Industrial strategy. This new strategy, released in 2021, is primarily centred around ensuring that no region is left behind as the Government plans to deliver growth and high-quality jobs.

This project is also closely linked to the **Levelling Up** policy. Levelling Up is Government policy that primarily relates to the spreading of economic and social opportunities more evenly across the country. A Levelling Up White Paper published in February 2022 sets out how the Government will spread opportunity more equally across the UK and this is now in the Bill stage in Parliament. Round 2 of the Levelling Up Fund has awarded a share of £2.1

billion to 111 areas, including around £48 million to Peterborough for this project. This report outlines 12 key missions that set the medium-term ambition of the UK Government and are an anchor for the expectations and plans of the private sector and civil society.

Table 2.7 outlines four of these missions which are most relevant to the PSQ programme. This project would support a levelling up of opportunities both in the locale of Peterborough and wider commuting catchment but also more broadly through the importance of Peterborough in terms of rail connectivity.

Table 2.7: Relevant Levelling Up Missions to PSQ Programme

Focus Area	Mission	Relevance to PSQ Programme
Living Standards	By 2030, pay, employment and productivity will have risen in every area of the UK, with each area containing a globally competitive city, and the gap between the top performing and other areas closing	This project will support economic growth and levelling up in Peterborough through the creation of a revitalised public transport gateway to the city (complementing other key investments) and the unlocking of land around the station for commercial and residential development – the proximity by rail to London will provide the opportunity for higher value jobs to be created in the city, improving of life chances of those in neighbouring deprived communities.
Transport Infrastructure	By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing	This project is primarily aimed around improvements to Peterborough's transport infrastructure and raising the standards of the facilities in and around Peterborough station to the sort of levels seen at London rail stations such as King's Cross, whereas without intervention, certain parts of the station will be operating at the lowest possible level of service by 2042, due to passenger congestion, whereas this project will improve journey quality, passenger facilities, sustainable transport connections and provide a new western access to the station.
Health	By 2030, the gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years	This project will deliver improvements to active travel infrastructure and reduce local congestion around the station, which will result in health benefits arising increased levels of exercise and improved air quality.
Wellbeing	By 2030, well-being will have improved in every area of the UK, with the gap between top performing and other areas closing	The improved active travel connections and public realm around the station will result in wellbeing and quality of life benefits expected for users of the station and the residents of Peterborough, relating to improved journey quality, safety and accessibility and a reduction

Focus Area	Mission	Relevance to PSQ Programme
		in severance between the rail station and the city centre.
Pride in Place	By 2030, pride in place, such as people's satisfaction with their town centre and engagement in local culture and community, will have risen in every area of the UK, with the gap between top performing and other areas closing	This project will provide a new gateway to Peterborough, through the way of improved station facilities, improved public realm surrounding the station, and improved active travel connections to the city centre, contributing to an increased pride in place for the residents of Peterborough, whilst the station buildings (both new and existing) will be more modern in design and representative of a modern, youthful city such as Peterborough.

Additionally, Figure 2.9 sets out a logic map demonstrating the strategic alignment of levelling up priorities from policies through to the PSQ programme. This highlights the further reach of the levelling up agenda beyond the Levelling Up Bill, and how it integrates with wider policies and programmes.

Land values for housing within the PSQ area are lower than the city average, the retail market has been hit hard due to the pandemic resulting in retail anchor John Lewis leaving the city and office rents are circa £17/sq ft making speculative development unviable. As previously mentioned, Peterborough has lost over 500,000 sq ft of office stock since the 2007 recession through permitted residential development conversion. The remaining available stock is circa 20 years old and Grade A supply is extremely limited, which is perpetuating the city's failure to attract high skilled jobs.

The delivery of an enhanced rail station, public realm and improved multi-modal connectivity will act as a catalyst to address the current market failures and support further development phases and inward investment to the city.

It also aligns with the objectives set out in the '**Homes England Strategic Plan 2023 to 2028',** centring around supporting levelling up and regeneration. As well as creating the homes people need, it focuses on the creation of vibrant and successful places through regeneration. A key part of this plan is through the unlocking of strategic sites that can allow for the delivery of mixed-used development. It supports achieving these aims through the development of masterplans, such as that developed for the PSQ programme.

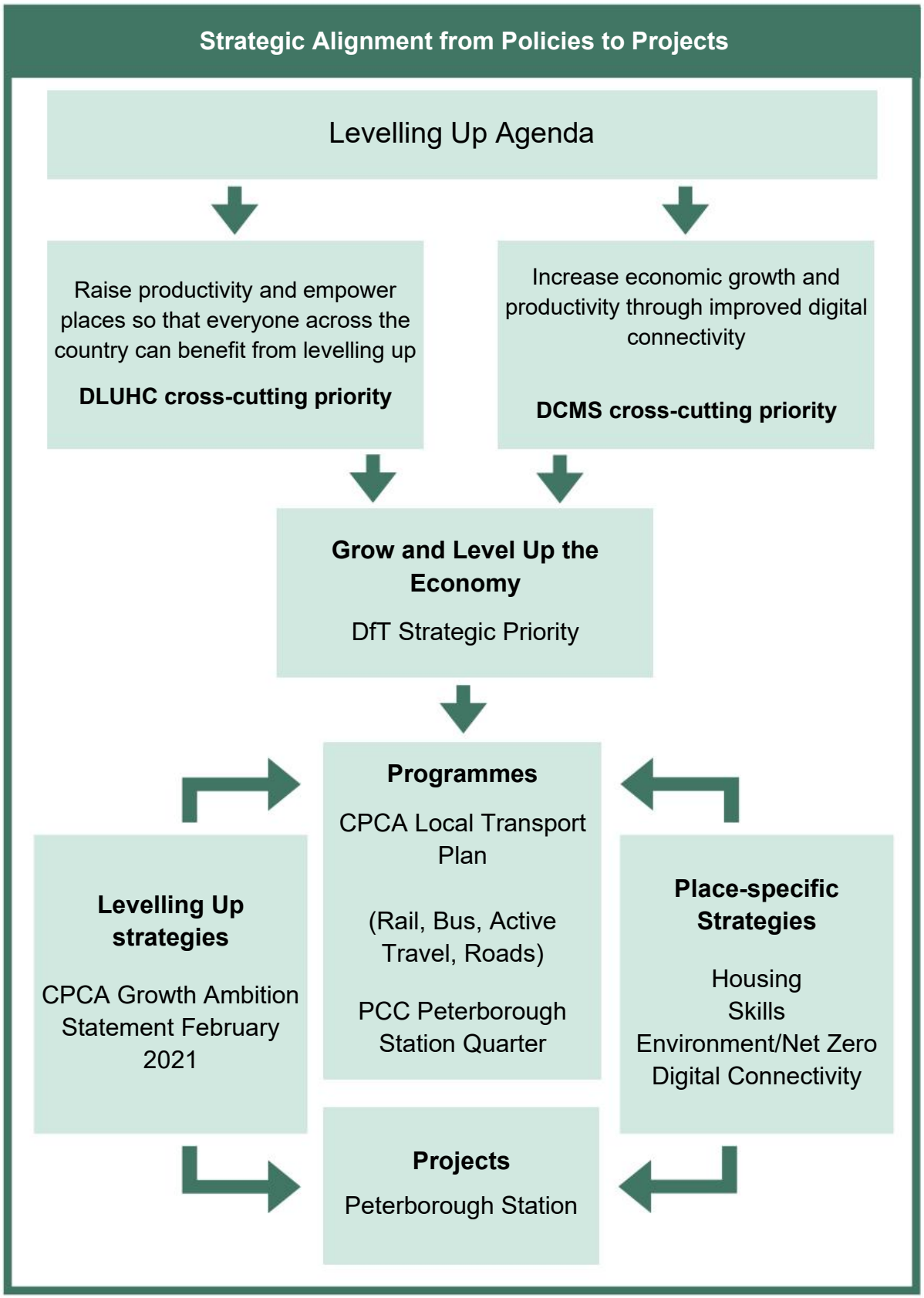

Figure 2.9: Strategic Alignment of Levelling Up Priorities to PSQ Programme

This project further supports the UK's pledge to bring all greenhouse gas emissions to **net zero by 2050** through encouraging modal shift to rail. The **'Net Zero Strategy: Build Back Greener'**, released in 2021, further iterates this pledge and establishes a strategy for its success. This document outlines numerous commitments as a part of this strategy, the following of which are directly related to this project:

- Increase the share of journeys taken by public transport, cycling and walking;
- Support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament;
- Invest £2 billion in cycling and walking, building first hundreds, then thousands of miles of segregated cycle lane and more low-traffic neighbourhoods with the aim that half of all journeys in towns and cities will be cycled or walked by 2030.

This project is aligned with the **Clean Growth Strategy**, published in 2017, outlining the Government's strategy towards growing the national income while cutting greenhouse gas emissions. It is particularly aligned with the policy of "Encouraging Low Carbon Alternatives to Car Journeys", as the Government proposes to continue to "invest in public transport, and help people to cycle, walk or travel by bus or train."

Additionally, this project has been developed in alignment with the **Clean Air Strategy**, published in 2019, outlining how the Government will tackle all sources of air pollution. This project supports the strategic direction for transport, which accelerates the shift from road to rail, supports more active modes of travel, and improves local air quality.

Department for Transport

The **'DfT Outcome Delivery Plan: 2021 to 2022'** sets out how DfT will achieve their strategic priorities as the country recovers from the COVID-19 pandemic.

Table 2.8 outlines the key priority outcomes from this plan along with their alignment to the PSQ programme.

Table 2.8: Priority Outcomes from 'DfT Outcome Delivery Plan: 2021 to 2022'

Priority Outcomes	Relevance to the PSQ Programme
Grow and Level Up the Economy: Improving connectivity across the UK and growing the economy by enhancing the transport network, on time and on budget	This project supports levelling up through the overarching aim to revitalise the economy of Peterborough, facilitated by an improved transport gateway to the City and District
Building confidence in the transport network as the country recovers from COVID-19 and	This project enhances the journey experience for users of Peterborough Station through the significant improvements of facilities, with a

Priority Outcomes	Relevance to the PSQ Programme
improving transport users' experience, ensuring that the network is safe, reliable, and inclusive	focus on safety, inclusivity and connections with active travel infrastructure
Tackling climate change and improving air quality by decarbonising transport	The PSQ programme can help tackle climate change through the promotion of local and national rail transportation and incorporation of low carbon building technologies. Local air quality can be improved through the optimisation of the adjacent traffic network and improved interfaces with sustainable modes of transport

The **'Decarbonising Transport Plan: A Better, Greener Britain'**, released in 2021, is an overarching document outlining how the UK plans to reduce the environmental impact of transport, primarily through contributions to climate change and air pollution.

The Peterborough Station Enhancements and Connectivity Improvements Project relates to Part 2a 'Decarbonising our railways', through the following commitments:

- We are building extra capacity on our rail network to meet growing passenger and freight demand and support significant shifts from road and air to rail.

- We will improve rail journey connectivity with walking, cycling and other modes of transport in line with the transport hierarchy incorporating recent changes to the Hierarchy of Road Users for changes applied from January 2022.

The project will achieve these commitments through the increased passenger capacity within the station and platforms, and also through the provision of improved cycle and walking facilities and the connections from the city centre to the station.

The project also significantly relates to Part 2b 'Delivering decarbonisation through places'. This section of the document outlines plans to support *'levelling up across the UK, reducing congestion in areas where it is a barrier to productivity, bringing extra capacity to greener public transport, improving health and wellbeing by making places more pleasant to live and work in and supporting jobs to deliver future transport needs.'* Through the reduction of local congestion in Peterborough city centre, local air quality will improve, providing health and wellbeing benefits to residents and commuters. Additionally, improved bus and active travel connections will encourage modal shift from cars.

Furthermore, the project is supported by following commitment:

'We will support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament, enabling local authorities to invest in local priorities including those related to decarbonisation such as reducing congestion and improving air quality.'

In relation to the policy document **'Connecting people: A Strategic Vision for Rail'**, this project directly relates to 'Section 2 - An expanded network: Opening routes to unlock housing and development'. Section 2.24 identifies a renewed strategy where *'the focus is on innovative opportunities around stations, where regeneration schemes can improve the passenger experience with high quality urban design of appropriate density, and integration of different transport modes. This could also potentially generate additional housing opportunities in high-demand locations.'* This is closely tied to the vision of the Peterborough Station project.

Additionally, in section 2.49, DfT recognises it can be challenging to make a case for transport projects that enable new housing developments compared to projects where the national economic benefits may well be higher. To accommodate the decision making process for these projects, DfT have requested clear strategic focus and good evidence about the opportunities being created and the benefits delivered.

This project can further be subject to 'Section 3 – A better deal for passengers'. Section 3.23 under 'A more accessible railway' acknowledges the needs of individuals with disabilities and outlines how the railway system should provide maximum accessibility for the various types of disabilities. This project will address this through minimising the effort that all people will require to make a journey, from the ease of connections to the city centre through to the additional entrances and expansion of space/facilities within the station complex.

The **'Integrated Rail Plan (IRP) for the North and Midlands'** published in November 2021 sets out a blueprint for the development of train services across the Midlands and North and towards Scotland and London. Much of the content of the plan has been superseded by the announcement in October 2023 that HS2 north of Birmingham has been cancelled by Government, with funding being diverted to other transport projects in the North and Midlands (see Network North below).

However, the IRP is still relevant in the context of Peterborough as it identifies a comprehensive package of upgrades on the ECML to further improve line speed increases and seat capacity. These plans remain despite the cancellation of the remainder of northern leg of HS2. The Government states that they will ensure digital signalling is delivered as well as an upgrade of the power supply to allow longer and more frequent trains, increase maximum speeds up to 140mph in some places, improve the capacity of stations, and remove bottlenecks such as flat junctions and crossings. This is expected to reduce journey times from London to York and Darlington by up to 15 minutes and to other parts of the North East and Edinburgh (subject to stopping patterns) by around 25 minutes.

It will also reduce journey times from London to Leeds by around 20 minutes. The project therefore aligns with the IRP proposals.

Published in October 2023, the **'Network North'** policy paper sets out a £36 billion plan for improvements to the rail network following the cancellation of the Birmingham to Manchester leg of HS2. Included in this package is an upgrade to the bottleneck at Ely Junction, with this improvement allowing for a doubling of passenger services on the Ipswich to Peterborough routes.

The project also aligns with the approach set out in DfT's **'Rail Network Enhancements Pipeline (RNEP)'**, which outlines the requirements for rail enhancements requiring government funding. The project is directly aligned with three of the RNEP's key priorities, as shown in Table 2.9.

Table 2.9: Key Priorities from 'Rail Network Enhancements Pipeline'

Priority	Relevance to Peterborough Station Enhancements
Priority 1 'Keeping people and goods moving smoothly and safely'	This project will ease crowding at Peterborough station and reduce local journey times to access the station.
Priority 3 'Offering more: new and better journeys and opportunities for the future'	This project enhances the journey experience for users of Peterborough station and will also support economic and housing growth within Peterborough.
Priority 4 'Changing the way the rail sector works for the better'	This project will support multifunctionality at Peterborough station through the addition of new commercial office spaces and creation of new jobs for railway staff. It is expected that 45 new jobs will be generated within the station complex.

In 2021, the UK government released the document **'Great British Railways: The Williams-Shapps Plan for Rail'**. This document announced the creation of a new public body, Great British Railways, which will own rail infrastructure, receive the fare revenue, run and plan the network and set most fares and timetables. Network Rail will be absorbed into this organisation, as will many functions from the Rail Delivery Group, DfT and certain aspects of the existing Train Operators. This document further outlines the future strategy for Great British Railways. Table 2.10 shows the particular relevance of key strategic elements from this report to the project.

Table 2.10: Strategic Elements from 'Great British Railways: The Williams-Shapps Plan for Rail'

Strategic Element	Relevance to Peterborough Station Enhancements and Connectivity Improvements
Chapter 3 – Integrating the railways	
15. Opportunities to better unlock housing, local economic growth and social value will be explored. Our railways also provide connections that are fundamental to good placemaking and rail links can be a catalyst for regeneration and development. Great British Railways will work with partners to support better development near stations and share best practice, using the essential understanding of how to develop sites alongside operational railways that it will take on from Network Rail.	The project is largely centred around regenerating the urban area of Peterborough/surrounds and unlocking housing development on underutilised land.
Chapter 5 – A new deal for Passengers	
34. Customer service at stations will be modernised, with one-team working expanded across the network.	The modernisation of Peterborough station is aligned with Great British Railways vision for enhanced customer service. This station plan aims to embrace new styles of multi-skilled workforces that not just provides efficiency in delivery but also flexibility for changes in customer for those using Peterborough station as an interchange point in their ongoing journeys..
39. Journeys across rail, bus, tram and bike will become seamless in the future.	The project will improve rail connections to the bus network (through ease of pedestrian access) and active transport connections (through improving cycle/foot paths and cycling parking) while retaining the ability for the use of the network to grow.
40. Getting to the station on a bike and taking it on a train will be made easier.	The project will provide improved cycle connections to the station, and cycle parking at all station entrances.

DfT released the **'Inclusive Transport Strategy'** in 2018, which sets out the Government's plans to make the transport system more inclusive, and to make travel easier for disabled people.

The project will offer the opportunity to address Objective 4 of this strategy - 'Inclusive Physical Infrastructure – taking steps to ensure that vehicles, stations and streetscapes are designed and built so they are inclusive and easy to use'. The expansion of passenger space within the station will accommodate the needs of all passengers and will meet with the Network Rail Station Planning Guidance Section 3.4 (March 2021).

DfT released the **'Cycling and Walking Investment Strategy'** in 2017. This strategy sets out the Government's ambition to make walking and cycling the natural choices for shorter journeys, or as part of longer journeys. The project will support the key objectives to increase cycling and walking activity, through the provision of cycling infrastructure, the new civic realm and enhanced connections to the city centre.

This project aligns to the DfT strategy document, **Gear Change: A bold vision for cycling and walking**, released in 2020. A key commitment from this document is to *"make sure the railways work better with cyclists"*, highlighting how the Government will improve the connections between the railway and bicycles, matching the convenience of the car. This project strives toward this commitment, as bicycle connections between the station and surrounding areas are improved.

DfT released **'Bus Back Better: National Bus Strategy for England'** in 2021. This strategy outlines how bus services should be 'integrated with other types of transport in their area such as connectivity to train stations, making journeys simple and stress-free for customers. This strategy will be reflected in this project through the consideration of bus interchange opportunities as part of the design process.

Network Rail

The Peterborough Station Enhancements and Connectivity Improvements project aligns with the findings from the **'East Coast Main Line Route Study'**, published in 2018. Peterborough is identified as a significant interchange between 'ECML South: London to Peterborough' and 'ECML Central: Peterborough to Doncaster and Leeds'. Additionally, the route study cites the importance of *'supporting growth in the long-distance market by enabling better connectivity, and more opportunities to travel'*.

From this study, Network Rail recommended down slow speed improvements at Peterborough station to provide benefits through increasing the line speed on the approaches to the station, allowing trains to access and clear the station more quickly. This was assessed as a low cost investment (a categorisation for investments up to £20 million).

Within relative proximity to Peterborough station, Network Rail also recommended investment in the Huntingdon to Woodwalton four-tracking scheme (to the south of Peterborough) and the Werrington Grade Separation scheme (to the north of Peterborough). The Huntingdon to Woodwalton four-tracking scheme involves increasing the line capacity from Huntingdon to Woodwalton from three to four tracks. The Werrington Grade Separation involves the construction of a dive under route for freight traffic travelling from the west side of the ECML to the GNGE joint line, to avoid conflict with mainline services. Of these schemes, the Werrington Grade Separation has now been completed to provide the first stage of network improvements in the area .

Since the COVID-19 pandemic, Network Rail re-examined the conclusions of the East Coast Main Line Route Study through the **'Peterborough Area Strategic Advice Study'** to understand whether further operational railway enhancements may be needed in the future in and around Peterborough, such as new platforms and/or track modifications, as well as potential diversions for increased rail freight demands. This work involved consultation with all applicable Train Operating Companies.

The project will consider the recommendations of the **'Peterborough Area Strategic Advice Study'** and **'Continuous Modular Strategic Planning - Eastern Region Depot and Stabling Strategy'** by Network Rail. The former has recommended that passive provision for an additional through platform on the western side as well as a north facing bay platform either on the east or west. The Depot and Stabling Strategy was developed for the North East, East Coast and East Midlands routes to understand whether depot and stabling (D&S) locations are in the right places and provide enough capacity to service the future passenger rolling stock fleet. The study determined that Peterborough could be a significant area to relieve some of the pressure from London due to the higher availability of land. Additional D&S facilities in the Peterborough Station region may also be deemed necessary to accommodate growth on the ECML.

It should also be mentioned that the project will be developed with reference to Arup and Network Rail's report **'Tomorrow's Living Station'**, released in October 2019. This document sets out a way of thinking that incorporates the fundamental role of stations and railways in moving people safely but also explores broader issues and opportunities for stations. Fundamentally, it proposes developing stations that act as the centre of movement of people, support inclusive growth, and form the heart of communities. The Peterborough Station project closely aligns with these values as it plans to revitalise the social and economic environment of Peterborough and wider area.

2.3.2 Regional

The key ambitions for CPCA are set out below, which are defined in greater detail through a range of policy documents as discussed in the following section:

- Doubling the size of the local economy;

- Delivering outstanding and much needed connectivity in terms of transport and digital links;

- Providing the UK's most technically skilled workforce;

- Growing international recognition for our knowledge-based economy;

- Improving the quality of life by tackling areas suffering from deprivation

CPCA released their **'Sustainable Growth Ambition Statement'** in March 2022, which restates the Devolution Deal commitment to double the size of the Cambridgeshire and Peterborough economy over the 25 years from the date of the Devolution Deal. It also describes six themes which inform the Combined Authority's investment programme. These reflect an economic approach anchored in growth theory, aiming to maximise not only annual headline growth in the economy, but also achieving growth in people – skills and health, climate and nature, infrastructure, innovation, reducing inequalities and improving institutional capital. The project directly and indirectly strives to meet all of these ambitions, through changing the physical environment and activating the region.

The **'Local Industry Strategy (LIS)',** released in 2019, links closely to this statement, delving into the specific plan to support the region's various industries. It cites that delivering transformational transport projects will improve the long-term capacity for growth. This strategy provides reference to the PSQ programme as a means to attract high quality jobs and deliver business space to the region.

CPCA also released their **'Local Economic Recovery Strategy (LERS)'** in 2021. This plan sets out how the region will accelerate the recovery and renewal of the economy in light of the COVID-19 pandemic. It consolidates how the region can get back on path to achieving its goals set in the 2019 LIS, while dealing with newer issues that have arisen over the past year. This strategy highlights the PSQ programme as a significant intervention for recovery and future growth.

The **'Local Transport Plan'**, released in 2020 and currently being updated, outlines how transport interventions can be used to address current and future challenges for Cambridgeshire and Peterborough. This overarching document sets out the policies and strategies needed to secure growth. The project is referenced in this plan, and particularly relates to the guiding principles of:

- Supporting economic growth and distributing prosperity;

- Providing attractive alternatives to driving – 'mode shift';

- Preparing for the future of mobility;

- Greening our transport infrastructure; and

- Supporting social mobility and access to opportunity for all.

CPCA released their **'Draft Local Transport & Connectivity Plan (LTCP)'** in 2022. The project contributes towards the key vision of the LTCP, which is provide a transport network which secures a future in which the region and its people can thrive. Additionally, it is aligned with the six LTCP goals relating to Productivity, Connectivity, Climate, Environment, Health, and Safety.

The **'Bus Service Improvement Plan'**, released by CPCA in 2021, was developed in accordance with the National Bus Strategy to set out the region's plan and align this on the national scale. It specifies how bus services will link to rail stations and hubs, providing integration with active modes. The relocation of the Peterborough Station bus stop as a part of the project will coincide with this improvement plan. In addition, feasibility funding has been allocated to consider relocation of the existing bus depot to assist in electrifying the fleet.

In March 2023, CPCA released their **'Bus Strategy'**, setting out the principles of how CPCA intends to reach its ambition of reducing car miles in the region by 15%, and doubling bus patronage by 2030. Methods to achieve this include improvements to convenience, speeding up journeys by implementing more effective bus priority measures, and simplifying ticketing to create a "London-style network" across the region. Infrastructure improvements are also planned such as transitioning to low emission vehicles and providing high quality passenger waiting facilities with more real-time information. This aims to make bus travel more attractive, leading to a higher percentage of mode share.

A draft **'Alternative Fuels Strategy'** for CPCA and New Anglia LEP was produced in February 2022, setting out a detailed plan for actions to support clean growth, support decarbonisation, improve air quality, and accelerate the uptake of alternative fuel vehicles in the region. Key priority actions include working with local authorities to disincentivise private car use, expanding bus and rail capacity, and supporting an increase in active travel. This helps to improve public health through the combination of increased levels of exercise and improved air quality.

The Cambridgeshire & Peterborough Independent Commission on Climate released their strategy document, **'Fairness, nature and communities: addressing climate change in Cambridgeshire and Peterborough'** in 2021. The Peterborough Station project aligns with this climate strategy, through supporting the target of a 'reduction in car miles driven by 15% by 2030 relative to baseline'. Furthermore, the commission identifies the need to explore the following:

- Options to improve cycling infrastructure both within urban areas, and to encourage the use of e-bikes for longer trips to and from market towns and cities;

- Alternatives to road investment to be prioritised for appraisal and investment, from active travel and public transport options, to opportunities for light rail and bus rapid transit or options to enhance rail connections.

England's Economic Heartland (EEH), the sub-national transport body for the region covering Peterborough, released their **'Rail Strategic Objectives'** in July 2023. This sets out strategic objectives for several train routes including the East Coast Main Line. For Peterborough, these include short-term plans (up to 5 years) to provide a multi-transport interchange at Peterborough and Stevenage. Medium-term plans (5-20 years) include improving the resilience of the network between Peterborough and London to provide more reliable journeys.

2.3.3 Local

The **'Peterborough Local Plan 2016-36'** contains the adopted planning policies for the growth and regeneration of Peterborough and the surrounding villages up to 2036, although work has begun on updating the plan. The Peterborough Station project directly relates to Policy LP48: Railway Station Policy Area, '*where council will support and encourage high quality mixed-use developments which create an attractive and legible gateway into the rest of the city centre.*' The Peterborough Station Enhancements and Connectivity Improvements project will form a key part in the delivering of the place based policy ambitions of the area.

PCC has championed the development of the Peterborough station and the PSQ programme. The **'PSQ Feasibility and Masterplan'**, produced in 2021 by NORR, is a high-level feasibility document for the redevelopment of Peterborough Station. This document was the starting point that established the vision for the project, and has since been updated in line with this OBC.

The **'Town Investment Plan'**, released by Peterborough Town Board and PCC in 2020, outlines the priorities for future investment in the region. This document sets the PSQ programme as a focus in relation to land use, planning and infrastructure.

In 2020, PCC also produced **'Peterborough City Centre: Transport Vision 2040'** as a guide to inform future planning policy, largely centred around Peterborough station. Whilst the document is in need of revision and further development, the project supports the key outcomes from this vision including:

- A substantial reduction in vehicle trips through the city centre, and the location of one of the identified travel hubs;

- A well-connected network of public realm corridors, providing a safe and pleasant space for sustainable modes of transport;

- A vibrant and thriving city centre economy, accessible to all users;
- An urban environment where nature has a home, and urban greening is used to soften the visual impact of infrastructure.

Additionally allied to the transport vision are the following documents:

- A draft 'Peterborough Public Realm Strategy', which develops a plan for public realm improvements. The PSQ programme plays a significant role in this document, which has the strategic aim of creating a cultural, connected, natural city.
- The draft 'Local Cycling and Walking Infrastructure Plan 2020 – 2029' developed in response to the DfT's Cycling and Walking Investment Strategy to provide a proactive approach to future investments. This plan highlights the council's commitment to encouraging active travel modal shift throughout the wider Peterborough municipality area. The improvements to cycling and walking connections in association with the project will strongly align with the priorities in this document.

2.4 Existing Arrangements

Peterborough station is an important rail interchange on the ECML. It holds national significance as being the interchange point between 'ECML South: London to Peterborough' and 'ECML Central: Peterborough to Doncaster and Leeds', as well as long distance and local east-west services. As previously mentioned, Peterborough Station offers twice hourly express train access to London Kings Cross in just under 50 minutes, to York in 1 hour 15 minutes and Leeds in 1 hour 30 minutes. The station is managed by LNER, who are currently publicly owned.

In the 2018/19 period, the station saw an annual throughput of 5 million passengers, including 960,000 who used Peterborough as an interchange for services to other destinations. While numbers declined during the COVID-19 pandemic, by 2021/22 there was a partial recovery with 4.2 million passengers, reflecting the continued recovery of rail travel to pre-pandemic levels in the UK.[25]

LNER overall have been one of the leading Train Operating Companies (TOCs) in terms of this recovery, with January to March 2023 passenger numbers reaching 111% of the levels seen in the same period in 2019. East Midlands Railway, another TOC serving Peterborough, has also exceeded passenger numbers in 2019, carrying 101% of the passengers from pre-pandemic levels four years ago[26].

[25] Office of Rail and Road, Passenger entries and exits and interchanges by station, 2022
[26] Office of Rail and Road, Passenger journeys by operator January to March, 2023

To accommodate this significant capacity, the station features 7 platforms, last upgraded as part of a series of improvements in 2013.

2.4.1 Station and City Centre Active Mode Connectivity

Peterborough station is located approximately 500 metres west of the city centre (defined as Peterborough Town Square) and 200 metres west of the Queensgate Shopping Centre and Peterborough Bus Station.

The station is physically severed from the city centre by Bourges Boulevard (A15) and Queensgate Roundabout as well as visually by the multi-storey car parks of Queensgate Shopping Centre that block views of the Cathedral. Phase 1 of the Bourges Boulevard improvement scheme (the area between the station and Queensgate) was completed in July 2015, and provided two at-grade pedestrian crossings, a right turn junction out of the station and significant enhancements to public realm although it has been acknowledged that further improvements could still be made to increase permeability and better stitch the station into the fabric of the city centre.

Some signage is provided as illustrated by Figures 2.10 and 2.11.

There is a designated walking and cycling path towards the city from the station, as shown in Figures 2.12 and 2.13. This pathway starts from behind the British Transport Police building on Station Road and continues through an underpass to Cowgate, which is a main street leading into Peterborough Town Square.

Figure 2.10: Directional Signage from Station to City Centre

Figure 2.11: Directional Signage from Station to City Centre

Figure 2.12: Walking and Cycling Path from Station to City Centre

Figure 2.13: Walking and Cycling Path from Station to City Centre

Figures 2.14 and 2.15 show two of the three underpasses leading from the station to the City centre, crossing through Queensgate Roundabout. These paths feature a number of inclines in order to reach the underpass level, and cyclists and wheelchair users are required to take a circular ramp to reach pavement level at Cowgate.

Figure 2.14: Underpass from Station to Queensgate Roundabout

Figure 2.15: Underpass to Queensgate

Figure 2.16 shows the privately owned pedestrian footbridge linking the station to Queensgate Shopping Centre and Queensgate Bus Station, the main bus station in the City centre. This structure allows pedestrians to pass over Bourges Boulevard but is not Equality Act compliant. The ramp has steps, as shown in Figure 2.17, and there is no lift provision connected to the bridge - although there is in the adjacent car park. Those with accessibility requirements are currently required to use an at-grade crossing across Bourges Boulevard.

Figure 2.16: Pedestrian Footbridge to Queensgate Shopping Centre

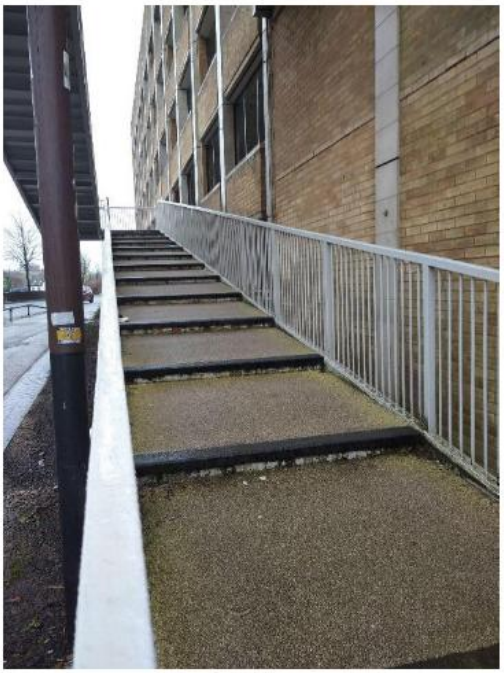

Figure 2.17: Stair Access on Pedestrian Footbridge to Queensgate Shopping Centre

2.4.2 Station Vehicular Connectivity

Queensgate Roundabout, as shown in Figure 2,18, is a 5-arm roundabout junction to the south east of Peterborough station. This is a significant junction for the local area, being directly adjacent to the Peterborough station, Queensgate Bus Station, Crescent Bridge and Cowgate. As previously outlined, pedestrian and cycling connections from the station to the City centre are facilitated through this roundabout by means of underpasses.

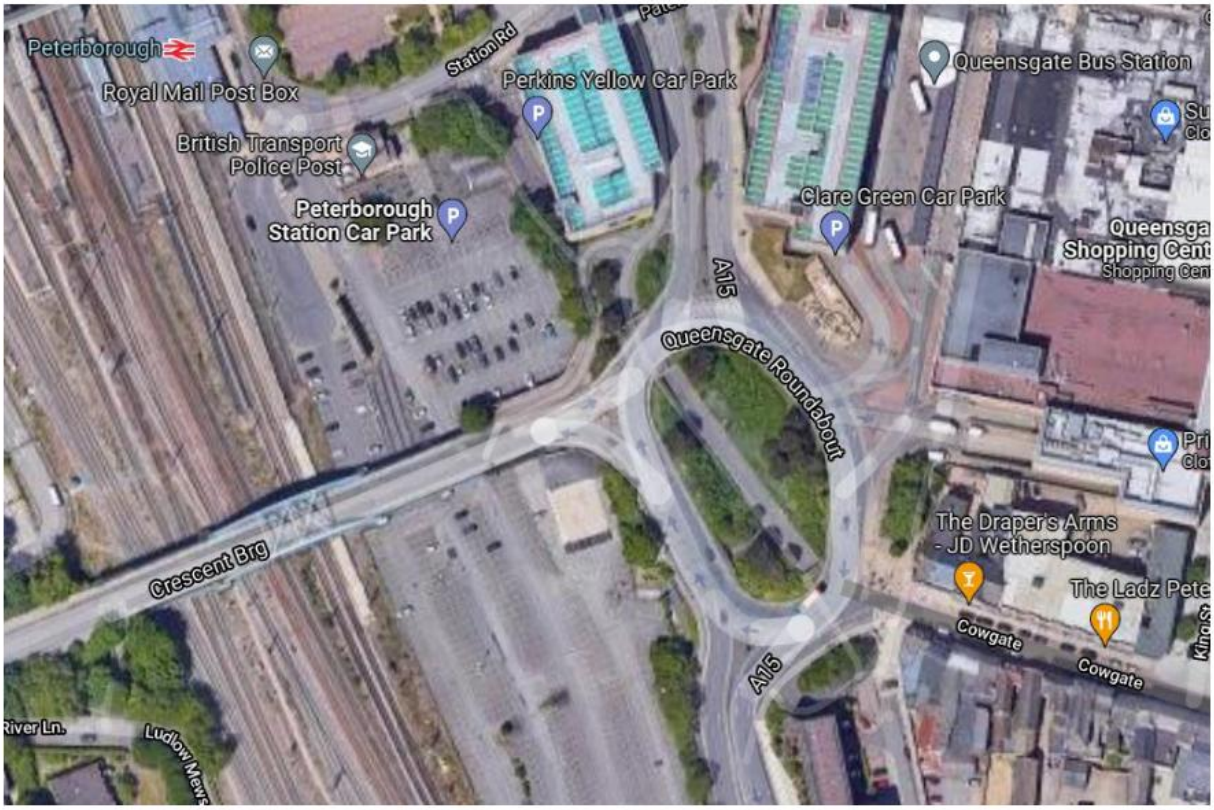

Figure 2.18: Queensgate Roundabout

There is often significant congestion on Crescent Bridge in the peak periods. The queuing in partly caused by the vehicles on Crescent Bridge having to give way to northbound vehicles on Bourges Boulevard, travelling through the roundabout.

Figures 2.19 and 2.20 show 2017 traffic speed data from Trafficmaster. It is evident that there is significant congestion along Bourges Boulevard and Crescent Bridge during both AM and PM peak hours, signified by the low average speeds. A large portion of this traffic can be attributed to the concentration of movements to/from the station given that all of the existing car parks and entrances are on the eastern side of the rail lines.

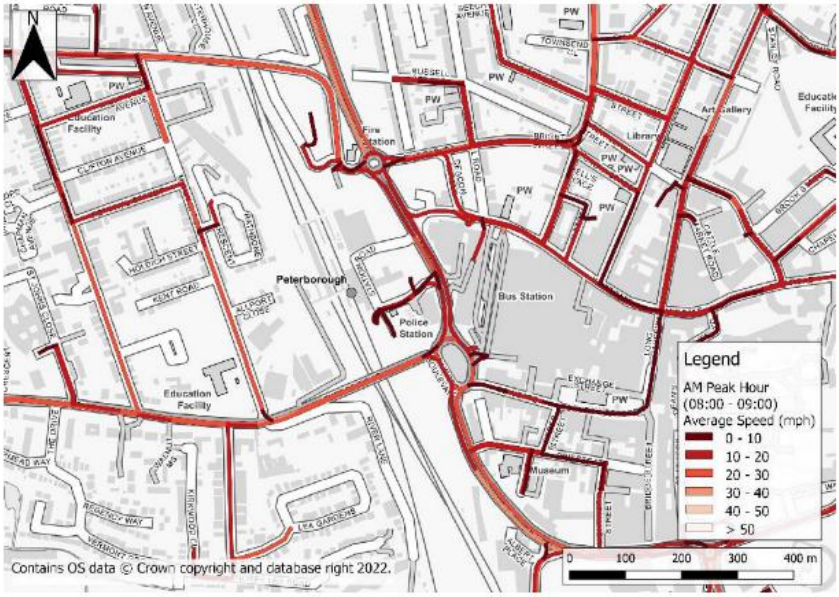

Figure 2.19: AM Peak Hour Traffic Speed Data surrounding Peterborough Station

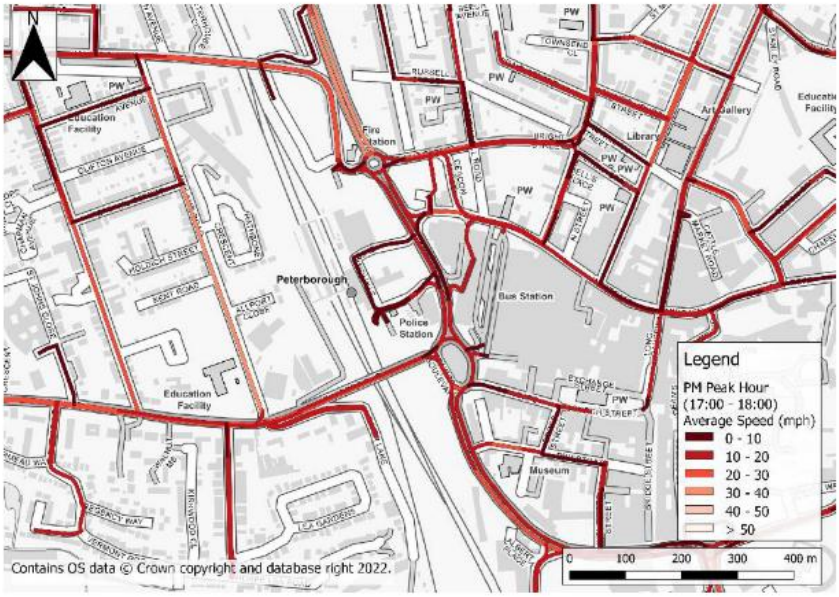

Figure 2.20: PM Peak Hour Traffic Speed Data surrounding Peterborough Station

2.4.3 Station Forecourt

The station forecourt, immediately outside of the station entrance comprises of a passenger drop off zone, taxi rank, delivery zone and bus stop.

The passenger drop-off zone is to the south of the main station building, as shown in Figure 2.21.

Figure 2.21: Drop-off Zone to the South of the Station Building

Figure 2.22 shows the taxi rank outside the station entrance. In its current configuration, four taxis can fit in this space at one time. Slightly to the north of the taxi rank, there is a delivery zone and a small bus stop, as shown in Figure 2.23. In the event of disrupted train services, this area also serves as the waiting and boarding bay for replacement bus services. It is apparent that there are a range of conflicting activities taking place in this confined space.

Figure 2.22: Taxi Rank outside Station Entrance

Figure 2.23: Bus Stop and Delivery Zone outside Station Entrance

2.4.4 Parking

There are a number of dedicated rail station car parking areas for rail users all of which are located on the eastern side of the station, as shown in Figure 2.24. There are also nearby car parks associated with the Queensgate Shopping Centre and Waitrose supermarket, located to the east of the station.

Existing			
Parking Type	Location	Spaces	
		No	Total
Long stay	Spittal Bank	191	1,178
	Mayors Walk	266	
	North of Crescent Bridge	120 (including 25 premium spaces)	
	South of Crescent Bridge	601	
Accessible	North of Crescent Bridge (within Main Car Park)	3	37 (3% of total spaces)
	North of Crescent Bridge (adjacent to rail boundary)	20	
	On Station Road (adjacent Station and opposite Waitrose)	14	
Hire Car	Station Front	1	1
TOTAL			1,216

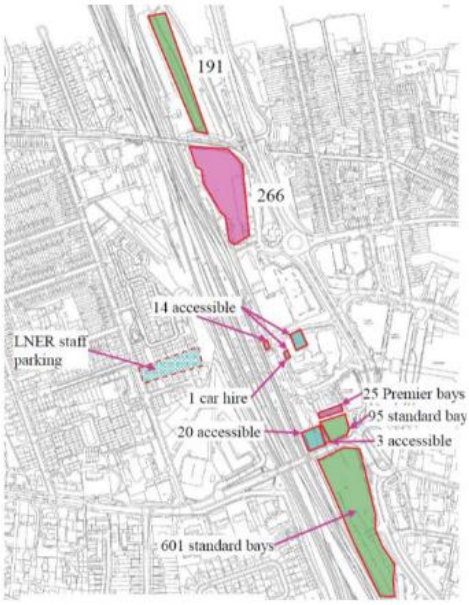

Figure 2.24: Surface Car Parking servicing Peterborough Station

All station car parking is concentrated to the east of the station, with the exception of the staff car park to the west. Table 2.12 details the various surface car parking areas

operated by LNER (under lease from Network Rail) that currently service Peterborough station. These surface car parking areas constitute a total land area of 4.8 hectares and 1,216 general parking spaces (plus a further 105 rail staff only parking spaces on the western side). Additionally, the maximum distance and walking time from these car parks to the station entrance is documented.

Table 2.12: Car Parking Areas servicing Peterborough Station

Car Park	Size	Number of Parking Spaces	Maximum Distance to Station Entrance	Maximum Walking Time to Station Entrance
Peterborough Station Car Park	2.1 hectares	744	400m	5 min
Mayor's Walk Car Park	1.1 hectares	266	450m	6 min
Spittle Bank Car Park	0.9 hectares	191	730m	10 min
Vicinity of Great Northern Hotel	N/A	15	100m	2 min
Sub-total	**4.1 hectares**	**1,216**	-	-
Staff Car Park	0.7 hectares	105	190 m (to western staff access)	2.5 min
Total	**4.8 hectares**	**1,321**	-	-

In terms of cycle parking, 458 spaces are provided in racks and stands in an area alongside the station access road and adjacent to the British Transport Police building. These are sheltered spaces covered by CCTV.

2.4.5 Station Facilities

Peterborough Station's passenger entrance is on the eastern side of the rail lines and is shown in Figure 2.25. This is currently the only entrance for rail passengers, and it leads into the main station building. Figure 2.26 shows the full extent of the current food and beverage facilities in the main station building. These facilities include both a small newsagents and cafe, however these are both currently closed for refurbishment as of October 2023. Also within the station concourse is a Customer Information Point (shown in Figure 2.27) and the LNER Travel Centre. There is an additional customer service office located on the island platform 4/5.

Figure 2.25: Peterborough Station Entrance

Figure 2.26: Facilities in Station Concourse

Figure 2.27: Customer Information Point in Station Concourse

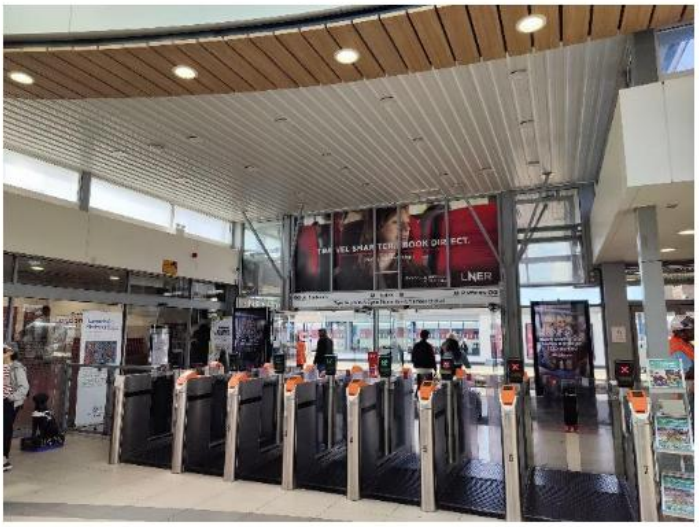

Figure 2.28: Station Concourse Gateline

Figure 2.28 shows the gateline in the station concourse. There are currently seven Automatic ticket gates (ATGs) to accommodate the passengers using Peterborough Station. Figure 2.29 shows the food and beverage facilities outside of the station entrance, while still connected to the station building.

No First Class Lounge is available for passengers at the present time – this was previously located in the Great Northern Hotel until 2022.

Figure 2.29: Cafe outside the Station Entrance

This single eastern entrance means that passengers need to use an overbridge to access most of the platforms. The primary footbridge is shown in Figures 2.30 and 2.31. This footbridge is adjacent to the station entrance and provides lifts to from each platform. The footbridge extends to the western side of the rail lines but access beyond platform 7 is for staff only.

There is also a goods bridge with ramp access located at the northern end of each platform, as shown in Figure 2.31. This bridge, known as the "parcel bridge" is coming to the end of its operational life and has a maintenance regime in place to manage the risks associated with it being constructed of asbestos. It is not compliant with modern access requirements.

Figure 2.30: Station Footbridge

Figure 2.31: Goods Bridge with Ramp Access

The station can be accessed via a footbridge on the western side, shown in Figure 2.33. As previously mentioned, this access is not for passenger use and is used by staff to access LNER staff car parking facilities on the west.

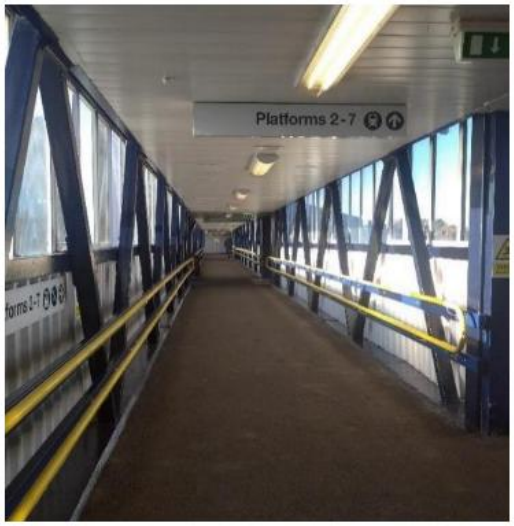

Figure 2.32: Station Footbridge

Figure 2.33: Current Western Staff Access

There is no centralised waiting area for the station. Passengers that are interchanging or waiting at Peterborough Station are required to utilise the limited facilities in the station building or wait on the platforms. Each platform has small waiting rooms such as that shown in Figure 2.34. Each platform also has a small food and beverage facility, which vary in size and quality. Figure 2.35 shows the food and beverage facility on platform 1.

Figure 2.34: Typical Waiting Room on Station Platforms

Figure 2.35: Food and Beverage Facilities on Station Platform

2.4.6 Station Capacity

In 2022, Network Rail conducted their **'Peterborough Station Options Modelling Station Capacity Assessment'** to determine areas of concern in terms of passenger congestion and understand the implications of not increasing the capacity at Peterborough station.

An initial base model was created using passenger demand data from 2019. This model was extrapolated to the year 2042, applying a 31% growth from 2019, to understand the implications into the future. This model was run for both the AM and PM periods. Figure 2.36 shows Fruin's Level of Service (LOS) scale, which has been used to evaluate passenger congestion and crowding. This scale ranges from LOS A, indicating free circulation, to LOS F, indicating complete breakdown of flow with frequency stoppages.

Figure 2.36: Fruin's Level of Service (LOS)

The initial base model used the current Peterborough station layout and was modelled for 2019 and 2042 scenarios. This model had issues with LoS E/F at the gateline during peak times, LoS E on platform staircases which caused clearance times to exceed 2 minutes and congestion on the bridge. The queues at the gateline in the base model were up to 3.79 m on the unpaid side and 6.23 m on the paid side. Platform clearance times were under 2 minutes for the AM model, and between 2-3 minutes for the PM model.

The report recommended that this station layout be improved by widening the stairs or providing an escalator for faster platform clearance and to reduce queuing. It was further suggested that expanding the gateline would reduce queuing and the need for orientation switches.

Figure 2.37 shows a snapshot of the capacity modelling results for the 2042 scenario in the PM peak hour (starting at 1900). This shows the gateline, stairwell, station platforms, and also displays the pedestrian footbridges at the top of the figure. While platform crowding is depending on the timing of alighting services, this figure shows LOS E/F at the base of the stairs on platforms 4/5, and LOS E on platforms 6/7. It additionally demonstrates LOS F on the paid side of the gateline (with related crowding that spills onto platform 1) and LOS E on the stairs leading to the southern footbridge.

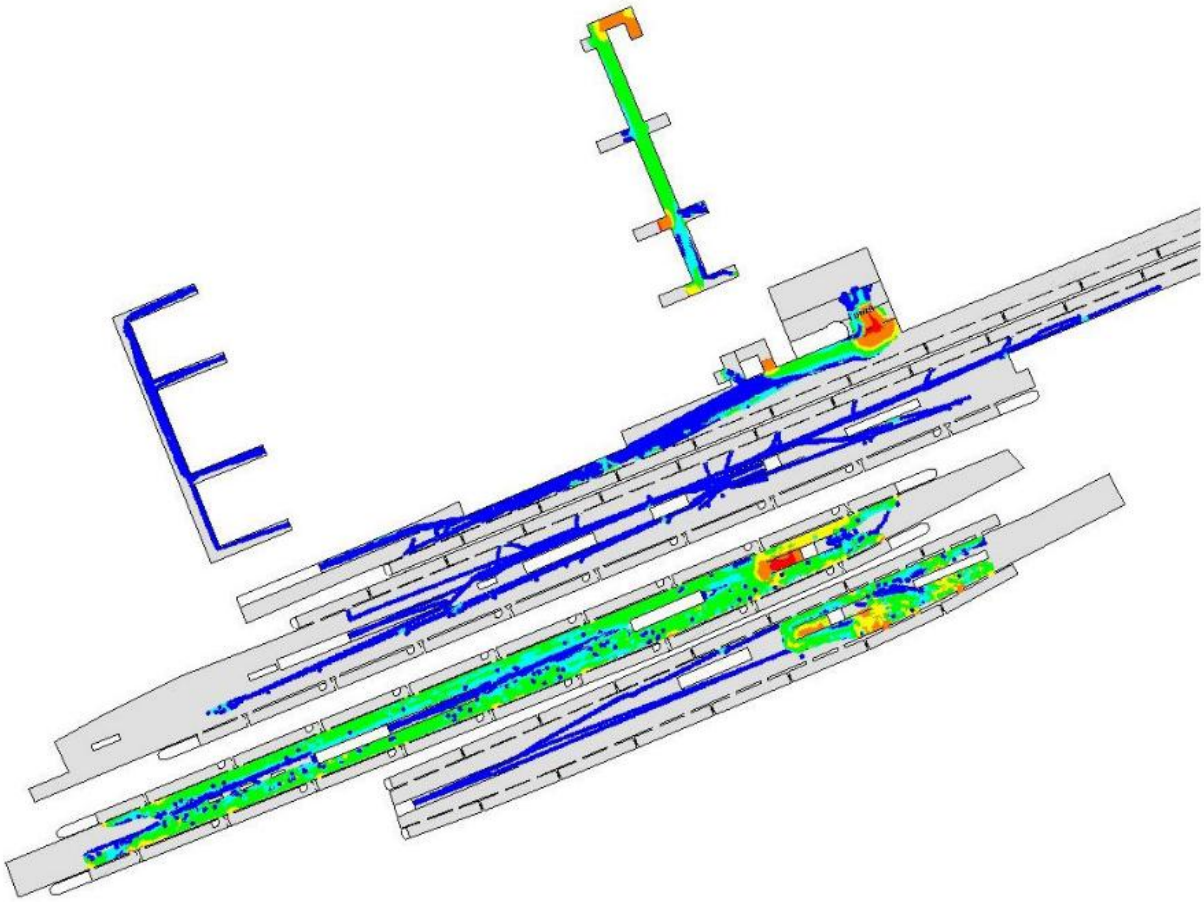

Figure 2.37: Passenger Congestion in 2042 Scenario in PM Peak Hour (1900) for Base Model

2.4.7 Maintenance Delivery Unit

Network Rail currently occupies a Maintenance Delivery Unit (MDU) over several plots of land to the west of Peterborough station, as shown in Figure 2.38. This purpose of this unit is to provide a physical base for maintaining the railways. Part of this site includes the Grade II* listed Crescent Wagon Repair Shop, said to be the only surviving all timber wagon shop in Britain.

The MDU sits on high value land, in close proximity to Peterborough Station, Crescent Bridge and West Town Primary Academy, and currently consists of a number of temporary office accommodation buildings as well as areas given over for plant and machinery.

Network Rail has been considering options for the relocation of the MDU to better utilise its existing landholdings around Peterborough Station, and this fed into the development of the original PSQ Masterplan.

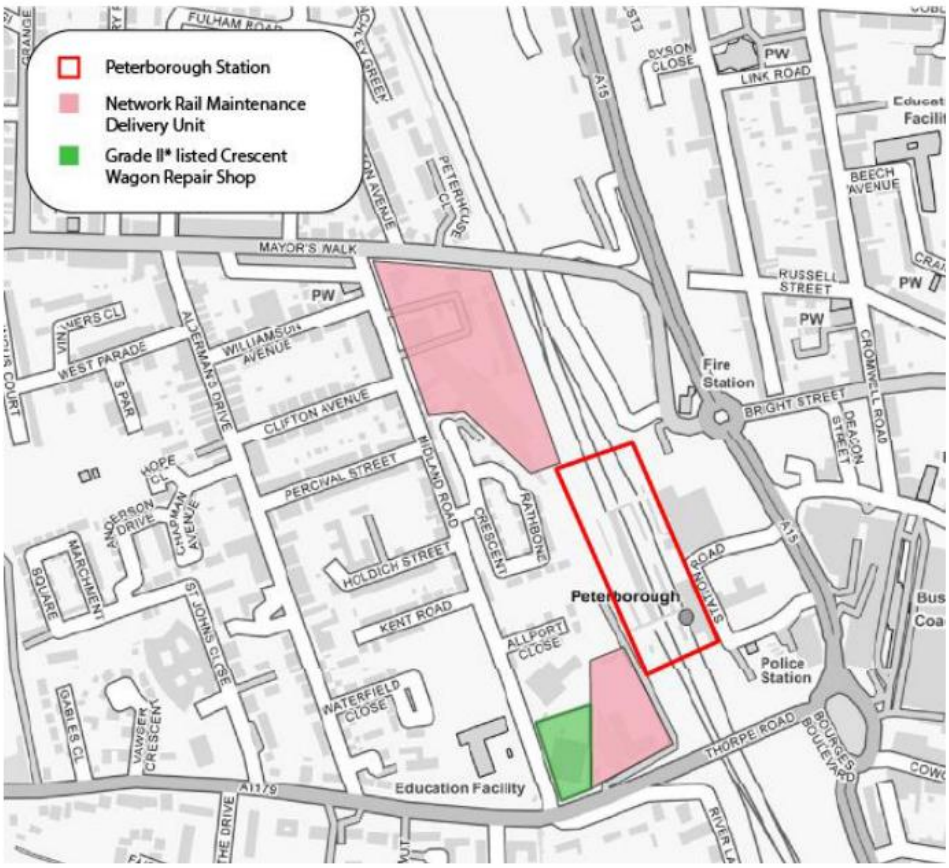

Figure 2.38: Location of Network Rail Maintenance Delivery Unit

2.5 Problem/Need Identification

2.5.1 Surface Car Parking, Employment Land and Housing

Stations are far more than just transport interchanges – they act as gateways into their immediate surroundings and the wider area. Identifying the problems and issues that exist in the area around the station is therefore vital to allow for meaningful improvement to made.

Surface level car parking occupies approximately 5 hectares of land around the station. This high value land has the potential to transform the local area and could be unlocked for greater commercial and housing development. This is particularly significant as there is a substantial lack of high quality commercial and office space in Peterborough and particularly in the proximity of Peterborough station. This discourages businesses to conduct operations in Peterborough and serves to reduce the productivity of the region.

The Peterborough Employment Land Review (May 2021) states:

'Peterborough has become a victim of its own success and employment land supply, particularly in the short term, is not sufficient to meet demand. There is a very real danger that investment will be lost to adjacent districts unless a more flexible, evidence-based approach is adopted which recognises and supports new sustainable employment land and development proposals beyond those sites allocated in the Local Plan.'

However, Peterborough offers lower business costs and is less than a 50 minute train journey to London King's Cross (with direct trains to Gatwick Airport). In order for Peterborough to capitalise on its strategic location to London, it needs to provide the resources necessary for businesses to operate. High quality Grade A commercial space is needed to be a real alternative to London and attract businesses to the region. With the relocation of various government services to Fletton Quays opened in 2023, Peterborough is in a prime position to continue this trend with other types of businesses.

The project will boost Peterborough's ability to attract more knowledge intensive high-level employment and to take advantage of the City's connectivity to London and other key cities in the UK by rail. It will also have benefits for the tourism market where the station may be the first impression a visitor has as they arrive.

Between 2010 and 2017, over 5,000 homes were built across the City at the Hamptons, the Ortons and Fengate, providing amenities and open areas for growing families. As growth continues across the City, PCC is now focusing on enhancing the City centre and riverside following the release of a 2022 masterplan. The City centre has historically relatively few houses and flats, when compared to other towns and cities of a similar size and scale. In order to address this, local planning policy has identified that the local housing need for Peterborough is for 19,440 homes to be built between 2016 and 2036, a total of 972 per year[27]. The City centre is now therefore being promoted as a location for substantial new residential development at a range of densities according to location.

The PSQ programme, of which this project is a first phase, offers the opportunity to build upon the confidence created by Fletton Quays development and be a key foundation in the City's aim to attract and retain young people that want to stay and play their part in the community. Peterborough is the most affordable city in the Greater South East (including the South East, East of England, and London), with average homes costing 7.2 times average wages. This is more affordable than average in England of 8.3[28]. Railway stations offer perfect opportunities to support new homes, as they provide access to jobs for new residents with minimal need for cars. This is illustrated by other examples within the CPCA area, for example, Waterbeach station, Cambridge North station and Soham.

A revitalised station gateway could also complement other key developments such as the Fletton Quays riverside development, the recently opened Anglia Ruskin University (ARU) campus, the Queensgate shopping centre extension, and more long-term plans such as

[27] Peterborough City Council, Peterborough Local Plan, 2019
[28] Office for National Statistics, Housing affordability in England and Wales, 2022

those set out in the Peterborough Embankment Masterplan Framework. Fletton Quays involves the development of 350 luxury apartments, a Hilton Garden Inn Hotel, a gin distillery, and modern office spaces - housing 1,000 civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs.

The success of the Fletton Quays government relocation can encourage and strengthen the case for further business relocation. The recently opened ARU Peterborough campus, supported by £20 million of LUF investment, plans to enrol 12,500 students by 2030. The Queensgate shopping centre extension involves £60 million worth of investment, and the Peterborough Embankment Masterplan Framework sets out ambitious plans to develop a new cultural centre along the riverside through investment in a new university campus and arena. Strong and attractive transport links are vital to the success of these developments, with all of these assets complementing each other to realise Peterborough's ambitions to become one of the most innovative and creative areas of the UK.

In summary, the delivery of an improved railway station, public realm and better connectivity could act as a catalyst to support regeneration and later development initiatives in the City and wider CPCA area. It could also contribute to the City's 'place making' agenda through the creation of new housing, commercial, retail and leisure uses, built around a sustainable transport hub that attracts new visitors and inward investment to the City centre and adjacent opportunity areas such as North West Gate, Rivergate and beyond.

2.5.2 Severance from City Centre

Despite the proximity of the City centre and Queensgate Shopping Centre the station feels isolated from the City centre, both visually and from an active modes perspective. This is demonstrated by the severance created by the dual carriageway, Bourges Boulevard, and Crescent Bridge Roundabout. There is also a lack of accessible and level pedestrian and cycle links between the heart of the City and Peterborough Station.

From the station entrance, passengers arrive into Peterborough on Station Road facing the Great Northern Hotel as shown in Figure 2.39. While there are signs that direct pedestrians and cyclists to turn right to go towards the City centre, visual aids such as the Cathedral are obscured by the multi-storey car park. The route itself is not obvious, going behind the British Transport Police Building, as shown in Figure 2.40. For those travelling to the Queensgate Shopping Centre, the path is also not immediately clear, with a footbridge elevated above Bourges Boulevard and positioned between two of the car parks.

Figure 2.39: Station Road from Peterborough Station Entrance

Figure 2.40: Station Road facing Yellow Perkins Car Park and City Centre

Figure 2.41 shows the most direct pedestrian route from the station to Peterborough Town Square. This figure demonstrates the way the route weaves around buildings, underpasses, and alongside security fencing. In addition to not being direct, the footpaths themselves are enclosed and sometimes narrow. Few visual aids are offered in terms of wayfinding and whilst some signage is present, there is sometimes no clear guidance for pedestrians and cyclists on the direction to take, or a clear visual reference point to aim towards.

In addition, there are personal security concerns. Limited passive surveillance is offered by surrounding buildings and whilst street lighting is provided, this is limited and partially obscured by trees on the path as shown in Figures 2.42 and 2.43. The underpasses also present similar issues, with paths being recessed into the centre of a roundabout, shown in Figure 2.44. Furthermore, due to level differences this route can be challenging for those with mobility issues. Figure 2.45 shows stairs that can be used by pedestrians, while cyclists and wheelchair users are required to take a circular path that can be seen in Figure 2.41 as a dotted white line.

A connection between the railway station entrance and Cowgate via a single, more intuitive and fully accessible route is required that better utilises existing buildings as reference points and is less ambiguous. Such a route could introduce visitors to the City through a series of legible spaces with a natural flow, finally culminating in the west face of the Cathedral. The simplification of this route could therefore improve the first impression of the City and significantly strengthens Peterborough's active travel offer. It would also offer the opportunity to provide higher quality public realm that offers a stronger first impression of Peterborough.

Figure 2.41: Route to the City Centre

Figure 2.42: Path from Station to City Centre

Figure 2.43: Walking and Cycling Path from Station to City Centre

Figure 2.44: Walking and Cycling Path in Queensgate Roundabout

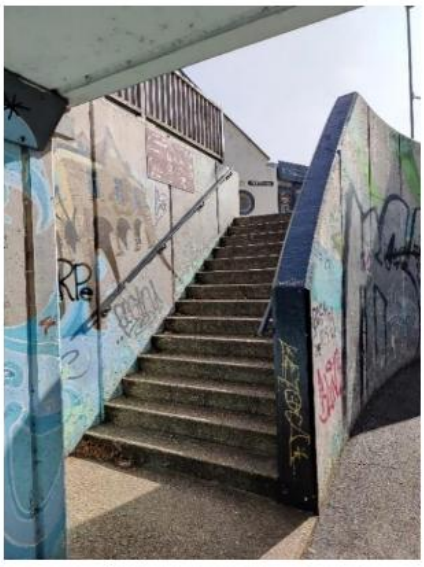

Figure 2.45: Stairs from Crescent Bridge Subway East Underpass

2.5.3 Single Eastern Entrance and Forecourt

In its current configuration, passengers can only access the station from the eastern side meaning that using a footbridge is necessary to access all platforms except Platform 1. Passenger car parking provision is also concentrated entirely on the eastern side, where there is approximately 4.5 hectares of surface car parking. The single station access combined with the expansive nature of the surface car parking means that some passengers experience additional journey times in excess of 15 minutes from car park to platform edge.

The fact that the station can only be accessed from the east also creates additional pressures on the road network at the Crescent Bridge roundabout. Previous feasibility work confirmed that 30% of station users travel from the west along Thorpe Road. If the station could be accessed from the west with adequate car parking provision, it would ease pressure on the City's road network at Crescent Bridge/Bourges Boulevard, reducing congestion as well as vehicular/pedestrian interface risk and air pollution.

2.5.4 Station Capacity

Within the station itself, the single entrance can result in passenger congestion during peak times. As shown in Figure 2.28, only 7 automatic ticket gates (ATGs) serve the high volumes of passengers in the station. Passengers needing to reach platforms 2-7 are required to exit the main station building and access stairs or a lift via platform 1. With this area being home to retail, toilet facilities, and a staff area, limited space is available on this already narrow platform to accommodate all these uses.

Figure 2.46: illustrates this problem, showing the main station building entrance on to Platform 1 where all passengers pass through regardless of their platform, with station facilities present on both sides. Stairs to the footbridge allowing access other platforms can be seen on the left. Figure 2.47 also shows the narrow space between the entrance and platform edge. This area is therefore subject to congestion, and this is reflected in modelling shown in Figure 2.37.

The lack of space in the station building, forecourt and on the platforms mean that unexpected or disruption events have the potential to be potentially dangerous. Most recently in January 2022, a large gathering of football fans was required to wait two hours for connecting trains. This created significant disruption to station operations, with these passengers gathering outside the station entrance and occupying the platforms. Station staff reported platforms exceeding capacity and some passengers momentarily falling onto train tracks, leading to delayed services.

Figure 2.46: Station Entrance on Platform 1

Figure 2.47: Platform 1

Peterborough Station is also often used as a point to turn trains around when there are serious incidents on the network. During these incidents it is not uncommon for passengers to be required to gather outside of the station building in the car park area. This highlights how a lack of space and limited access to the station is a real and prevalent issue impacting passengers and station staff. Furthermore, it emphasises the need to make improvements to accessing the station and its platforms. With a new point of access to the station and an improved internal configuration it is possible that the type of events described could be easier to manage.

Initial station capacity modelling work undertaken by Network Rail indicates that the provision of a new western entrance and reconfiguring access to the footbridge could help to relieve passenger congestion within the station. This could have a positive impact on passenger experience through improvements to the efficiency and safety of the station.

2.5.5 Poor Station Facilities and Customer Satisfaction

There is a lack of quality facilities within Peterborough Station, which is exemplified by 2023 Customer Satisfaction surveys for the LNER route (2023 Post Journey Survey). Table 2.11 shows the results of this survey, for which the Peterborough station is compared to average of the entire LNER route including Peterborough station. This data includes all customers, disrupted and routine, and the percentage represents customers who selected Extremely Satisfied or Very Satisfied (which are the top 2 of 7 options available) and is an average score over the rail year to date (2023/24).

Table 2.11: LNER 2023 Customer Satisfaction Survey Results

Measure	Peterborough (PBO)	Route As A Whole (inc PBO)	Difference
Overall Satisfaction	61.7%	65.7%	-4.0pp
Car Parking Facilities	49.3%	51.4%	-2.1pp
Cleanliness of Station	57.6%	64.4%	-6.8pp
Cleanliness of Toilets at the Station	48.0%	54.5%	-6.5pp
Station Navigation	68.9%	71.1%	-2.2pp
Updates on Journey	72.0%	72.3%	-0.3pp
First Class Lounge*	40.2%	57.9%	-17.7pp
Personal Safety	72.1%	74.1%	-2.0pp
Retailing Options	31.2%	47.9%	-16.7pp
Helpfulness of Staff	69.6%	70.1%	-0.5pp
Availability of Station Staff	59.6%	59.9%	-0.3pp
Waiting Facilities	49.6%	52.6%	-3.0pp

*

Of the 11 survey categories, Peterborough Station scored most poorly in relation to Retailing Options and First Class Lounge facilities, with a 31.2% satisfaction for Retailing Options (compared to a 47.9% average for the entire LNER route) and a 40.2% satisfaction for First Class Lounge facilities (compared to a 57.9% average). This shows the station is underperforming on the LNER route, largely due to its inadequate facilities.

The station currently comprises lacks a centralised point for waiting and interchanging passengers, which significantly impacts upon passenger satisfaction. Also, there is a lack of complete canopy covering several platforms, which is particularly problematic, especially in times of inclement weather, considering the large numbers of passengers using the station.

There is also a shortage of quality food and beverage, meeting and conferencing facilities around the station compromising the overall customer experience. Post-COVID-19 work and leisure patterns are likely to see migration from centres such as London to a more dispersed model, and Peterborough is ideally suited to continue its upward population growth in addition to acting as a focus for local commuters in East Northamptonshire, South Lincolnshire, Rutland and North West Cambridgeshire.

Station staff are also impacted by the station facilities. The station office facilities are limited in size and barely meet the needs of the current work force. The lack of quality facilities limits staff in delivering their operational responsibilities and providing the highest experience to passengers as well as having a negative influence on the ability to recruit and retain talent.

This similarly relates to the Great Northern Hotel, which previously functioned as a staff break room and First Class lounge for passengers, but now no longer provides these facilities since the hotel's change of use to become a hostel for asylum seekers, although it expected to be returned to regular use by the end of January 2024. However, it is clear that an upgrade is required in relation to both customer and staff facilities, in order to meet these basic occupational standards.

2.5.6 Market Failure

Market failure relating to the overall PSQ programme is a result of the piecemeal approach to the development of Peterborough station as well as some of the more common market failures associated with the way in which the rail industry is funded and the lack of alignment with wider regeneration projects.

Planning for future needs within the rail industry is predominantly focused on operational rail requirements and also usually within the land holding of Network Rail. Previous franchise models led to stations being operated and maintained by private companies with relatively short concessions, which stifled innovation and long term thinking about how they may develop within the surrounding area. This has resulted in a narrow focus at Peterborough station in terms of recent investment and hence some of the problems identified.

The area surrounding the station suffers from poor public realm, with limited amenity for active travel users to access the station and to travel between the station and the City centre. Large areas of surface level car parking have been provided to meet increasing demand from rail users using land available within rail ownership, but without a larger view on how this impacts on the local road network, the visibility of the station and the opportunity to create transit-orientated development.

The approach to the future development of the station, its immediate setting and the connections to the City centre require a more holistic approach to encourage greater use of public transport and active modes and to address the market failure to date – this is a key objective of the PSQ programme.

Where the benefits of investment lie beyond the direct individual users of the intervention, investment is commonly under-delivered through private markets alone. This is particularly the case for projects involving new public realm and placemaking, where individual investments are made into areas of public realm, not only benefits users of

these areas but individuals and businesses in the wider area. This is even more evident with rail projects, where the incentives for the private sector to invest in the areas beyond rail land holdings and the station lease area are limited.

The Peterborough Station Enhancements and Connectivity Improvements project will provide a substantial increase in amenity at the station and in the surrounding area, creating further activity that does not occur as a result of this market failure and contributing positively to wider growth and welfare benefits in the City.

2.6 Objectives

The agreed aim of the PSQ programme is:

"To stimulate the local economic, social, and cultural landscape of Peterborough through the delivery of a new Peterborough Station and Station Quarter precinct."

2.6.1 Strategic Objectives

Following a workshop held in Peterborough in November 2021, the following strategic objectives for the PSQ programme were agreed:

1. Capitalise on the frequent, reliable main line rail services to a wide range of destinations both now and in the future.
2. Maximise the scope for growth building on the existing adjacent uses and land availability
3. Improve the range and quality of passenger facilities at the station
4. Re-imagine the function and presentation of the station
5. Improve the connections from the station to the City in all directions
6. Enhance the multi-modal connections of the station
7. Address safety and personal security concerns
8. Have a mind to social and environmental sustainability (including carbon emissions) and whole life costs

2.6.2 SMART Objectives

Based on the above strategic objectives for the PSQ programme, it is valuable to further establish Specific, Measurable, Achievable, Relevant and Time-constrained (SMART)

spending objectives for the project itself, to act as measures of success and provide a clear basis for post-implementation evaluation. The following SMART objectives have therefore been defined for the project:

1. Improve access journey times to and from the station through a reduction in average pedestrian, cyclist and vehicle journey times as follows by 2026:
    - Vehicles from east to west: 2 minute average saving
    - Pedestrians and Cyclists from the west of the station: 5 minute average saving
    - Pedestrians and Cyclists from the east of the station: 2 minute average saving
2. Increase the opportunity for economic growth by facilitating the release of at least 3 ha of surface car parking for development by 2026.
3. Make the station an effective “gateway” to the City supporting an improvement in LNER Customer Satisfaction levels by 2026.
4. Support the creation and retention of 500 new jobs through the relocation of the MDU into a new, modern and sustainable operational facility.
5. Enhance environmental sustainability within the station lease area through improving the public realm and energy efficiency of the existing station building by 2026.

2.7 Measures for Success

Measures for success are the attributes essential for successful delivery of the project. They include not only measurable impacts on travel conditions but also consider the strategic fit, value for money and affordability, achievability and commercial aspects of the project.

Success will be through the delivery of a project that fully meets the objectives set, which means:

- A fit for purpose station that catalyses investment in the Peterborough Station Quarter and supports the city’s and wider region economic and job growth ambitions;
- Meets the needs of all users, improves local non-motorised user connectivity and supports sustainable development (housing and employment);
- Maximises return on investment, striking a balance between the cost of delivery and the cost to the economy of non-delivery;
- Cognisant of rail safety/operational considerations;

- Deliverable within the likely capital funding available and timescales; and
- Maintenance liabilities are affordable within current budgets.

These success factors are closely aligned to the outline benefits realisation/monitoring and evaluation plan included in the Management Dimension.

2.7.1 Strategic Benefits/Impacts

The objectives and measures for success form an important element of the theory of change logic map for the project, as set out in Figure 2.48. This theory of change logic map that has been developed in line with DfT and DLUHC appraisal guidance to show how the SMART objectives will be achieved and lead to the strategic benefits.

The core impacts and strategic benefits of the project are summarised below, along with how these result from the project's inputs, outputs and outcomes.

Impact: Economic Growth and Levelling Up in Peterborough (including a reduction in inequalities)

- *Context:* Peterborough is ranked 51/317 of all local authorities nationally, by local authority score, where 1 is most deprived (IMD 2019). It is a Priority 1 area for Levelling Up. A recent Centre for Cities study declared Peterborough as the fifth most 'at risk' city in the UK from the economic impacts of the COVID-19 pandemic.
- *The Western Entrance and MSCP (outputs)* are facilitated by Network Rail *relocating the southern part of their Maintenance Delivery Unit (MDU) (output)*. This relocation will be delivered separately by Network Rail. The preferred location of the MDU is the space currently occupied by the Mayors Walk and Spittle Bank car parks. The car parking spaces will be re-provided elsewhere in the station lease area through *consolidation of surface car parking around the station, including the new MSCP (output)*.
- *Reduced journey times to the station (output)* will come about for users travelling from the west (approaching via Thorpe Road) as they will be able to use the new western entrance and car park. Station users from the West will not have to cross the Crescent Bridge and negotiate the Queensgate roundabout to access one of the existing car parks. In addition, the new western car parks will be much nearer to the station entrance than Mayors Walk and Spittle Bank car parks.
- *Commercial and housing development* (*people, businesses & place outcome)* will be unlocked by the *consolidation of surface car parking around the station (output) and the MDU relocation (output)*. In line with Local Plan policy, mixed-used development will be supported by PCC in this area to support growth and create an attractive and

legible gateway into the rest of the City. Over 90 investors have already expressed an interest in this location. The land that will be released for development by the LUF funded project is that currently occupied by the northern part of the MDU. The release of the land is facilitated by the relocation of the MDU and car parking consolidation.

- The *new station square as well as investment in the existing (Eastern) station building (outputs)* will provide *improved journey quality/experience and enhanced passenger capacity in the station (transport outcome).*

- Investment in the *new station square and existing station building/facilities (output)* integrated with *development proposals (output)* will complement and build upon the confidence of other developments such as the new ARU Peterborough Campus (supported by £12.3m of capital investment from CPCA, £12.5m of Local Growth Funding and £1.6m in land investment from PCC) and Fletton Quays riverside development to create a *gateway to new and expanded markets for Peterborough (People, Businesses & Place Outcome)*. Fletton Quays has seen the relocation of civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs – paving the way for the similar relocation of business into Peterborough offering high paid jobs.

- *The new station square and a safer & more accessible active travel connection between the station and city centre (outputs)* will encourage *modal shift to active travel (transport outcome)* and enhance the setting of the station *(placemaking benefits)* and its perceptions as a gateway (*People, Businesses & Place outcome):*

- *Safer, accessible and more enticing active travel connections to the city centre (output)* will also lead to *increased city centre footfall* (*People, Businesses & Place outcome*) benefitting Peterborough businesses. Pre-COVID-19 pandemic data shows that 960,000 passengers used Peterborough as an interchange for services to other destinations - there is a significant market to capitalise upon in attracting these passengers towards the business offerings of Peterborough City centre.

Evidence

Transport and inequality: An evidence review for the DfT (2019) indicates that transport is an integral yet intermediary component of the wider picture of socio-economic inequality. The main way that transport and inequality is linked is through providing affordable access to a range of opportunities. These not only include access to education, training and employment opportunities, but also family and social networks, housing, recreation and amenities, community engagement activities, and key goods and services.

The Rail Delivery Group demonstrates how investing in station improvements can stimulate economic growth, support local businesses and create jobs. Recent station enhancements at Nottingham Station led to an increase in the number of developments within a mile of

the station from 10 to 133 a year, a yearly rise of 3.7% in employment in nearby areas, and an average yearly increase in local house prices of 7.6%[29].

Station enhancements at Manchester Piccadilly and Sheffield also provide evidence of a 'ripple effect', whereby initial development prompted partly by station improvements increased investor confidence and encouraged further development across the city[30].

Impact: Health and Wellbeing Improvements

- *Context:* The percentage of adults who smoke and who are overweight or obese are both higher than the national average in Peterborough, and if not addressed, this will lead to higher rates of cardiovascular disease (heart disease and stroke), diabetes and some cancers in our population. Rates of preventable deaths from cardiovascular disease in Peterborough are significantly above the national average, with a high level of local inequality between our most and least deprived communities. In addition, there are a number of well know health impacts related to levels of traffic congestion e.g. air quality and noise.

- *Safer and more accessible active travel connections between the station and City centre (output)* will increase active travel mode share and encourage m*odal shift from cars to rail and active travel (transport outcome)*. This has proven benefits in relation to health and wellbeing improvements.

- *Modal shift from cars to rail and active travel (transport outcome)* as a result of *safer and more accessible active travel connections to station and City centre (output) and the western entrance (output)* and will provide environmental benefits. The *new western station entrance, investment in existing station buildings/facilities and the station square (outputs),* integrated with *development proposals (output)* will also allow for environmental *(Transport Outcome: Noise, Carbon, Air Quality and Biodiversity Benefits)* enhancements through sensitive design.

- *Transport Outcome: Reduced journey time to station:* Strategic highway modelling indicates that there is likely to be an increase in congestion by 2036 in all time periods and that interventions will be needed to accommodate future development and growth. The creation of a *western station entrance and MSCP (outputs)* will alleviate pressure on the City's road network and reduce journey times, particularly along Crescent Bridge and Bourges Boulevard, particularly as 30% of rail demand is generated from the west.

[29] Rail Delivery Group, Station Investment: A catalyst for local economic growth, 2021
[30] Steer Davies Gleave, The Value of Station Investment, 2011

Evidence

Rail Delivery Group research shows that active travel enhancements surrounding Nottingham Station led to a 44% increase in cycling around the City, demonstrating the link between improved infrastructure and the uptake of active travel modes[31].

The economic analysis undertaken as part of the Strategic Outline Business Case (SOBC) for the project suggested benefits of up to £19.8 million (2010 prices) for the appraisal period of 60 years, which indicates considerable benefits for road users in relation to congestion and improved journey times.

Network Rail's Railway Sustainability Design Guide shows how urban habitats within the lineside can be created and managed, supported by templates; habitat specifications; identification aids; toolbox talks; and case studies. Investment in the station facilities and public realm provides opportunities for the provision of sustainability measure for both energy generation as well as the creation of urban habitats through consideration of elements like solar panels, rainwater capture and green walls and roofs.

[31] Rail Delivery Group, Station Investment: A catalyst for local economic growth, 2021

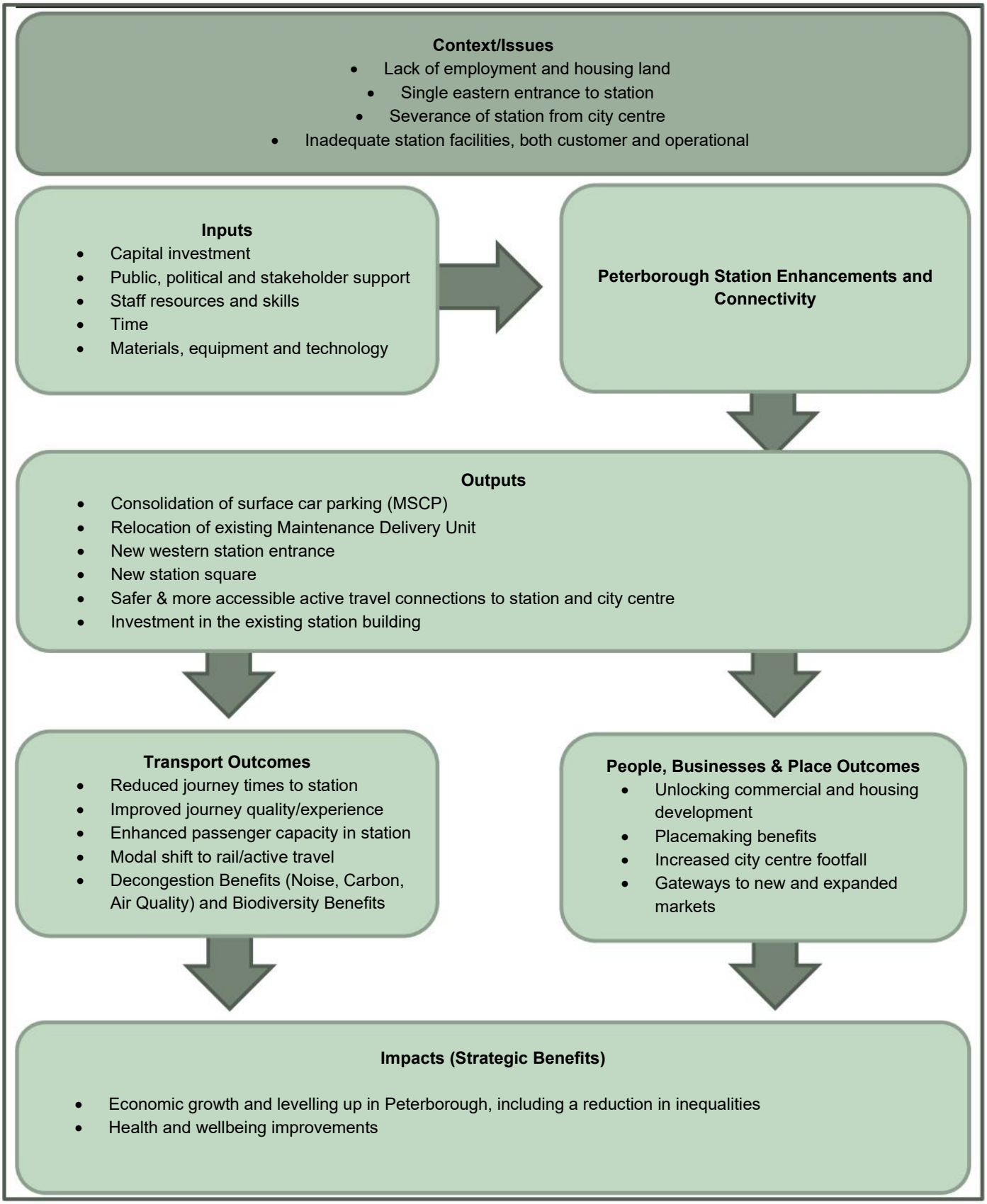

Figure 2.48: Theory of Change Logic Map

2.8 Risks, Constraints and Interdependencies

In order to take the PSQ programme and this project forward as a first phase, it is vital to understand the various risks and external constraints and interdependencies, so that issues can be acknowledged and addressed, and opportunities can be identified.

2.8.1 Key Risks

Table 2.13 includes some of the high level risks currently identified for delivery of the PSQ programme.

Table 2.13: Key Risks

Key Risk	Impact of Risk	Risk Control
Lack of clarity over relocation of Maintenance Delivery Unit	Preferred option could be stymied by decisions taken about relocation and timing may impact on programme	Network Rail to make early decision as to preferred location for MDU and confirm timing
Inability to agree with LNER amended arrangements for car parking	Reduced space for commercial/office developments that are a core part of the wider PSQ programme	Developing options that are not dependent on a change to the existing lease arrangements and minimise any loss f parking spaces in the short term
Increased competition for resources and funding	Lack of available resources means preferred option may not be achievable and/or a reduced ability to deliver	Ongoing liaison with DLUHC team regarding LUF bid
Compressed funding timescales may impact on programme	Some elements of preferred option may need to be amended	Ongoing monitoring of project against constraints of any agreed funding route
Complex governance arrangements between and within partners	Delay to programme. Potential issues with funding contributions for project	Clear understanding of governance processes of all partners. Prepare outline delivery strategy that takes account of these processes
Additional works required to existing building due to poorer existing condition than anticipated	Increase in project costs and potential delay to programme	Undertake site survey at appropriate time
Additional works required to existing structures due to poorer existing condition than anticipated	Increase in project costs and potential delay to programme	Early review of available information with regard to ability of existing structures to support additional loading proposed in preferred option. Undertake site survey at appropriate time

Key Risk	Impact of Risk	Risk Control
Unknown/unexpected utility diversions required	Increase in project costs and potential delay to programme	Obtain details of statutory undertakers' equipment, particularly in critical areas

More detail on the approach to risk management, and how these specifically relate to this project, is provided in the Management Dimension.

2.8.2 Key Constraints

The delivery of the first phase of the PSQ programme is dependent on the relocation of the MDU, currently located to the west of the station, which is an aspiration of Network Rail. The relocation of Network Rail's MDU will allow the western entrance proposals to come forward in their entirety, unlock commercial and housing development, and allow for the optimisation of land use within the station area. Network Rail's latest Business Plan includes a commitment to deliver the relocation of the MDU in the early part of Control Period 7.

The relocation of the MDU will provide quality accommodation for front line operational maintenance staff, guaranteeing existing employment in the City and creating opportunity to increase Network Rail jobs in Peterborough, indeed, it is estimated 45 new FTE jobs could be generated at the new MDU.

2.8.3 Key Interdependencies

At the current time, the following project interdependencies have been identified:

- Peterborough Area Strategic Advice
    - Network Rail has undertaken a 'Peterborough Area Strategic Advice Study' to understand whether further operational railway enhancements may be needed in the future in and around Peterborough, such as new platforms and/or track modifications, as well as potential diversions for increased rail freight demands. This study identified key constraints relating to platform capacity at Peterborough station and flexibility on the northern and southern approaches to Peterborough station. As such, the study has recommended various interventions relating to 2 new platforms and new crossovers.
- Towns Fund Investment Plan
    - The Towns Fund is a scheme of funding launched by the Government for towns such as Peterborough to boost economic productivity and support sustainable

growth. The overarching aim of the Towns Fund is to drive the sustainable economic regeneration of towns to deliver long term economic and productivity growth. Peterborough's Investment Plan was submitted 31 July 2020 and the Heads of Terms for £22.9m was signed in January 2021. This includes the implementation of several small active travel infrastructure enhancements projects in the City centre. These schemes will both complement and overlap with this project as they strive to create a welcoming entrance to the City for visitors from the station. £1.5 million has been secured from the Towns Fund that will go towards this project.

- Great Northern Hotel Redevelopment – a planning application was approved in 2020 to redevelop the Great Northern Hotel. The consented plans include:
    - Demolition of the poor quality 1970s extension to the hotel and some single level outbuildings to the north;
    - A new hotel extension is proposed to the north with a carefully detailed junction to the existing hotel;
    - A new office building is proposed on the site of the extension with active retail frontage at ground floor.
    - Parking is concealed on the ground floor, with the entrance off Station Road.

  This redevelopment has not yet been started since the approval of planning permission, and this is linked to the hotel currently being used as temporary accommodation for asylum seekers. However, the Home Office announced in October 2023 that the hotel would no longer be used for this purpose and that asylum seekers will be relocated from the site by the end of January 2024.

- ARU Peterborough
    - ARU Peterborough is a new £30 million university with an ambition to offer courses for up to 12,500 students, by 2032. It will help to improve and retain the skills of people in the region, while bringing additional opportunity and prosperity to the area. The new university will support the CPCA and PCC vision to deliver a step-change in life chances for people in Peterborough and beyond. ARU Peterborough is providing a practical solution to the problem of low employment and skills levels across Peterborough and the Peterborough Station and Connectivity Project will be key in supporting access to the opportunities it offers to students and businesses alike.

- East Coast Digital Signalling Programme
    - Phase 9 of this Programme will affect the Peterborough area. This involves ETCS brought in with conventional signalling retained due to rolling stock not fitted with ETCS continuing to operate in the area. This phase will involve renewing legacy interlockings and trackside signalling infrastructure, including life-expired signalling structures. Proposed dates detail design through to commissioning and handover are currently October 2024 – April 2027.
- ECML Improvements
    - The IRP for the North and Midlands 21 identifies a comprehensive package of upgrades on the ECML as it has significant potential to further improve line speed increases and seat capacity. The Government states that they will ensure digital signalling is delivered as well as an upgrade of the power supply to allow longer and more frequent trains, increase maximum speeds up to 140mph in some places, improve the capacity of stations, and remove bottlenecks such as flat junctions and crossings. In August 2022, Network Rail commenced a body of work to meet the various conditional outputs related to the IRP and where necessary present DfT with investment choices. Enhancements to Peterborough station complement and align with the IRP proposals as they both strive for improvements on the ECML.
- England's Economic Heartland (EEH) Passenger Rail Study Phase 2
    - This study has applied multiple levels of economic analysis to identify the valuable flows both internally and externally that connect EEH key locations. Thirty-six flows were identified as having the potential to generate a significant return on investment as a result of improved rail connectivity. These flows were converted into service level aspirations to express what is required to unlock the partial or full value of the flows. EEH, on behalf of its partners, will consider which flows to take forward as a programme of feasibility studies and business cases to understand how best to realise the value of the service level aspirations set out in this report.

2.9 Stakeholders' Views and Requirements

A stakeholder mapping exercise has been undertaken for the project. Stakeholders were identified and split into three groups to allow a more focussed approach to each:

- Informed: those stakeholders who are kept up to date on progress or outcomes;
- Consulted: those stakeholders whose opinions and solutions are sought throughout or at particular points; and

- Actively Involved: those stakeholders who will responsible or accountable for achieving the outcome.

Table 2.14 sets out the key stakeholders in each of these three groups and their needs identified to date.

Table 2.14: Key Stakeholders

Group	Sub-Group	Stakeholder	Needs
Actively Involved	Local Authority	Peterborough City Council	Town regeneration, economic return on investment, improved connectivity, improved quality of infrastructure, creation of jobs
	Combined Authority	Cambridgeshire & Peterborough Combined Authority	Regeneration, economic growth, return on investment
	Rail Industry	Network Rail/LNER	Value for money, improved passenger experience, adherence to standards, creation of an improved asset
	Statutory Transport Body	England's Economic Heartland	Economic return on investment, improved connectivity, creation of jobs, delivery of Transport Strategy
Consulted	Politicians	Local Council Members, MPs, CPCA Mayor	Investment in local area
	Transport Operators	Train/Freight Operating Companies	Improved rail services including performance improvements and increased revenue
		Bus Operators	Improved bus services including performance improvements and increased revenue
	Special Interest Groups	Cycle User Groups	Improve cycle infrastructure and accessibility

Group	Sub-Group	Stakeholder	Needs
		Disability Access Groups	Improve mobility/accessibility for those with disabilities.
		Railway Heritage Trust	Protection of former railway infrastructure
	Potential Investors/Developers	Property developers, car park operators	Economic return on investment Attractive commercial sites, good transport links, access to labour New development opportunities adjacent to key rail gateway
	Rail Industry	Office of Rail and Road	Adherence to regulations and protecting the interests of rail users
Informed	Local Residents / Passengers	Local Residents / Passengers	For the project to be a responsible citizen and improved quality of life and opportunities
	Rail User Groups	Transport Focus	Improved rail services
	Press (National, Local & Rail)	Press (National, Local & Rail)	Information

More detail on the approach to stakeholder and communications management is provided in the Management Dimension and demonstrates the support for the project and how engagement with different stakeholders has influenced the proposals.

2.10 Assessment of Investment Options

The assessment of investment options for the project has been undertaken in two phases, linked to the production of the previous SOBC and then a refinement of the preferred option as part of the preparation of this OBC.

2.10.1 Initial Option Assessment

In developing the SOBC for the project, an Option Assessment Report (OAR) was produced describing the work undertaken to identify a range of proposals that could address the problems and issues associated with the station.

The OAR defines the process by which a number of options were generated and sifted in order to identify potential option packages likely to achieve the project-specific objectives.

The option generation and sifting process involved:

- Generating a long list of options - a working group, comprising representatives from CPCA, PCC, Network Rail and LNER was established to carry out a detailed analysis of potential options for Peterborough station. The option generation process identified an initial long list of interventions;

- Initial Sift - all of the interventions were considered at a high level and considered in relation to the project-specific objectives and whether they were considered potentially deliverable against other key criteria. At this point some options were discarded. The other key criteria included the following:

    - Engineering Feasibility: The level/complexity of engineering required.

    - Operational Feasibility: The extent to which delivery is dependent on operational issues for both the railway and local highway network, plus those of supporting parties.

    - Complexity: The statutory processes that will affect the delivery of the project (for example, planning permission, lease /station change process, new or revised traffic regulation orders, stakeholder engagement).

    - Stakeholder Acceptance/Support: The likelihood of whether the project would be able to secure stakeholder and public acceptance/support.

    - Affordability: Whether the likely scale of funding sought is within acceptable parameters/budgets and whether alternative sources are available.

    - Timescale Feasibility: The extent to which the delivery programme is achievable.

- Of the retained options, these were then amalgamated into option packages to form a sensible number of shortlisted options for further appraisal. The creation of these option packages was an iterative process conducted through a number of workshops.

The option generation and sifting process led to the development of five option packages presented at the SOBC stage. These can be summarised as:

- Do Minimum: Passive provision for new platforms, minimal station/forecourt enhancements, minimal active travel improvements.

- Do Something Option 1: A new western station entrance, passive provision for new platforms, refurbishment of existing footbridge, removal and replacement of parcel bridge, medium station/forecourt enhancements, medium active travel improvements, relocation of Network Rail MDU to GNGE site, residential development on the existing MDU site.

- Do Something Option 2: As Option 1, but with consolidation of car parking nearer to the two station entrances, allowing further development on existing surface car parking sites.

- Do Something Option 3: As Option 2, but with maximum station/forecourt enhancements, maximum active travel improvements, a new western MSCP and commercial and residential development south of Crescent Bridge.

- Do Something Option 4: As Option 3, but with a new eastern MSCP, and further commercial and residential development south of Crescent Bridge set around the extended eastern station.

Option 2 was identified as the preferred way forward and was the subject of the LUF bid in July 2022. The OAR was presented as part of the supporting information for the LUF bid.

2.10.2 Single Option Design Development

Since the conditional award of the LUF allocation, work has progressed on the development of single option design, in line with established rail industry practices.

This process is summarised in the OBC Option Development Report, included at Appendix B and the more specific Station Option Development Report, included at Appendix C.

The refinement of the preferred option has been undertaken with a view to the achievement of the strategic objectives for the PSQ programme, but with a clear focus on the LUF allocation, committed local contributions and the timing over which the funding is available. The alignment of the various elements of the preferred option against the agreed strategic objectives is summarised in Figure 2.49.

Strategic Objectives

1) Capitalise on rail connectivity
2) Maximise growth by releasing land for development
3) Improve range & quality of facilities at station
4) Re-imagine the function and presentation of the station
5) Improve station-city connections in all directions
6) Enhance multi-modal connections
7) Address safety & personal security concerns
8) Social & environmental sustainability

Activity	Alignment with Objectives
Western Station Entrance	① ③ ④
Western Access & Surface Parking	② ⑤
MSCP on West	③ ⑤ ⑧
City Link (Queensgate Roundabout)	⑤ ⑦ ⑧
Station Square & Interchange	② ③ ⑤ ⑥ ⑦ ⑧
Eastern Station Entrance Upgrade	① ③ ④ ⑦ ⑧

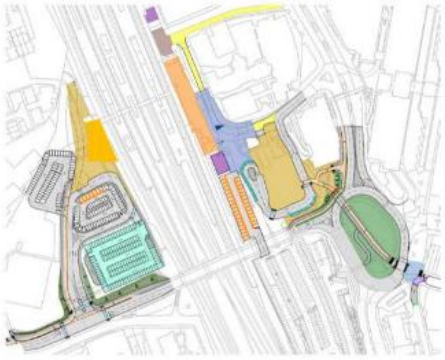

Figure 2.49: Alignment of Preferred Option with Strategic Objectives

It is intended to provide a catalyst for the remainder of the PSQ programme and clearly aligns with the ethos of the Masterplan Framework vision that was shown in Figure 1.4.

The following paragraphs summarise each main work package within the preferred option.

Station West

Building on the SOBC preferred option, the proposal is for a new western station entrance and station building, mostly facilitated by the relocation of Network Rail's MDU.

The construction of a new western entrance will reduce journey times for the 30% of users accessing the station from the west, reduce congestion levels at Queensgate Roundabout and the surrounding road network, as well as improving issues of customer satisfaction and passenger congestion.

By providing a new station entrance, development opportunities will also become available as will the ability to create new high quality public spaces contributing to the creation of a new characterful city quarter for the residents of Peterborough.

The new entrance will be accessed by a new traffic signal junction on Thorpe Road and will lead to a small area of surface car parking as well as a new MSCP.

The setting of the historic goods shed will be enhanced by the creation of a small public space in front of the new station building.

The principal elements are shown in the visualisation in Figure 2.50.

Figure 2.50: Station West Proposals

Station East

The aim of this work package is to provide a significantly enhanced gateway to the City by:

- Improvements to the existing station building and extending it to the south;
- Delivering a new station square allowing for easier onward journeys and enhancing the public realm and creating a clear interchange between rail and other modes of travel; and
- Catalyse the delivery of development plots in the vicinity of the station, with a priority on creating a strong sense of place.

To achieve this, two main changes are proposed. First, the relocation of taxis, drop-off, and disabled parking to an area within the current car park, freeing up space in front of the station for the new station square and allowing for better connections (tying into the Staton to City Link work package).

Second, the refurbishment and extension of the existing station building, reconfiguration of the gateline and relocation of the stairs to the footbridge. These elements will address passenger congestion issues on platform 1 and provides passengers with a better station experience.

Improvements to the footbridge as well as the removal and replacement of the parcel bridge, as identified in the preferred option in the SOBC, were excluded due to deliverability and affordability concerns and their impact on the overall value for money of the project.

The principal elements are shown in the visualisation in Figure 2.51.

Figure 2.51: Station East Proposals

Station to City Link

Also building on the SOBC preferred option, the Station to City Link work package aims to significantly improve the experience of travelling between Peterborough Station and the City centre. The new station square mentioned above will go some way in achieving this, but further improvements along this route are also required beyond the station frontage.

Most significantly, this will involve amending the underpasses at Queensgate Roundabout to create a more pleasant and open walking and cycling path that would connect to an at-grade pedestrian crossing to Cowgate.

This will allow a new public space within this roundabout to be created and remove the separation between the station area and the City caused by the A15 dual carriageway. The path will be designed so that a clear line of sight is created from the station entrance to the City centre, making the route easy to navigate. These measures also make the path more accessible for those with mobility issues. The upgrades to this route will also improve the connection to the Queensgate Bus Station, located adjacent to the A15 dual carriageway. This will allow for a more intuitive and accessible route to onward public transport connections.

Figure 2.52 shows a map of the proposed route that the new path would take, with Figures 2.53 and 2.54 showing visualisations of two key points of improvement. Figure 2.52 can be compared against the current configuration shown in Figure 2.41 to show the significant difference between the existing and proposed connection.

Car Parking

The provision of adequate station car parking is a key part of the preferred option, not only to meet the need of current and future rail users, but also to reflect the current station lease arrangements.

Consideration has been given to how rail station parking provision can be maintained overall and managed through the delivery of the project – this is summarised in the Car Parking Strategy, included at Appendix D. Use of PCC's parking assets will be considered on a temporary basis to ensure that sufficient car parking is provided as the project is delivered.

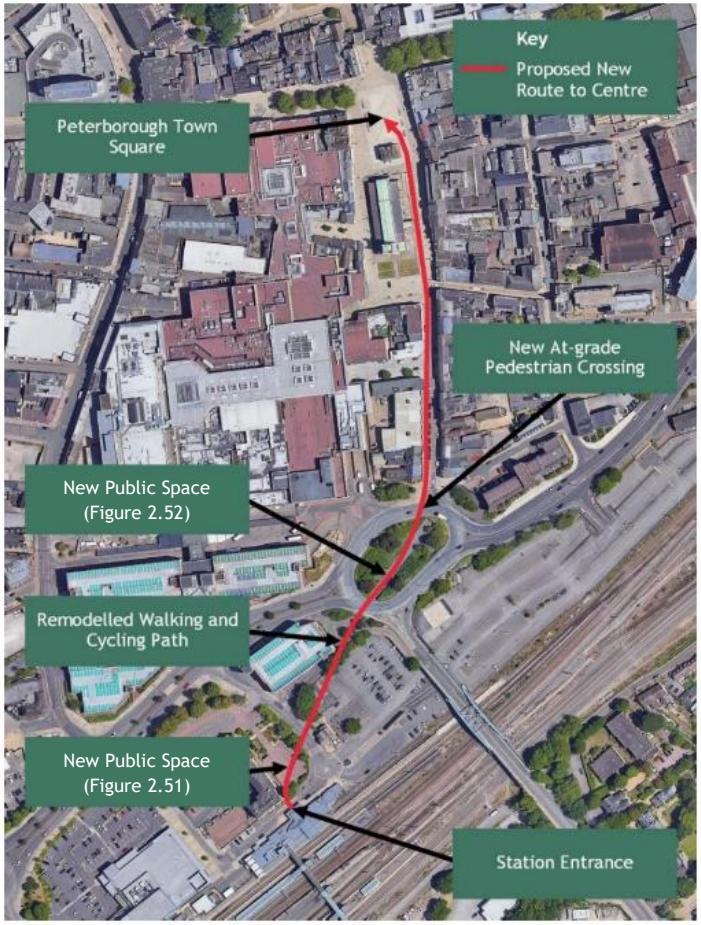

Figure 2.52: Map of Proposed New Route to the City Centre

Figure 2.53: Proposed Station Square (Station East)

Figure 2.54: Proposed Public Space at Queensgate Roundabout (Station to City Link)

3 The Economic Dimension

This chapter of the OBC identifies the impacts of the preferred option and the resulting value for money. The economic, environmental, social and distributional impacts of the project are all examined, using qualitative, quantitative and monetised information to determine the extent to which the project's benefits outweigh its costs.

3.1 Options Appraised

A robust process was adopted for the generation and shortlisting of options, as well as the identification of the preferred option, as set out in the OBC Option Development Report that can be found in Appendix B.

HM Treasury Green Book guidance recommends that the economic appraisal at OBC stage should be undertaken of the preferred option set against a "business as usual" option, so this approach has been taken. Given the lack of any improvements currently programmed for Peterborough Station, the "business as usual" option is that there is no change to the station, save for some minor improvements to station access and pedestrian routes and station cycle parking, with a continuation of all of the issues described in the Strategic Dimension.

However, passenger growth in the future has been based on Network Rail's projections as set out in their 'Peterborough Station Options Modelling Station Capacity Assessment'.

3.2 Methodology and Assumptions

The economic assessment undertaken considered the DfT's TAG guidelines, with specific reference to the following documentation:

- TAG Unit A1.1 – Cost-Benefit Analysis
- TAG Unit A1.2 – Scheme Costs
- TAG Unit A1.3 – User and Provider Impacts
- TAG Unit A4.1 – Social Impact Appraisal
- TAG Unit A5.1 – Active Mode Appraisal
- TAG Unit M1.1 – Principles of Modelling and Forecasting

- TAG Unit M4 – Forecasting and Uncertainty

The methodology used also references the DfT Value for Money Framework (July 2021) and guidance issued by Network Rail.

Given that the project includes a number of elements that will be bringing benefits from a range of different sources, the approach to estimating benefits has varied across the different components.

More details on the methodology and assumptions can be found in the Appraisal Specification Report, included at Appendix E.

3.3 Present Value of Costs

3.3.1 Capital Costs

The estimated cost of the project (excluding the MDU relocation) was used to develop the Present Value of Costs (PVC) through a series of steps, namely:

- Start with the 2023 estimate for each project element and profile between now and the opening year (2023-2026);;
- Remove allowances for risk contingencies and construction price inflation;
- Adjust for real price inflation and convert to market prices;
- Apply optimism bias – this was undertaken at the rate set out in TAG for an OBC, but with different rates applied to different elements, as suggested by the guidance;
- Discount to 2010 prices using GDP deflator and apply the discounting factor provided in the TAG Databook.

The calculation of the PVC for the different project elements is shown in more detail in the Economic Appraisal Technical Note include at Appendix F. The resulting PVC for the preferred option is £31.8 million (2010 prices).

The costs of relocating the Network Rail MDU and the Active Travel Fund Round 4 improvements have been excluded from the PVC calculation as they will be covered by Network Rail and CPCA/PCC as a complementary contribution, and so would essentially be netted off in any calculation of value for money.

3.3.2 Operating Costs

As described in the Financial Dimension, it is anticipated that costs of maintaining any new rail assets will be incorporated in Network Rail's settlement for the next Control Period. The operational costs for the new station facility (staffing and day to day running) will form part of the Station Change proposal and will be addressed through the regulated regime. At this time, it is assumed that the costs of operating and maintaining the proposed new and improved rail assets are £500,000 per annum.

PCC will absorb the maintenance costs of the new transport infrastructure that it provides, utilising its existing highway maintenance budgets.

For the value for money calculation, the assumed additional operating costs have been converted to 2010 prices by:

- Setting up operating costs over the appraisal period (2026-2085);
- Adjusting for real price inflation and market prices by using real GDP growth, and market price adjustment factor, respectively;
- Applying optimism bias of 21% for operational expenditure based on Table 3, TAG Unit A5.3; and
- Discounting to 2010 prices using GDP deflator and applying the discounting factor provided in the TAG Databook.

The resulting PVC of operating costs is £7.2 million (2010 prices).

3.4 Present Value of Benefits

As set out in the Strategic Dimension, the project consists of a number of elements, all of which will contribute to the overall benefits of the project, but in different ways.

For example, a new western station entrance will reduce journey lengths for those trips accessing the station from the west, both now and in the future. This will have journey time savings for those trips and associated reduction in highway congestion and related accidents on the local road network as a result of those trips.

Rail passengers will have a further benefit in their walking time from the new car park locations to the station platforms, adding to the overall reduction in journeys. Active modes will benefit from the new facilities both at the station, but also the enhanced connections to the City centre.

However, there is not one single appraisal tool that can pick up all of these benefits, and so the approach has been to use a range of different appraisal tools to assess the benefits of the various project elements to provide an aggregate of the overall benefits.

Table 3.1 summarises the approach taken to estimate the benefits for each of the project elements, using the most appropriate appraisal tool available.

Table 3.1. Summary of Approach to Estimating Benefits for Preferred Option

Benefit / Approach	Highways & Accidents	Active Modes	Station Facilities	Access Journey Time	Mode Shift
Project Element	**TUBA**	**AMAT**	**PDFH**	**Value of walking time**	**Reduction in vehicle-km**
Consolidation of Surface Car Parking	✓			✓	
New Western Station Entrance		✓	✓	✓	✓
Eastern Station Square and Interchange	✓				
Station to City Connectivity Enhancements	✓	✓		✓	
Existing Eastern Station Works			✓		✓

The resulting Present Value of Benefits (PVB) arising from the preferred option are shown in Table 3.2.

More detail on the approach to estimating the project's benefits is included in the Economic Appraisal Technical Note.

Table 3.2: Present Value of Benefits for Preferred Option

Benefits	Value (£,000s) 2010 prices, discounted to 2010
Highways	23,200
Station Access	29,000
Station Facilities	8,800
Mode Shift	1,100
Active Modes	2,000
Indirect Tax Impact (from station demand uplift)	-1,400
Present Value of Benefits (PVB)	**62,700**

3.5 Wider Economic Impacts

The starting assumption of all transport appraisals is that the welfare effects of economic impacts are captured by benefits to users. However, it is recognised in TAG that if there are market failures that means the economy is not functioning efficiently and user benefits will not fully capture all of the welfare effects associated with economic impacts. This has the result that wider economic impacts will occur beyond those monetised under user benefits alone.

TAG identifies that where wider economic benefits are incorporated into economic appraisal, the presence of market failures should be identified and justified. There are a number of market failures present in Peterborough that justify the need for, and benefits associated with, regenerative investment.

Throughout the City centre, there are issues of imperfect competition in land markets and the rationing of land have led to underinvestment in new floorspace and facilities for businesses and residents. This can be seen in the very low rental rates for commercial floorspace in the city centre, and in a large number of underutilised sites. Most visibly, the sites surrounding Peterborough Station have remained highly underutilised for a number of years in spite of commercial and residential interest.

Alongside the impact that imperfect competition has had on land markets and development, the project will generate significant positive externalities through the provision of public goods and improved amenity of public spaces and sites in the area surrounding Peterborough Station.

Based on the potential land uses identified in the Station Masterplan and using DLUHC guidance, the potential wider economic impacts of the project have been assessed, noting that these relate to the wider PSQ programme area and not just to this project, hence they have not been included in the value for money calculation set out in this OBC.

More detail on this assessment is included in the Economic Appraisal Report, but the outcome is an estimated net Land Value Uplift of around £875,000 (PV, 2010 prices).

3.6 Environmental Impacts

The environmental risks and opportunities relating to the project have been identified and the key findings issues are summarised in the following tables for each of the criteria set out in TAG, utilising a RAG (Red/Amber/Green) ratings system, as follows:

- Red: policy conflicts and environmental constraints that cannot be addressed using established and readily deliverable design solutions or mitigation thereby posing a threat to project delivery;
- Amber: policy conflicts and environmental constraints that, whilst potentially significant, can likely be resolved / mitigated with potential implications for program and budget; and
- Green: policy compliant environmental constraints that are likely be resolved/mitigated within programme and budget.

The RAG rating allows for professional judgement and the overall RAG rating reflects the 'most adverse category' identified in the assessment.

3.6.1 Noise

Amber
The scheme does not traverse or lie adjacent to any Noise Important Areas (NIAs), however there are eleven NIAs within a 2km radius and some sensitive receptors include residential properties and West Town Primary Academy. *Construction* There are likely to be significant construction-phase noise impacts considering the proximity of nearby residential properties to the development. This is likely to require a Section 61 consent. Noise arising from demolition and construction has the potential to give rise to adverse impacts, especially at the receptors located nearby. However, the potential impacts are likely to be temporary and are also likely to be relatively short term. With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), potential impacts

associated with noise and vibration of demolition and construction can be mitigated, although it is noted that working hours are likely to be limited to the daytime. At this stage it is not known whether night-time works will be required.

Operation

Any increase of operational train noise levels may not be too dissimilar to the current levels. The proposed car park of the western side of the station has the potential to give rise to adverse impacts as a results of increased vehicle movements. Consequently, there may be increased noise levels at adjacent residential receptors and the local school. However, overall it is not anticipated that there will be any constraints associated with operational noise levels requiring installation of additional mitigation measures such as acoustic barriers. If anything, it is expected that traffic noise levels will be reduced as a result of modal shift to more sustainable modes of transport once active travel connections are improved.

Risks

There is the potential for an increase in noise levels at nearby noise sensitive receptors due to demolition, construction and operation of the scheme, arising from mobile and stationary sources. No noise and vibration modelling has been undertaken at this stage, and the potential impact on noise and vibration is currently not known. At this stage, noise surveys have also not been carried out, which would normally determine a baseline noise level for the area.

Opportunities

Mitigation and enhancements to noise protections with the scheme, such as layout, orientation and noise barriers could be considered as part of a sustainable design.

Quantified Assessment

The impacts on noise have been estimated using AMAT outputs(£1.2k) and part of the MECs as a result of modal shift from highways to rail (£7.3k). Further detail can be found in the Appraisal Summary Table at Appendix G.

3.6.2 Air Quality

Amber

The scheme is not situated within an Air Quality Management Area (AQMA) and there are no AQMAs within a 2km radius. There are sensitive receptors located close to the scheme, including residential properties and a school.

Construction

In the short term, construction activities have the potential to generate dust due to earthworks, construction and demolition. A construction dust assessment should be carried out, to determine the potential risk of dust to dust soiling and human health, along with mitigation measures, if required.

At this stage, construction traffic volumes are not expected to be large enough to cause a perceptible change in air quality. Any changes in air quality would be short term and temporary in nature, lasting only the duration of the demolition and construction phase. At the time of writing, no construction traffic data is available to screen traffic movements against the Environmental Protection UK (EPUK)/Institute of Air Quality Management (IAQM) land use guidance. This should be carried out once data are available, to determine if an air quality assessment would be required.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant air quality effects are not anticipated during construction.

Temporary diversion routes during the construction phase of the scheme are likely to be localised but need to be monitored and reviewed regularly to minimise impacts associated with congestion and idling traffic.

Operation

As with most urban areas, road transport is a prime source of the NO2 and particulate matter across the City. The scheme is expected to improve air quality and reduce NO2 and particulate matter levels through the optimisation of the local traffic network surrounding Peterborough Station and the increase in rail patronage. These improvements to air quality will particularly benefit vulnerable groups who have been found to be living within proximity to the station, such as children and low-income households.

The optimisation of the local traffic network is facilitated by the construction of a new western station entrance and car parking provision. Previous studies have revealed that 30% of station users travel from the west along Thorpe Road. Providing station access from the west with adequate car parking provision will ease pressure on the city's road network at Crescent Bridge/Bourges Boulevard, reduce congestion, and subsequently air pollution. The overall reduction in private vehicle use through the increased rail patronage for longer journeys will additionally present air quality benefits for the wider region – not just the immediate area surrounding the station.

Overall, the scheme is likely to promote modal shifts to more sustainable modes of transport and support air quality improvement in the longer-term through reduced motorised vehicular journey distances.

Risks

Air quality modelling has not been undertaken at this stage and therefore potential impacts of the scheme on nearby sensitive receptors are not known. Similarly, likely predicted concentrations are therefore not available for comparison with critical loads to determine impacts on ecological receptors sensitive to nitrogen or sulphur deposition. Although it is considered that the scheme presents a low risk to air quality, this cannot be confirmed at this time. This could present a cost and programme risk at later stages of scheme development.

Opportunities

The scheme could lead to improvements in local air quality in the longer term, by enabling mode shift through active travel improvements and reduced journey distances by motorised vehicles and congestion due to the provision of the western access and car parking.

Quantified Assessment

The impacts on air quality are estimated using AMAT outputs (£0.8k) and part of the MECs as a result of modal shifts from highways to rail (£7.2k).

3.6.3 Greenhouse Gases

Green

In July 2019, PCC declared a climate emergency and have committed to make the Council's activities net-zero carbon by 2030, and to make Peterborough a net-zero carbon city by 2030.

The scheme is expected to reduce carbon emissions through an increase in rail patronage and reduction in private vehicle use. The increase in rail patronage will be driven by improved station facilities, better access to the station by pedestrians, cyclists and buses, enhanced car parking, and new active travel connections between the station and the rest of Peterborough.

A key part of the scheme is the provision of a new western station entrance and associated car parking facilities. The station is currently only accessed directly from the eastern side of the rail lines, including all car parking provision. This means that passengers accessing the rail station often need to travel further than is necessary, adding to walking and cycling distances and increasing highway congestion and carbon emissions. The scheme has the potential to broaden access and car parking choices whilst providing new facilities for electric vehicle charging and enhanced integration with other modes in line with PCC's City Centre Transport Vision, and improving active travel infrastructure, reducing rail users' dependency on private cars to reach the station.

As a result of this expected reduction in private vehicle use/mileage, there are expected benefits related to carbon emission reductions.

Construction

There is potential for Greenhouse Gas (GHG) emissions during the construction of the project. A Construction Environmental Management Plan (CEMP) will be produced and used during the construction of the interventions to ensure that best practice measures are adopted to minimise GHG emissions associated with the construction activities and materials used, where practicable.

Operation

Low carbon technology will be used through the scheme's design, construction, and operational phases. The intention is to ensure that carbon emissions throughout the design stage are carefully considered and designed out where possible embracing the principles of the circular economy. In addition, the Peterborough Integrated Renewables Infrastructure project (PIRI), launched in July 2020, aims to design a low carbon, smart energy system, which heats and powers the city via a web of integrated smart energy systems. The PIRI design combines a heat network, electricity network and electric vehicle infrastructure under one smart holistic scheme. PIRI brings together energy generation, demand management and storage, unlocking efficiencies and serving as a blueprint for other cities. Through a separate £2m feasibility project, funded by Innovate UK and supported by Cranfield and SSE, there are plans to extend the City's renewable energy infrastructure to the Station Quarter.

Through design and compliance with railway standards, it is also unlikely that the proposed scheme would pose a greater risk of impacts from climate change, such as flooding or temperature extremes, than the existing station.

Risks

The materials that will be used in the scheme are currently unknown. Where possible, however, the scheme will look to promote the use of low carbon materials. There is the potential for a large amount of concrete to be required for the proposed scheme, which is considered to be a carbon intense material.

It is also unknown at this time as to where the construction materials would be sourced from as this could incur emissions in transporting the material to site. This could also be considered as an opportunity to reduce emissions, by sourcing materials locally where possible.

Opportunities

The operation of the scheme will encourage more journeys to be taken by public transport using the rail network. This could reduce the number of longer car journeys and therefore the volume of emissions emitted.

Assessment of the impact of a changing climate on the drainage of the scheme will likely be required within the drainage assessment. This will identify what design measures are required to increase the resilience of the proposed option due to climatic changes.

It is recommended that an initial carbon assessment is undertaken at the earliest opportunity during the preliminary design stage. This will allow identification of carbon hotspots and facilitate effective carbon reduction in accordance with PAS2080 carbon management principles and DfT guidance. This initial assessment can be updated during future stages of the project lifecycle to demonstrate the benefits of adopting this approach. This will help to minimise any climate impacts associated with undertaking the development.

Quantified Assessment

The impacts on greenhouse gases have been estimated using TUBA outputs (£0.36m), AMAT outputs(£8k) and the marginal external costs (MECs) as a result of modal shifts from highways to rail (£63k).

3.6.4 Landscape and Townscape

Green

The scheme lies within National Character Area (NCA) 88, Bedfordshire and Cambridgeshire Claylands, which is a broad, gently undulating, lowland plateau dissected by shallow river valleys that gradually widen as they approach The Fens NCA in the east. Thorpe Meadows & Peterborough Sculpture Park is located circa 300m south-west of the scheme's footprint and is recognised for providing important habitat for wildlife as well as its heritage assets and amenity value. This is managed by the Nene Park Trust – a registered charity ensuring its protection. It is recommended that consideration is given to how this local landmark interacts with the wider PSQ programme.

Construction

In the short term, construction activities have potential to impact upon the townscape and landscape surrounding the site, lasting the duration of demolition and construction. However, any impacts from construction vehicles and materials are likely to be short term and temporary. However, with the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant landscape and townscape effects are not anticipated during construction.

Operation

In addition to the issues raised within the Historic Environment assessment, A Landscape Visual Impact Scoping Assessment will be required, and likely appraisal/ assessment following from this scoping exercise. This assessment will identify any potential longer-term impacts and

potential mitigation measures. The assessment will inform the overall design, scale and massing of the scheme.

Risks

The scheme's development should be mindful of the sensitivities of NCA 88, Thorpe Meadows & Peterborough Sculpture Park and the listed Wagon Shed on site. Impacts on these stemming from design could present a cost and programme risk as the project progresses.

Opportunities

The scheme could lead to improvements in townscape and landscape, providing high design quality additions to the City of Peterborough and the wider region.

3.6.5 Biodiversity

Green

Currently, surface car parking facilities make up approximately 48,000m2 of space in the vicinity of Peterborough Station. This constitutes a large area of paved surfaces, void of any aspects of natural capital. The scheme aims to consolidate these surface car parks to unlock this land for other uses. This will allow the incorporation of natural capital elements into the design – particularly into the proposed public realm features.

The closest ecological site to the scheme is Nene Washes, an internationally designated RAMSAR site, Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA). It is located 1.6 km south-east of the scheme. The scheme is unlikely to impact on the site, however, consultation with Natural England is recommended if case assent is required. There are no Tree Preservation Orders or Conservation Areas within the study area.

Construction

The potential impact is likely to be low, however no ecological surveys have been carried out to confirm this definitively at this stage.

As works are planned for the existing station building itself, there is the potential to impact on bats, should the station be being used by roosting bats. An ecological impact assessment including bat scoping and potentially bat surveys should be undertaken to better understand this risk.

There may be other ecological constraints depending on the specific design of the new highway and active travel connections. For example, there may be structures/buildings used as nesting/roosting sites which could be impacted by the development through demolition/modification and/or disturbance from noise/vibration/artificial lighting.

Operation

Although the area within the scheme's footprint is primarily urban, there is potential for isolated urban trees and localised vegetated areas to be impacted by the scheme. There is potential for protected species to use the existing rail corridor as a green corridor, and the potential for bats to use the station building itself.

The scheme will seek to ensure at least a 10% measurable increase in biodiversity post development through elements such as the planting of trees/vegetation and provision of landscaped green spaces specifically designed to benefit the biodiversity in the vicinity of this location.

Risks

Consideration also needs to be given to any new drainage arrangements and connectivity to the nearby waterbodies/watercourses such as the River Nene, as any volume, flow or water quality changes could impact negatively on biodiversity. This is especially important considering the high sensitivity of nearby receptors such as Nene Washes.

Opportunities

Opportunities to improve biodiversity should be implemented during the next stage of scheme development, such as the maximising green scape (as described in the Landscape section below) and providing habitat such as nesting boxes. A Biodiversity Net Gain Assessment should be undertaken for the project during the preliminary design phase in line with client and legal requirements to quantify the benefits of such initiatives.

3.6.6 Historic Environment

Green

The Peterborough City Centre conservation area is located <0.1km east of the scheme. The conservation area has a number of key landmark buildings that are iconic across the City centre and make a key contribution to its identity including the Cathedral, the Guildhall and the Church of St John the Baptist. In addition, it has a number of important civic spaces and squares, including Cathedral Square, St John's Square, the Cathedral Precincts, and spaces along Bridge Street and Long Causeway. Commercial activities are most prominent throughout reflecting its city centre location.

There are four Scheduled Monuments within a 2km radius. It is anticipated that the proposed development could only really impact upon two of these:

- Peterborough Cathedral Precincts, including Table Hall and Infirmary Arcade – 0.8km east
- Touthill and site of Castle Bailey - 1km east

Peterborough Cathedral Precincts is a registered park. Careful consideration should be given to how the new active travel connections interact with these heritage parks ensuring that any direct or indirect impacts are mitigated as much as practicably possible. A Scheduled Monument Consent may be required depending on the scope of the proposed design.

There are 131 listed features within a 2km radius of the scheme, of which a significant proportion are concentrated within close proximity, including the Grade II listed Wagon Repair Shed. These features need to be considered when developing the design of the new highway and active travel connections into the station. Specific mitigation measures will also need to be implemented during the construction phase to ensure that these features are not negatively impacted. Listed Building Consents may be required depending on the likely impacts.

Construction

Construction activities associated with both the station and the setting of the listed buildings has the potential to impact upon the assets and what makes them 'special'.

It is essential that a sensitive approach is taken to the design to ensure that the existing listed assets are protected. Similarly, any new development must be sympathetic to the adjacent listed assets and their setting.

With the implementation of appropriate design consideration, mitigation and best practice measures, it is anticipated that a scheme can be developed which would protect and potentially enhance the listed buildings and their setting.

Historic records highlight that Queensgate Roundabout is located on the historic graveyard of St John's Church. During the original construction of the roundabout, graveyard remains were exhumed and reburied in the grounds of the Cathedral. Accordingly, consultation with the local planning authority should be taken at the outset of the design and care must be taken to ensure that all legal requirements are understood, and necessary consents obtained.

Operation

It is considered unlikely to that there would be impacts from the operation of the proposed scheme once constructed – the scale of these impacts will become clear as scheme development progresses.

Risks

The design of the scheme should facilitate best practice and sensitive appreciation of the historic assets - poor design and a lack of understanding of the assets and their quality could result in a loss if 'specialness' and compromise the overall listing of the assets.

Opportunities

There are opportunities to improve the setting of the existing historic assets. Public realm improvements have the potential to rationalise the setting of the Grade II listed Wagon Repair Shed, enhancing the environment.

3.6.7 Water Environment

Amber

The scheme lies within Flood Zone 1.

Construction

Construction activities will result in the disturbance of soil. This could lead to the mobilisation of sediment within surface run-off, which could be transported into a surface watercourse.

Flood risk can increase if permeable areas are increased. However, the area of works associated with the proposed scheme are already hardstanding so there would not be an increase in permeable surfaces given the current design. As such, surface water flood risk is unlikely to be impacted.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant road drainage and water environment effects are not anticipated during construction.

Operation

Consideration of drainage mitigation for the scheme and potential for interaction with flood storage may be required at the next stages of environmental assessment. Any impacts of additional discharges from new drainage into nearby waterbodies/watercourses such as the River Nene also need to be assessed in more detail, including the requirement to obtain any particular consents from regulators.

Risks

The mitigation for water quality and hydrology impacts arising from road/rail drainage is well researched and understood, therefore any impacts identified would be mitigated through good design to ensure no conflict with policy or legislation. The design of the scheme should facilitate good pollution control practice.

However, at this stage, a drainage strategy is not available and conclusions cannot be drawn as to whether an Flood Risk Assessment (FRA) would be required.

Opportunities

There is the potential to implement Sustainable Drainage Systems (SuDS) as part of the drainage design for the scheme. SuDS can reduce flood risk (often arising from permeable surfaces in areas not at risk from river flooding), improve amenity and biodiversity by providing habitat.

In addition to the assessment of environmental impacts, delivery of the project should ensure that all measures are taken to minimise waste with recycling of materials and opportunities for a circular economy used at all times.

3.7 Social and Distributional Impacts

The social impacts of the project have been identified qualitatively at this stage for each social impact covered by TAG, utilising the scoring system set out within it. The current assessment of social impacts is summarised in Table 3.3.

Table 3.3: Summary of Social Impacts

Indicator	Assessment	Comments
Accidents	Slight Beneficial	Through the changes in traffic on the local road network and modal shift from car to rail, it can be expected that accidents will generally decrease in the vicinity of the station. However, the new western entrance to the station may locally increase the number of cars trying to access the car parking facilities in this location. This could lead to a higher risk of accidents in the immediate vicinity of the new junction. COBALT outputs have been used to appraise the impacts of the project and the project is forecast to reduce accidents by small extent over the appraisal period. The qualitative assessment has outputted an NPV of £122,000.
Physical Activity	Slight Beneficial	The project has the potential to reduce car use by encouraging increased rail travel and, through the new western entrance, reduce journey distances. The project incorporates active transport (cycling and walking) into the station from all directions to promote physical activity.

Indicator	Assessment	Comments
		In particular, the active link improvements from the City centre would result in slight beneficial physical activity impacts as suggested by the AMAT outputs of £1.2m.
Security	Slight Beneficial	As the new station building has not yet been designed in detail and constructed, it is difficult to determine potential security impacts. Through best practice and informed design, it is expected that personal security concerns will be minimised in and around the new western entrance to the station. Additionally, the new and refurbished station buildings will be designed in accordance with relevant security compliances. The current walking routes to the City centre will be improved, addressing existing security concerns. The project will also have positive impacts on informal surveillance, landscaping, and slight positive impacts on emergency calls, giving a slight beneficial impact overall.
Severance	Neutral	The provision of the new western entrance and additional active mode facilities will assist in reducing the severance caused by the existing rail lines and so the project will reduce severance to wider users. However, there is a forecast traffic increase to the west of the station, potentially have negative impact on pedestrian movement but not considered significant, so the overall analysis indicates a neutral impact.
Journey Quality	Large Beneficial	The new western station entrance will be a new-build construction and although detailed design has not yet been undertaken, it can be assumed that the station facilities will meet the latest quality standards. Pedestrian modelling of the existing station has also been undertaken and the outputs considered so as to reduce congestion hotspots and aide movement throughout the station. Additional passenger facilities, retail and beverage opportunities will be provided. As the station design is further progressed, consideration will be given to ensure a high quality passenger experience. Key journey quality indicators have been assessed, suggesting positive impact around traveller care, views and stress as a result of new and refurbished station buildings, the new station square and the consolidation of car parking.

Indicator	Assessment	Comments
		Impacts on journey quality have been estimated using AMAT outputs (£0.6m) and station facilities WTP benefits (£8.8m) for a total NPV of £9.429m.
Option Values	Scoped out	Scoped out of this assessment as the project does not involve the provision or loss of transport services
Accessibility	Slight Beneficial	Overall, the station has the potential to be well connected to the rest of Peterborough via the proposed transport improvements and proximity of the existing bus station. It is important to make sure these facilities are properly designed and implemented to accommodate for the accessibility issues in relation to walking connectivity. The assessment has been carried out based on the key barriers impacting on accessibility indicators. The project is expected to mainly improve the availability and physical accessibility of transport, and maybe travel horizons.
Affordability	Slight Beneficial	It is expected that the scheme will provide positive impacts to deprived areas that surround the station. The improved connectivity will directly benefit those without access to a car and provide a more equitable transport network. The project also results in forecast reduction in vehicle operating costs.

A distributional impact appraisal has been conducted by applying the three-step approach defined in TAG Unit A4.2.

A screening exercise has been carried out to identify likely impacts derived from the project on specific vulnerable groups including children, ethnic minorities, elderly, women and low-income people. Each indicator has been assessed individually. From the screening exercise, the following indicators were progressed to Stage 2:

- User Benefits - Travel time benefits and the vehicle operating costs for the proposed scheme have been assessed using TUBA outputs from the main economic appraisal. Results show that all income quintiles would expect beneficial impacts from the project. Groups of income quintiles 1 and 2 are scored as slight beneficial, group income quintile 5 is scored as moderate beneficial and groups of income quintiles 3 and 4 are scored as large beneficial. People in the lowest two quintile groups, however, would receive a disproportionately small share of the benefits.

- Accidents – Accident benefits have only been considered as part of MECs, resulting from modal shift from car to rail and active travel trips. The total benefits amount to around 0.4% of the total estimate of benefits. Based on this result, in the interest of proportionality, it was deemed appropriate to undertake a qualitative assessment. This resulted in the assessment of impacts on children as neutral, older people as slight adverse, pedestrians as slight beneficial, cyclists as neutral and motorcyclists as slight beneficial;

- Severance - The assessment of social impacts of severance focuses on causing or removing physical barriers, principally resulting from traffic flow changes resulting from the project. Road links with a significant change in traffic flow (+/-10%) are mapped together with the vulnerable groups in terms of severance as well as the key amenities identified. This resulted in the assessment of impacts on children as slight adverse, older people as slight adverse, people with disability as slight beneficial and no car households as slight beneficial.

Further details of the methodology for the social and distributional assessments can be found in the Economic Appraisal Report.

Given that the project involves new rail infrastructure, primarily in terms of the station building and western access, social impacts can also be considered using the Network Rail Aspects and Impacts Guidance Note, and include:

- Supporting Britain’s economic development.

- Respecting cultural history and rail heritage;

- Making rail a great experience;

- Inspiring tomorrow’s workforce;

- Keeping communities safe;

- Creating positive industry partnerships;

- Making travel accessible;

- Creating engaged employees;

- Connecting communities with the environment; and

- Being a caring neighbour.

An evaluation of these social impacts for the project is presented in Table 3.4.

Table 3.4: Further Social Impact Assessment

Theme	What Does This Mean?	Proposed Impacts
Supporting Britain's economic development	Harnessing the power of rail to create social and economic opportunities for people and businesses	The project will act as an enhanced connectivity gateway for Peterborough and the wider region with improved connections from the local area. Construction of the station will provide construction jobs, supply chain boosts etc.
Respecting cultural heritage and rail history	Appreciating cultural history and rail heritage – both the physical heritage and the people's history	The project and surrounding development are proposed to respect and complement existing historic assets and offer improvements and enhancements where possible.
Making rail a great experience	Creating a life-enhancing railway experience for all who use it	The project will improve access journey times, station accessibility and facilities, increasing the overall experience of travel for passengers.
Inspiring tomorrow's workforce	Enabling access to the right skills, at the right time, from the UK's diverse talent pool	Projects such as Peterborough Station show practical examples of technical skills offering inspiration to future engineers, but, potentially through engagement, practical STEM project experience.
Keeping communities safe	Keeping everyone safe around the railway, every day	The redevelopment of the area around the station and transport enhancements will promote inclusivity and perceived safety. Appropriate surveys will be undertaken in relation to noise and lighting to ensure that the proposed development does not detrimentally impact upon the surrounding community.
Creating positive industry partnerships	Developing relationships, in the supply chain and beyond, that are ethical, responsible and have a positive social impact	The construction of the project may bolster the supply chain linkages and create work for SMEs.
Making travel accessible	Making rail infrastructure and information available to everyone	Accessibility improvements will open the rail network up to those who have previously experienced issues accessing it e.g. through the provision of the western access and active mode improvements.

Theme	What Does This Mean?	Proposed Impacts
		Station design will ensure that the site is easier to navigate.
Creating engaged employees	Be a business that people are proud to work for	Employment opportunities are likely to be generated during construction of the project and following increased operations associated with the proposed new station. An improved working environment and gateway to the City will help to instil pride of place in workers.
Connecting communities with the environment	Working to protect and enhance our lineside surroundings and the wider environment	The project will increase access to high quality public realm for the town of Peterborough and all those who use the station.
Being a caring neighbour	Promoting positive relationships with our lineside communities	Provision of new services within the station may benefit neighbouring occupiers. Visual amenity and public realm improvements associated with the project will improve amenity for neighbouring occupiers. Management during construction and operation will be required to prevent adverse impact upon neighbouring occupiers.

3.8 Value for Money

Table 3.5 summarises the value for money assessment for the preferred option setting out the calculated benefit : cost ratio (BCR) for the core scenario described in the Economic Appraisal Technical Note.

Table 3.5: Core BCR of the Preferred Option

	Assessment	Comments/Notes
PVB (£,000s, 2010 prices)	62,700	Cumulative value of user benefits
Capital Costs PVC (£,000s, 2010 prices)	31,800	Derived from the information in the Financial Dimension and assuming required level of Optimism Bias at OBC stage
Operating Costs PVC (£,000s, 2010 prices)	7,200	Derived from the information in the Financial Dimension
Infrastructure Maintenance PVC (£,000s, 2010 prices)	-5	Derived from reduced maintenance costs arising from mode shift from road to rail
Revenue Transfer PVC (£,000s, 2010 prices)	7,700	Increased revenue arising from an increase in rail patronage – this is subtracted from the overall PVC
Net Present Value (NPV) (£,000s, 2010 prices)	31,400	PVB-PVC
BCR	**2.0**	**PVB/PVC**

According to the DfT Value for Money Framework (July 2017) Value for Money (VfM) categories are defined as follows:

- Poor VfM if BCR is below 1.0;
- Low VfM if the BCR is between 1.0 and 1.5;
- Medium VfM if the BCR is between 1.5 and 2;
- High VfM if the BCR is between 2.0 and 4.0; and
- Very High VfM if the BCR is greater than 4.0.

Therefore, it is clear that as currently calculated the preferred option provides **High** VfM in accordance with TAG criteria.

3.9 Sensitivity and Uncertainty Analysis

In addition to the core growth scenario assumed (which uses Network Rail growth forecast to 2042 and then TAG Databook v1.21 growth forecasts beyond that date), two further growth scenarios were tested:

- No growth beyond 2042; and
- Provisional TAG Databook v1.22 growth beyond 2042.

In both cases, the BCR remains at 2.0 – High VfM.

A further set of sensitivity tests were carried out to test the value for money results shown in Table 3.5, including:

- Reduce journey quality benefits by half: this shows the impact of low willingness to pay to the respective station facility improvements;
- Limit station uplift factor at 1%: this examines the impact of limiting the station demand uplift factor at 1% to estimate the induced demand from the station facility improvements;
- No cycling demand uplift assumed in AMAT: this examines the impact of no cycle demand uplift as a result of the new western access and City link as AMAT inputs;
- Increase additional operating costs to £750,000: this shows the impact of possible cost increases for staffing and maintenance of the station in the future; and
- Reduce the Network Rail growth rate between 2019 and 2042 by half (15.5%): this examines the impact of a reduced demand growth between 2019 and 2042.

The impacts of these sensitivity tests are as follows:

- There is 50% reduction in station facilities benefits, resulting in 7% reduction for total benefits as a result of reducing the journey quality (willingness to pay values) by half;
- Limiting the station uplift factor at 1% has a significant impact on modal shift benefits and direct taxation from the uplift, which would be reduced by 45% and 46% respectively, however, the reduction in total benefits would be minor given the scales of the individual benefits, but there is an increase in total PVC by 15% due to reduced revenue transfer from the demand uplift;

- When no cycling demand uplift is considered in the AMAT analysis, there would be a reduction of 78% in active modes benefits, resulting in a 2% reduction of the total benefits and the infrastructure maintenance cost savings would also be reduced by 5%;

- An increase in annual operational costs leads to 12% increase in total costs; and

- Reducing the growth rate in rail demand between 2019 and 2042 has some impacts on access journey time, station facilities and mode shift benefits, which would be reduced by around 10% respectively; the indirect tax impact from station demand uplift and the revenue transfer would also be reduced by 9%-14%.

In all cases, the BCRs decrease but still remain between 1.8 and 2.0, continuing to indicate High VfM or, at worst, Medium VfM.

TAG Unit A1.2 contains advice on how the deal with cost uncertainty and the potential for cost overruns to change the value for money category. Based on the information in Table 3.5, the change required to the PVC in order reduce the value for money category to the next lowest (giving a BCR of below 1.5) is an increase of 34%.

Using the Optimism Bias Workbook shows that there is approximately a 40% chance that costs of the project will overrun sufficiently to lower the value for money category.

Considering an even more pessimistic scenario, there is only a 13% chance that the costs of the project will overrun sufficiently to mean that the BCR would be below 1.0.

Finally, it should be noted that the forecast increase in passenger revenue due to the project exceeds the assumed increase in operating and maintenance costs, meaning that the project creates a positive financial return for the rail industry. Operating costs would need to increase by 7% for this not to be the case, although the estimated increase in operating and maintenance costs has been provided by the relevant partners and so is considered robust in the core scenario.

3.10 Appraisal Summary Table

The Appraisal Summary Table (AST) presents all the evidence from the economic assessment in a single table. It records all the impacts which have been assessed and described above using monetised, quantitative or qualitative information as appropriate. The latest AST for the preferred option is included at Appendix G.

4 The Financial Dimension

This chapter of the OBC provides information on the affordability of the project and its funding arrangement, setting out the most recent cost estimates and corresponding spend profile.

4.1 Project Costs

4.1.1 Capital Costs

An updated cost estimate has been produced for the various elements of the project, as set out in the cost plan included at Appendix H. The updated cost estimate is £49,350,000 (2023 prices) as, broken down as shown in Table 4.1.

Table 4.1. Summary of Costs for Preferred Option

Project Element	Cost Estimate
New Western MSCP	£11,455,000
New Western Station Entrance	£5,576,000
Western Access and Surface Car Parking	£7,119,000
Existing Eastern Station Works	£11,943,000
Eastern Station Square and Interchange	£6,884,000
Station to City Connectivity Enhancements	£4,481,000
Project Management	£1,892,000
TOTAL	**£49,350,000**

Details on the assumptions used in compiling the latest cost estimate are included in the cost plan. In particular, the cost plan includes a description of the approach taken to key uncertainties, such as risk and inflation, when developing the latest cost estimate. The approach taken to account for financial risks varies across the different elements of the project.

The contingency included for the new junction on Thorpe Road and for the Station to City Link follows the allowance used in the PSQ Masterplan Feasibility Estimate Rev 3 (February 2020) on which the LUF bid was based. This allows 15% on all construction costs before inflation for design development/client instructed change and unforeseen events/unquantifiable knowns which client the client is responsible for under the

construction contract and an additional 1% for sundries which may arise from planning conditions/sectional agreements. Contractor's construction risk is included in the 10% contractor's overheads and profit allowance.

For the station building works, a higher level of contingency was assumed due to the complexity of their phasing and working adjacent live railway lines. 20% design risk contingency is included for both station buildings and 5% and 7.5% for sundry risk for the west and east station buildings respectively to cover night working and the fees associated with obtaining permits to work on Network Rail land. The eastern station building works include a higher sundry risk as it is envisaged more night working will be required to keep the existing station operational.

The new MSCP and station square packages include a lower percentage of risk (8% design risk and 1% sundry) as the nature of these works is simpler and less risky, either being subcontracted out to a single specialist or comprising more traditional public realm civil engineering works.

The cost plan will be updated at the completion of the next stage of development work and the process for the draw down of any contingencies is to be agreed with all stakeholders and the parameters clearly defined.

4.1.2 Operating and Maintenance Costs

Although there is minimal new rail infrastructure proposed through the project at Peterborough Station, there are some additional operating and maintenance costs that would be required for the new western entrance and MSCP that Network Rail would need to accept as the landowner and that LNER would incur as SFO.

It is anticipated that costs of maintaining any new rail assets will be incorporated in Network Rail's settlement for the next Control Period. The operational costs for the new station facility (staffing and day to day running) will form part of the Station Change proposal and will be addressed through the regulated regime.

At this time, however, it is assumed that the costs of operating and maintaining the proposed new and improved rail assets are £500,000 per annum, based on information provided by LNER drawing on similar costs either planned or actually incurred as a result of other station improvements on the ECML.

Whilst running costs for the station as a whole may increase due to the provision of a larger station footprint, these may be partially offset in the future by greater revenue generating opportunities (retail, food and beverage and advertising income). The newer station may also be more cost effective to run compared to the existing station, for example, the design will incorporate consideration of energy saving opportunities to reduce utility costs, such as rainwater harvesting.

PCC will absorb the maintenance costs of the new transport infrastructure that it provides, utilising its existing highway maintenance budgets. The new transport infrastructure provided as part of the project will become highway assets, and the ongoing maintenance of these highway assets will follow the strategy outlined in PCC's Highway Asset Management Plan.

4.2 Spend Profile

Table 4.2 shows the updated cost estimate for the preferred option, split over time between the start of the OBC development and the projected opening year.

Table 4.2: Breakdown of Outturn Project Costs

Year	Anticipated Spend
2023/24	£1,240,000
2024/25	£17,708,000
2025/26	£28,061,000
2026/27	£2,341,000
TOTAL	**£49,350,000**

4.3 Budgets/Funding Cover

As part of the development of the PSQ programme, a review was undertaken of the potential funding sources for the project. From this review, the Government's LUF allocation was identified the prime focus for funding the main elements of the project, and a subsequent bid for Round 2 of LUF was developed, for a total contribution of £47.85 million. This funding bid was announced as successful in January 2023, hence LUF remains the primary funding source for the project, subject to a satisfactory business case being presented and accepted.

CPCA is the accountable body for the LUF allocation, but this funding is passed directly to PCC by agreement. The letter confirming the LUF allocation to CPCA confirms that CPCA (and therefore PCC) will be responsible for any cost overruns or additional expenditure required for the successful delivery of the project. It is expected that, on acceptance of this OBC, DfT would normally fix its contribution at that time, subject to extraordinary circumstances and a revised value for money assessment.

Beyond OBC, PCC would accept responsibility for any cost overruns over and above the LUF contribution of £47.85 million. For the elements of the project that are to be led

by other partners (Network Rail and LNER), PCC will seek to agree a mechanism to port the responsibility to the lead partner and/or retain a level of contingency for that element of the project to cover their liability under the funding agreement with DfT.

In addition to the LUF contribution, PCC is contributing £1.5 million from its Towns Fund allocation to the project. Peterborough was allocated £22.9 million from the Towns Fund in 2021 following the submission of their Town Investment Plan, which proposed a range of projects within the City centre, including £1.5 earmarked to enhance connectivity to Peterborough Station.

PCC manages this programme on behalf of DLUHC and the amount identified for the project is capped at that level unless formal agreement to an increase is received from the Towns Fund Board, which has responsibility for the governance of that programme.

All of this planned expenditure is included in the public sector balance sheet given the funding bodies involved and the project partners.

The current anticipated cost for the relocation of the MDU is around £15 million, and this will act as a complementary investment to the project, with Network Rail responsible for the cost of the move.

CPCA and PCC secured just under £3 million in May 2023 through Active Travel Fund Round 4, centred on plans for four projects around the City. Some £300,000 was earmarked for improved cycling infrastructure and junction upgrades along Thorpe Road between Thorpe Meadows and Midland Road, linking in with the proposed new western station entrance junction on Thorpe Road, providing further complementary investment to the LUF contribution.

The breakdown of funding contributions to the project itself and complementary investment over the same time period by funding source is shown in Table 4.3.

Table 4.3: Breakdown of Funding Contributions

Funding Source	Funding Contribution
LUF Round 2	£47,850,000
Towns Fund Programme (PCC)	£1,500,000
Network Rail	£15,000,000
Active Travel Fund Round 4 (CPCA/PCC)	£300,000
TOTAL	**£64,650,000**

5 The Commercial Dimension

This chapter of the OBC provides evidence on the commercial viability of the project, and the procurement strategy which will be used to engage the market. It provides the intended approach to risk allocation and transfer, contract and implementation timescales, as well as how the capability and technical expertise of the team delivering the project will be secured.

5.1 Commercial Viability

All the elements of the Peterborough Station Improvements scheme are considered to be commercially viable as both capital and operating and maintenance costs have been considered in the Economic and Financial Dimensions.

The project predominantly comprises new or upgraded transport infrastructure that will be operated and maintained by Network Rail, the Station Facility Operator (SFO) – LNER - and the Highway Authority - PCC. There are no other ongoing costs that will affect the commercial viability of the project.

Network Rail as rail system owner and operator would adopt all the works within their land ownership as part of their existing freehold.

Under its Full Repairing and Insuring lease with Network Rail as landlord, LNER is responsible for operation and maintenance of Peterborough Station for a period of 99 years. It is party to various existing contracts to execute these obligations. The new station entrance to the west, along with the extension/improvements to the existing station building, would be added to this portfolio.

There will be new revenue generating opportunities provided by the additional circulation space with the new station building to the west and the extension/improvements to the existing station building, as well as the creation of the station square to the east. LNER will consider what these opportunities may entail in the next stage of development work as more detail is provided on the total space available and what this could mean for additional food and beverage facilities across the station.

The amended parking arrangements will be aligned with the existing operating models and commercial arrangements, rather than setting up separate provision. LNER operates and maintains the existing car park facilities at Peterborough under its lease with Network Rail as landlord and franchise agreement with DfT for the ECML. It is anticipated that the new parking areas should function on similar terms, given that the total number of spaces available will remain the same, providing for a single customer experience across all parts of the station.

No specific market engagement has yet taken place on the preferred option. However, given the nature of the works involved, it is expected that there will be a high demand and strong competition amongst engineering contractors to secure the contract for this project given previous experience of such schemes delivered previously on the ECML and in Network Rail's Eastern Region.

The nature of some elements of the project means that the construction and engineering resources which could deliver it would not necessarily be constrained to major Tier 1 railway contractors or specialist resource, providing opportunities for locally-based SMEs within the supply chain.

5.2 Output-based Specification

The minimum anticipated outputs of the project are described in the Strategic and Economic Dimensions and are summarised below:

- Provision of a new station entrance/building on the west side of the rail line;
- The new western station entrance to be complemented by cycle parking, pick-up/drop-off facilities, accessible car parking and new areas of public realm;
- Provision of access for all modes to the new western station entrance including junction improvements on Thorpe Road;
- New rail station user parking on the western side comprising of a MSCP and a small area of additional surface car parking;
- A refurbished eastern station building with more customer circulation space and a relocated entrance;
- A new station square on the east with additional cycle parking, servicing provision, revised pick-up/drop-off facilities, accessible car parking and an enhanced area of public realm (North of Crescent Bridge); and
- A high quality and accessible route to the City centre for active modes.

These outputs are illustrated in Figure 5.1.

Complementary outputs include the relocation of the Network Rail MDU to the Mayor's Walk car park and the provision of new active travel facilities along Thorpe Road.

1. Western Station Entrance
2. Western Access
3. Multi-Storey Car Park
4. Surface Car Parking
5. Surface Car Parking (existing)
6. Accessible Parking (5%)
7. City Link (Queensgate Roundabout)
8. Station Square
9. Taxi / Pick-up & Drop Off
10. Cycle Parking
11. Meanwhile Use
12. Refurbished Eastern Station Entrance

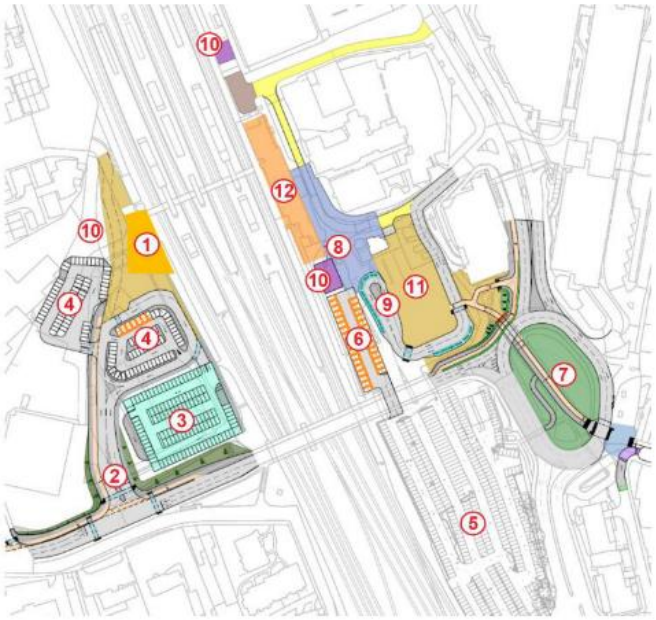

Figure 5.1: Anticipated Project Outputs

It is expected that the operational rail elements of the project will align with Network Rail's Project Acceleration in a Controlled Environment (PACE) process. PACE describes how Network Rail manages and controls investment projects on the rail network. The approach has been developed to minimise and mitigate the reputational and financial risks associated with project development and delivery and is based on best practice within comparable industries that undertake major investment projects. Use of the PACE process also provides a flexible control framework enabling Sponsors and Project Managers to tailor the controls to better meet the requirements of the project.

Delivering the project will entail either a standard Network Rail Asset Protection Agreement or a Development Services and Implementation Agreement, which are common agreements put in place when works to the rail network are led by third parties. Indicative requirements at this stage are that agreements would be required for the location or protection of lineside cabling systems and standard asset protection protocols for provision of new or extended station buildings on each side of the rail line.

There will also need to be a Terrorism & Hostile Vehicle Risk Assessment of the project, based on the station category.

Development or changes to Network Rail's property requires a number of approvals from Network Rail and LNER as SFO, usually Network Change and/or Station Change. The project may also need approval from the Office of Rail and Road (ORR) and the TOCs who have contractual and regulatory arrangements with Network Rail.

The design work on the operational rail elements will need to be developed in line with relevant railway standards such as:

- Railway Group Standards;
- Technical Specifications for Interoperability;
- Network Rail company standards;
- Accessibility standards (Equality Act);
- Appropriate accreditations for car parking (Park Mark and Secure Stations); and
- ORR and Health and Safety Executive guidance.

Design work on the highways and active travel elements will need to be in accord with the relevant DfT highways, junction and active mode design standards. The public realm enhancements should aim to match the materials used elsewhere in the City centre in order to provide further visual links to and from the station.

In taking forward the overall project, the following actions are required:

- Achieve cost certainty;
- Minimise preparation costs in regard to design;
- Minimise construction delivery costs;
- Achieve an efficient delivery programme;
- Achieve an appropriate quality of design;
- Incentivise innovation;
- Maintain project knowledge;
- Obtain contractor input to risk management and assessment;
- Obtain planning permission and all necessary consents; and
- Engage with contractors and stakeholders throughout planning to delivery.

5.3 Procurement Strategy and Sourcing Options

Up to completion and acceptance of this OBC, PCC has taken the lead in procuring the necessary development work using established procurement routes, including existing framework arrangements.

In order to maintain momentum and with a mind to the March 2026 deadline for the LUF contribution, it has been agreed that PCC will continue to lead the next stage of development work for the whole project, seeking to confirm an extension to existing contract arrangements and bringing in specialist skills as necessary. This will include preparation of the Full Business Case (FBC).

This will be undertaken in close partnership with both Network Rail and LNER, as at present, mindful that these partners will be responsible for approval and adoption of a number of elements of the project.

In developing the OBC, PCC, CPCA, Network Rail and LNER have considered whether separate delivery routes and contracts for each element of the project (or a combination of the elements) would secure better value for money, allow a phased approach to delivery, and minimise risk.

This was undertaken through a workshop held in November 2023 and the resulting Delivery Strategy is included at Appendix H. The agreed delivery and procurement strategy identifies the best way of achieving the objectives of the project and value for money, taking account of the risks and constraints.

The agreed approach gives rise to five recommended delivery contracts, as illustrated in Figure 5.2 and described in the following paragraphs.

In addition to these contracts, Network Rail will continue with the procurement of the works required for the relocation of the MDU and CPCA/PCC will lead the delivery of the complementary active travel improvements along Thorpe Road.

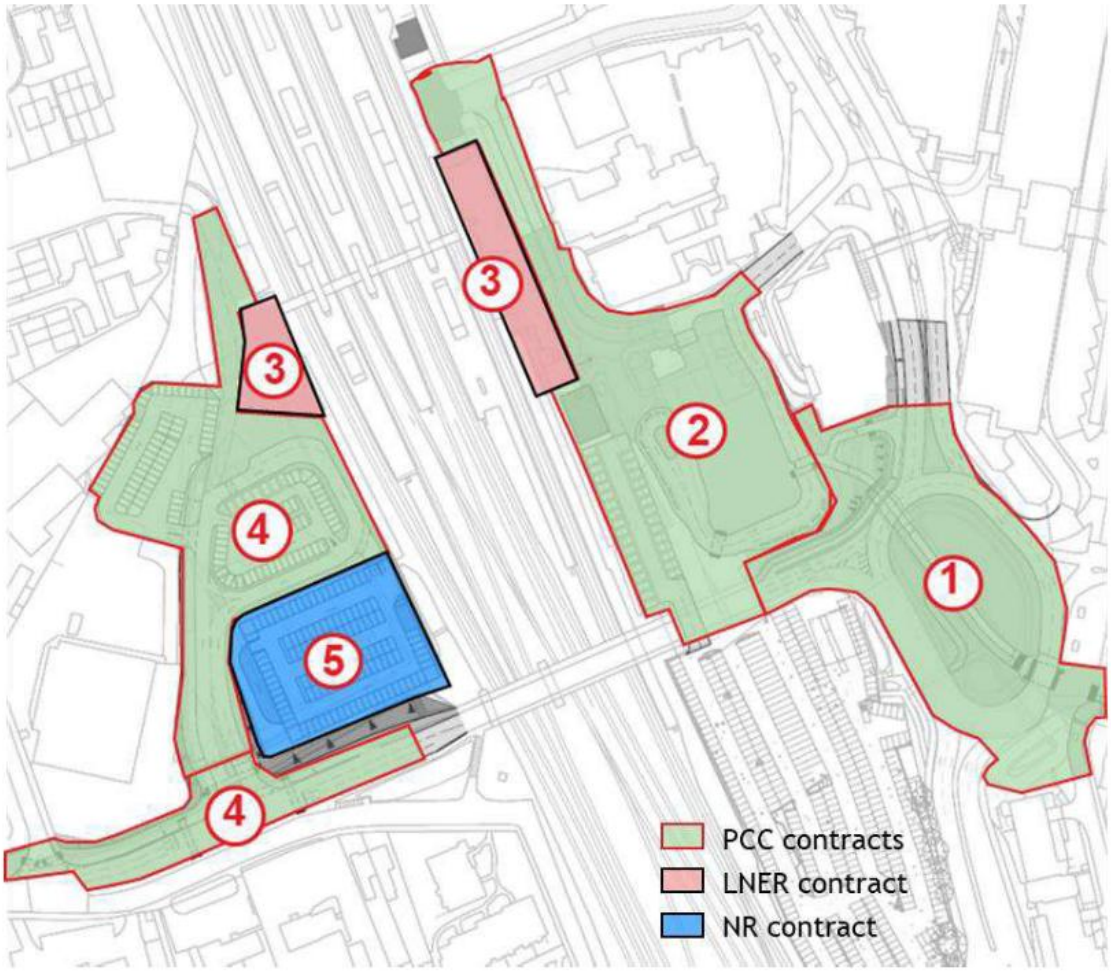

Figure 5.2: Proposed Delivery Contracts and Lead Organisations

5.3.1 Contracts 1, 2 and 4

Led by PCC, delivery and supervision of the highways and active travel and public realm/station "floormat" elements will be delivered in house by Peterborough Highway Services (PHS), building upon the design work that will have been completed in the next stage of development work, in close partnership with LNER and Network Rail.

PHS is a ten-year (with two, five-year possible extensions) NEC3 Term Service Contract between PCC and Milestone Infrastructure, with responsibility for improving and maintaining Peterborough's highway network. The contract is built upon a collaborative and multi-disciplined team capable of developing schemes from policy concept right through to design and construction, and then maintaining them.

Procuring the project directly through the PHS contract enables PCC to appoint a contractor to construct these elements (Milestone Infrastructure) in an efficient manner. Using PHS' in-house delivery capability offers advantages over alternative procurement routes:

- PHS is reliable and has a proven track record of delivering major schemes successfully;
- Schemes can be procured far quicker than alternative procurement routes, which reduces procurement costs;
- The integrated delivery model creates a single point of responsibility and encourages more effective collaboration between client, designer and contractor to reduce costs and minimise maintenance;
- A well-established supply chain is already in place which provides value for money;
- Strong performance is highly incentivised as all schemes delivered within the PHS contract contribute to a suite of KPIs which impacts on the term of the contract; and
- The contract duration and strong collaborative relationship encourages both parties to work towards long term gain rather than short term commercial gain.

When using this approach, however, price comparisons cannot be made at a project level - all work packages will be competitively tendered to sub-contractors, ensuring value for money and allowing for price comparisons to be made at a package level.

It is also the case that different approaches to delivery and risk are not available - the delivery and risk models are fixed by the contract, meaning that there is no scope to vary these within the context of the PHS contract. However, these models have been used successfully on previous schemes delivered by PHS and all involved are familiar and comfortable operating with them, making delivery more efficient.

Different contracts may be considered for the west side and the east side of the rail line, given that the delivery of the improvements to the west are reliant on the relocation of the MDU. However, the new junction on Thorpe Road could proceed in isolation early in the delivery programme as this is not reliant on the MDU relocation, can tie-in to the existing access arrangements to the west side of the rail line and can be delivered alongside the complementary active travel improvements along Thorpe Road.

5.3.2 Contract 3

LNER or Network Rail are considered best placed to lead the design and construction of the rail station elements, with the procurement strategy being driven by the output specification, key objectives and appraisal of the design and associated risks.

Network Rail or LNER Commercial and Procurement teams will support and identify the most effective route to market for project delivery following completion of the OBC. However, given the LUF contribution deadline and experience of similar projects, a design and build option, particularly for the new western station entrance, is likely to be the most appropriate.

Delivery of the improvements to the eastern station building will need to account for ongoing operation of the station itself and so will need to be planned considerately.

5.3.3 Contract 5

Consideration of the preferred procurement strategy for the new MSCP has included taking account of the suggested funding contributions, a developed market for any proposed procurement approach and a mechanism to incentivise performance, efficiency and innovation.

In essence, there are two principal options:

- Traditional design and construction; and
- Design and build.

The former option offers the greatest degree of flexibility to switch procurement strategy and timeframe later, if required.

The latter option potentially offers the shortest development phase duration (and the lowest development phase cost) and thereby provides the best fit with the funding timescale constraints, as well as providing greater cost certainty at the time when any funding is committed.

The latter option also provides the opportunity for contractor involvement during the development phase, which should aid cost certainty and reduce risks at an earlier stage. This option is also the one that has been used most recently by Network Rail for similar schemes, for example, at Stevenage station.

On this basis, the Steering Group considers at this point that the preferred procurement method for the new MSCP would be a design and build contract, led by

Network Rail, given their recent experience with similar car parks at nearby stations and along the ECML.

5.4 Payment and Charging Mechanisms

The payment mechanism for the highways and active travel and public realm/station "floormat" delivery packages will be negotiated with the contractor based on the final shape of the individual contract. As previously stated, procuring the project directly through the PHS contract enables PCC to appoint a contractor to construct the project in an efficient manner.

All subcontract packages will be competitively tendered to ensure best value and will be put to a minimum of three tenderers where possible.

At this time, it is envisaged that either LNER or Network Rail will lead on the detailed design and construction contracts for the other work packages and that the successful contactor will be paid through standard mechanisms as with other similar schemes within the RNEP.

5.5 Risk Allocation and Transfer

A more detailed account of the approach to risk management for the project is included in the Management Dimension. However, at this stage of development and prior to the letting of any of the construction contracts, the project cost estimate contains a greater proportion of risk borne by PCC, Network Rail and LNER than will remain after the appointment of the successful contractors.

Some of the risk is captured and quantified within the risk allowance outlined in the Financial Dimension. Once the tendering process for the various construction contracts is complete, some of the risk (such as cost increases associated with the detailed design and construction) can be transferred to the successful contractors. However, the risk of costs being higher than currently predicted remains until this tendering process is complete, although this risk is reflected in the various allowances included within the cost estimate included in the Financial Dimension.

Other risks that may be transferred to the successful contractor at the appropriate time include those that encompass appropriate planning conditions, estimations of the quantities, mitigation measures and resources. PCC, Network Rail and LNER will continue to take responsibility for risks that encompass land, residual planning and environmental permission in the next stage of development work, as well as the following specific risks:

- The need for changes to the project;

- Inaccuracies or incompleteness of any of the data or information related to the project;
- Pre-contract advance works which might result in delivery and programme delays to the contractor;
- Pre-contract arrangements with others/third parties; and
- Change in the law.

Other risks, such as the identification of statutory undertakers' equipment, and mitigation costs associated with these, can be removed from the risk allowance element of the project costs completely if they do not materialise, or transferred to "actual" costs if they do materialise, rather than remaining within the risk allocation.

5.6 Contract Length and Management

As set out in the Management Dimension, the current programme envisages completion of the elements included within the LUF funded element of the project to be completed by March 2026. Contract lengths will be different across the different delivery packages, but a start on site is anticipated no later than January 2025.

PCC's project governance and management arrangements post-contract award will evolve from the governance arrangements put in place to develop the FBC through to contract award.

Network Rail's supply chain is divided into Route Services (goods and services) and capital delivery projects (delivery of major projects). Network Rail has developed a standard suite of contracts that it believes reflect a sensible allocation of risk and responsibility between the different parties and that these contracts will save management time for Network Rail and their suppliers and contractors when setting up and managing contracts.

5.7 Human Resource Issues

No significant human resources issues have been identified that could affect the deliverability of the project, although it is recognised that it will have a considerable human resources requirement, across PCC, CPCA, Network Rail, LNER, the design teams and the contractor teams.

At this time, sufficient resources have been identified to deliver the project, however the resource requirement will be kept under review by the Steering Group and, if necessary, additional resources brought in.

6 The Management Dimension

This chapter of the OBC describes how the project will be managed and delivered, with a clear understanding of what needs to be done, why, when and how, with measures in place to manage any risks. It includes a plan to ensure that the benefits set out in the Strategic and Economic Dimensions are realised.

6.1 Evidence of Similar Projects

The key deliverables of the Peterborough Station Improvements project, as a minimum, are summarised below:

- Provision of a new station entrance on the west side of the rail line, with new areas of public realm, cycle parking, pick-up/drop-off facilities, accessible car parking and a new MSCP, accessed by all modes from a new signalised junction on Thorpe Road;

- A refurbished eastern station building with more customer circulation space and a relocated entrance, fronting onto a new station square with additional cycle parking, servicing provision, revised pick-up/drop-off and taxi facilities, accessible car parking and an enhanced area of public realm; and

- A high quality and accessible route to the City centre for active modes.

These are shown on Drawing Number PSQ-ARU-ZZ-ZZ-DR-C-00015, provided separately.

All of the partners have significant experience in delivering projects of a similar nature to the project, particularly in leading and delivering the individual delivery packages identified in the Commercial Dimension.

Overall, CPCA is the lead authority and accountable body for the LUF contribution. As a funder of projects, CPCA has been heavily involved in enabling a range of local rail projects that include reinstating Soham rail station that closed in 1965, improvement of Fenland services, rail connectivity Wisbech to Cambridge, capacity improvements through Ely and a new station at Cambridge South serving the biomedical campus and local community.

The new station at Soham opened in 2021 ahead of schedule and under budget. CPCA and Network Rail accelerated the programme by overlapping stages in the project process, completing some requirements at the same time instead of one after the other. A number of lessons have been learned from implementing this local scheme - these will influence how this project is taken forward.

6.1.1 Highways and Active Travel

PCC has a strong track record in the procurement and delivery of similar highway and active travel measures through the existing PHS arrangements described in the Commercial Dimension.

PHS has successfully developed and delivered multiple highway schemes, totalling more than £20 million annually, including several CPCA schemes. All skills and competencies to deliver this project are available within the local PHS contract. For example, a recently PHS delivered scheme was the Junction 20 Improvement Scheme (A47 Soke Parkway/A15 Paston Parkway), completed in 2017 at a cost of £5.7 million.

6.1.2 Rail Station

Network Rail has collective experience in delivering a diverse range of high-profile rail projects, and have a strong track record in the procurement and delivery of major track and station improvements on the ECML in recent years including:

- Darlington new eastern station entrance, footbridge, MSCP and platforms - £130 million (currently on site, due for completion in 2024);
- Werrington grade separation - £200 million (completed in 2021);
- Leeds station improvements - £160 million (completed in 2021);
- King's Cross remodelling - £260 million (completed in 2021 with LNER as a station beneficiary);
- Wakefield Westgate new station building and footbridge - £8.8 million (completed in 2014 in collaboration with ECMLCo as predecessor to LNER); and
- Newcastle Station Gateway – Grade I listed station redevelopment, including new retail opportunities and enhanced public realm/pick-up/drop-off facilities - £12 million (completed in 2014 in collaboration with ECMLCo as predecessor to LNER);

There is therefore clear evidence of the delivery of similar projects by Network Rail (also working in collaboration with the SFO) and that specific elements of this project would sit well as packages delivered by the rail industry.

6.1.3 Multi-Storey Car Park

Network Rail also has recent experience of delivering new MSCPs at rail stations along the ECML.

In addition to new MSCPs delivered in the Darlington and Wakefield Westgate schemes listed above, a new 622-space MSCP has recently been opened at Stevenage station for £9.8 million. As part of the York Central scheme, a new 636-space MSCP is being delivered, with a budget of £13 million.

6.1.4 Public Realm/Station "Floormat"

Again, there are numerous examples of similar projects where station frontages have been improved along the ECML, including the Newcastle and Wakefield Westgate examples listed above. The Darlington and York Central schemes both include significant provision of public realm and associated rail station facilities in front of existing station buildings and new station entrances.

There is also work underway at Leeds station to deliver the £46.1 million Leeds Station Sustainable Travel Gateway scheme, that will see the following improvements delivered:

- Pedestrianisation of New Station Street, with outdoor seating and rest areas, and landscaping;
- Relocating the existing taxi rank to Bishopgate Street where there will be a large and well-lit shelter and room for six vehicles, also allowing for kerb-side boarding which will help people with wheelchairs or assistance dogs to board more easily;
- Two 21-passenger lifts from Bishopgate Street to the station entrance on New Station Street, providing step-free access between the two streets;
- A high quality cycle hub at the station, which will include electric charging points and storage for all types of cycle;
- Environmental improvements to Neville Street and Dark Neville Street including enhanced lighting, road surface and pavement and elevation treatments; and
- Installing high quality cycle infrastructure on Bishopgate Street and Neville Street, and improvements to cycling infrastructure in surrounding communities.

This project is a collaboration between the local highway authority, the West Yorkshire Combined Authority and Network Rail as the landowner, indicating that such

an approach to delivery as advocated for this project has been used successfully elsewhere on the ECML.

PHS has also delivered the following public realm schemes in recent years in Peterborough, demonstrating their local experience and competence:

- Westgate Public Realm (2018) - £963,000;
- Long Causeway Public Realm (2014) - £2 million;
- Lower Bridge Street Public Ream (2017) - £2.6 million (as part of a £10.5 million scheme).

6.2 Project Dependencies and Constraints

The Strategic Dimension identified a number of other transport and non-transport interventions with a relationship to the preferred option for the project.

As identified in the Financial Dimension, there is a constraint on the LUF contribution in that, at this time, this funding needs to be spent by March 2026. The complementary Towns Fund contribution has a similar time constraint. This situation has influenced the agreed procurement and delivery strategy set out in the Commercial Dimension and will continue to be a significant driver of project delivery.

The most critical part of the current delivery strategy is the timely relocation of the Network Rail MDU as this will impact on the availability of land for some elements of the project, as well as the wider aspects the PSQ programme.

Network Rail's current Business Plan identifies the relocation happening early in Control Period 7, but there is the potential for a temporary relocation of Network Rail staff and contractors in Summer 2024 to ensure that this process does not delay the delivery of the project.

The new western station entrance and the new junction on Thorpe Road can both be delivered in advance of the MDU relocation, allowing construction traffic to access the site required for the new station entrance and, if needed, allowing access to the new entrance once open in the short term.

The latest Network Rail Delivery Plan for the Eastern Region does not include any specific future interventions planned on this section of the network that relate to the project. However, any opportunity for synergies between future work packages and the works required for this project should be examined as development work

progresses, particularly where there is any requirement to change power and/or signalling equipment in the Peterborough area.

The requirement for an Environmental Statement to accompany the suggested planning process still needs to be confirmed. Screening activity to establish whether an Environmental Impact Assessment will be needed is planned as part of the work confirming the approach to securing any necessary planning approvals.

6.3 Governance, Organisation Structure and Roles

6.3.1 Key Individuals

The appropriate structures and processes are in place to support effective decision making with strong and effective shared leadership embedded within the development and delivery process.

Most recently, PCC has led the recent development of the project in partnership with CPCA as the lead for the LUF contribution, and PCC will continue to provide the lead through to the completion of the FBC, subject to funding availability.

Key individuals involved include:

- **Senior Responsible Owner (SRO)** – the SRO has overall accountability for the delivery of the project ensuring the project remains focused on achieving its objectives. They have the authority to make decisions concerning the delivery of the project within a certain delegation. The SRO is Tim Bellamy from CPCA given that CPCA will be the recipient of any LUF contribution and pass on funds via a grant funding agreement to PCC.

- **Project Director** – the Project Director leads and manages the project team with the authority and responsibility to run the project on a day-to-day basis. The Project Director is Nick Carter, Service Director for Growth and Regeneration at PCC, who reports directly to the Executive Director for Place & Economy in PCC's Corporate Leadership Team.

To take forward the delivery packages of the project being led by them, Network Rail has allocated an experienced Project Sponsor to act as the "guiding mind", defining the work required and checking that the detailed outcome is aligned with the requirement set for them by PCC/CPCA.

At present, the Project Sponsor is Alison Howard, although it is possible that, as the project progresses through the PACE milestones and the different stages of Network

Rail's Investment Decision Framework, the Project Sponsor will change so that they have the appropriate skills and experience for the project development stage.

LNER's lead at this time is Carl Howarth, Principal Estates Manager, along with Luke Owen, Property Development Manager.

6.3.2 Steering Group

Since the outset of the work to develop the Strategic Outline Case and the LUF bid, a Peterborough Station Steering Group has been in operation to manage development of the project. The Group currently meets monthly and comprises senior level representation from the following:

- PCC;
- CPCA;
- Network Rail; and
- LNER.

The Steering Group, via the SRO and/or the Project Director, reports progress against milestones, as required, to:

- CPCA and PCC Leadership Teams;
- CPCA Transport and Infrastructure Committee;
- PCC Cabinet/Executive Groups;
- PCC Towns Fund Board; and
- PCC Growth and Regeneration Programme Board.

The Steering Group receives progress and project exception reports from, and gives direction to, the Project Manager appointed by PCC to oversee the production of the OBC. The Project Manager is currently an externally appointed consultant, accountable to PCC's Head of Regeneration.

The Steering Group ensures the timely set up and key deliverables from the technical support teams involved with the project, directing the commissioning of the technical work necessary. The Group has the authority to commission further technical work as necessary and will liaise with stakeholders about the progress in relation to their

interests, and also provides overview of the risk register and ensures effective communications are implemented.

The responsibilities of the Steering Group in the immediate future include:

- Strategic direction;
- Business case preparation;
- Stakeholder engagement and communications; and
- Co-ordination across the different elements of the project, but also with other interventions across the City centre.

Following completion of the OBC, it is suggested that the Steering Group continue, but with the addition of an overall Delivery Group and a series of working groups, aligned to the delivery packages set out in the Commercial Dimension (as well as the relocation of the MDU) and the preferred procurement strategy. This is illustrated in Figure 6.1.

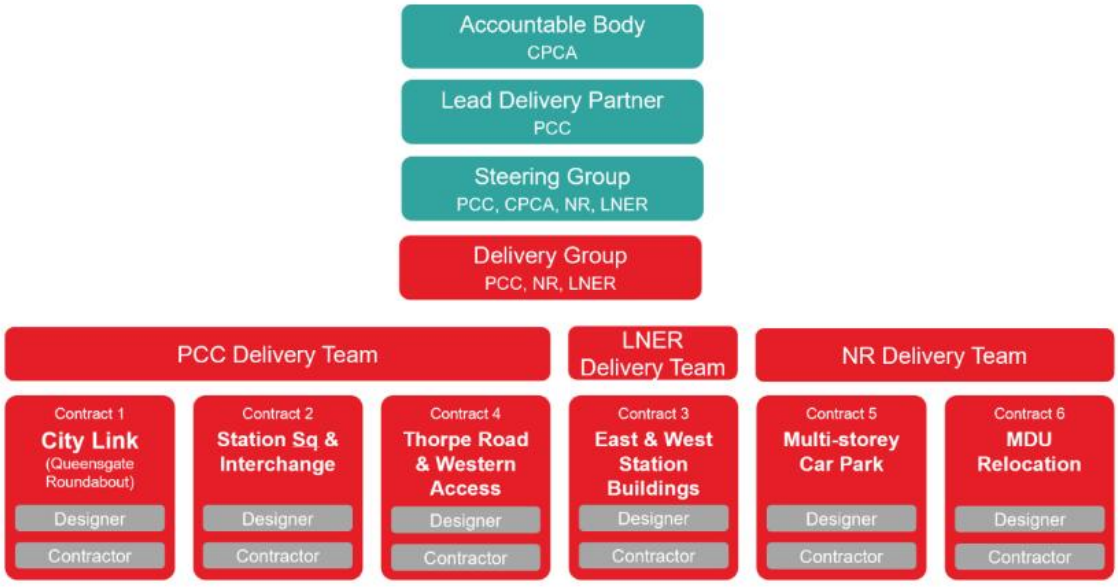

Figure 6.1: Proposed Future Governance Structure

These future governance arrangements will be discharged as shown in the 'Responsible, Accountable, Consulted and Informed' (RACI) chart in Table 6.1, which is a matrix of all the activities or decision-making authorities undertaken in an organisation set against all the people or roles.

Table 6.1: RACI Chart

Tasks	DLUHC/DfT (Funder)	CPCA (Project Sponsor /Grant Recipient)	PCC (Project Lead)	Steering Group	Highways and Active Travel Working Group (PCC)	Rail Station Working Group (NR)	Multi-Storey Car Park Working Group (NR)	Public Realm /Station "Floormats" Working Group (PCC/NR)
Provide grant funding	A/R	C	C/I	C/I	I	I	I	I
Progress funding/service agreements		A	A/R	C	I	I	I	I
Develop business cases	C	A	A/R	R	C	C	C	C
Progress required planning approvals	I	I	I	A	C	C	C	C
Progress necessary legal agreements	I	I	I	A	C	C	C	C
Highway/Active Travel design	I	I	I	A	R	C	C	C
Rail Station design	I	I	I	A	C	R	C	C
MSCP design	I	I	I	A	C	C	R	C
Public Realm /Station "Floormats" design	I	I	I	A	C	C	C	R

Tasks	DLUHC/DfT (Funder)	CPCA (Project Sponsor /Grant Recipient)	PCC (Project Lead)	Steering Group	Highways and Active Travel Working Group (PCC)	Rail Station Working Group (NR)	Multi-Storey Car Park Working Group (NR)	Public Realm /Station "Floormats" Working Group (PCC/NR)
Develop, manage and monitor overarching programme management documentation	I	A	A/R	R	C	C	C	C
Ensure alignment of workstreams and common activities between partners	I	I	A	R	C	C	C	C
Oversee delivery of the agreed programme	I	A	A/R	R	C	C	C	C
Provide an interface with other relevant projects	I	I	I	R	C	C	C	C

Note: R = Responsible, A = Accountable, C = Consulted, I = Informed

Details of what decisions individual delivery teams are empowered to make, what decisions are required to be escalated to the Delivery Group/Steering Group and how this escalation process works will be agreed through the terms of reference that will be developed for these teams by the Steering Group. Delivering the project to the planned programme to meet funding constraints will need early aligned sequencing between delivery packages.

The Steering Group will be responsible for any gateway reviews of the ahead of formal review by DfT/DLUHC as potential funders of the project. It will also oversee the outcomes of the Network Rail PACE delivery milestones.

A Head of Terms Agreement has been drafted and substantially agreed between the partners to govern the relationship between the partners who have a financial interest in the project. The agreement states that the parties agree that delivering an enhanced station is crucial to the success criteria of the PSQ programme to create an attractive city gateway, transform the visitor and passenger experience, accommodate future rail demand and provide for city-wide economic growth.

Some of the key items included within the Head of Terms Agreement are as follows:

- The parties will work together to achieve the strategic objectives, deliver the Peterborough Station Improvements scheme and enable the redevelopment of the sites that form the PSQ programme.

- The parties aim to agree marketable opportunities and the appropriate disposal strategy when appropriate to attract end users in accordance with planning policy to achieve the strategic objectives.

- The parties will work together to support if reasonably practicable any future land assembly of any part of the PSQ programme currently in third party ownership to deliver the strategic objectives.

- The parties will work together to seek funding (which will be subject to viability, regulatory approvals and licence condition restrictions) for work packages and attract gap funding where necessary to make a scheme viable.

- The parties will not unilaterally (unless required for operational or safety reasons in Network Rail's case) create any material legal encumbrance that will affect the PSQ programme without the consent of the other parties such consent not to be unreasonably withheld.

- The parties will aim to agree a revised planning framework (masterplan) to be adopted that will promote the viable redevelopment of the PSQ area and promote improved railway facilities, so long as this will not adversely prejudice the existing railway permissions and permitted development rights.

The agreement has been made available as a separate document for reasons of commercial confidentiality and will be developed further as the project progresses.

Other legal agreements will govern the relationship between rail industry partners, with established rail industry processes to amend these as required to deliver the project, for example, Station Lease and Station Change agreements.

From the point that the project (or at least the relevant delivery packages) enters the Network Rail Investment Decision Framework, the existing ECML Programme Board is considered to be a suitable body for the oversight of the development and delivery of these elements from Network Rail's perspective. The Programme Board is held every eight weeks with a supporting Programme Delivery Group (PDG) every four weeks. Additionally, progress updates will be reported to Route Investment Review Group (RIRG).

6.4 Assurance

Project assurance provides the basic framework of controls that ensure:

- The project is managed and controlled as directed by the project lead;
- Basic standards are being followed; and
- The project is well-managed.

The project assurance controls that have been utilised thus far include:

- Regular reporting;
- Exception reporting and re-authorisation;
- Sign-off of any PACE products as they are produced; and
- Stage gate assessment reviews - evidence-based review that draws on documentation and activities that the project team have already produced.

An Integrated Assurance and Approvals Plan (IAAP) has been developed and the latest version is included at Appendix J.

Network Rail has its own procedures for undertaking the development and construction of new infrastructure projects. These follow the PACE process to provide an effective, consistent and repeatable standard by which to manage projects across the organisation. This minimises variation and ensures delivery to the desired standard, on time and on budget.

For Network Rail delivered projects, it is standard practice to hold a full Stage Gate Review at the end of every PACE stage.

As part of Network Rail's internal assurance processes, there are regular reviews to assess process compliance. This is supplemented by an independent Project Assurance Review (PAR) carried out by Network Rail's national programme management team - these are independent Network Rail assessors who review readiness status for next stage of programme/project. At the appropriate point, it is expected that the relevant delivery packages of the project will be included in Network Rail's National PAR.

Before undertaking any proposed changes to the rail network, Network Rail must follow the Network Change and/or Station Change consultation process. This is a formal process which allows a proposer to seek agreement from all affected parties that the change may go ahead, and to agree what compensation (if any) will be paid to cover the impact of the change for when a development entails changes to a station lease area, physical or operational changes to a station, or changes that affect the content or drafting of Station Access Conditions and Annexes.

This is a procedure governed by the regulated 'station access conditions' for each station. At franchised stations, the conditions are part of the station leases granted by Network Rail, and in the access arrangements between the train operator tenant and other train operators who use the station. Given the nature of this project, the regulatory requirements will also need to be satisfied by making a Station Change Proposal, securing approval of all relevant parties and registering the approved change with the ORR.

Although the high level assurance principles and the necessary approvals will need to follow DfT's, DLUHC's and Network Rail's processes as a minimum, some elements of the project will need to comply with CPCA's and PCC's agreed Assurance Framework, given the likely funding contributions.

For example, an updated Equality Impact Assessment will be prepared, building on the initial assessment conducted for the LUF bid, and the distributional impact appraisal outlined in the Economic Dimension, to meet the requirements of the Public Sector Equality Duty.

6.5 Project Plan

A Project Plan has been developed for this OBC setting out all the key project tasks and their duration, the interdependencies between each of the tasks, and key milestones and gateways. Certain elements of the programme have a built-in tolerance/contingency to account for risks identified within the risk register which could have an impact upon the programme.

The current version of the project plan is included at Appendix K, and includes all significant work activities, significant outputs and key decision points regardless of which organisation is leading the work and the governance milestones envisaged. The current programme envisages completion of the elements included within the Peterborough Station Improvements scheme to be completed by March 2026.

The Steering Group will seek opportunities to expedite the process where possible to meet this date, for example, standard construction timescales have been assumed and future potential innovations/novel construction approaches are not considered that could reduce timescales.

The Steering Group will also look to accelerate individual delivery packages where this is possible (for example, the highways and active travel elements) and discuss with DfT as to whether separate FBCs would be appropriate and feasible to allow this to proceed.

Other key milestones currently envisaged are as follows:

- Single Option Design Development and Completion of OBC – End of 2023;
- Approval of OBC – March 2024;
- Updated Design, Costings and Approval – January to March 2024;
- Consultation – Spring 2024;
- Design Stage for Tender – Spring/Summer 2024;
- Possible Temporary Relocation of Network Rail Facilities – Summer 2024;
- Full Business Case – Autumn 2024; and
- Construction – Late 2024/January 2025 to March 2026.

Some of the dates outlined above overlap to ensure that the programme can be accelerated, completing some requirements at the same time instead of one after the other, in line with Rail Project SPEED (Swift, Pragmatic and Efficient Enhancement Delivery) principles. This approach identified 10 key themes to lower costs and speed up the delivery of rail infrastructure schemes, such as rapidly increasing the use of innovative construction methods and removing complexity from planning processes.

Key to deliver within the LUF timescale of March 2026 is a prompt approval of this OBC to allow detailed design work, consultation and the tendering of the various contracts to proceed in the early part of 2024.

The project plan is a 'live' document and is reviewed and updated regularly to provide an accurate and integrated picture of progress and dependencies for the project. Any changes or risks to achieving key milestone dates are brought to the Steering Group's attention and discussed as part of the monthly meeting cycle. All proposed revisions to the plan are issued to the Steering Group for approval.

An even greater level of detail will be introduced into the project plan during next stage of development work, as more detailed design of the project progresses and as risk quantification and impacts change.

6.6 Carbon Management

At the next stage of development work, and as part of the CPCA assurance process, a detailed and robust carbon management plan, which reports predicted emissions against baseline values, includes credible mitigation of associated risks, and provides sufficient evidence on the project team's overall ability to manage and reduce carbon emissions, will be prepared. This will be interwoven between all stakeholders at all stages in the delivery of the project.

The evidence produced as part of this OBC indicates the project will deliver a likely reduction in carbon emissions and the new infrastructure to be provided will seek to reduce carbon impacts as far as possible. Once more detail is available on the new and refurbished station buildings, estimates of quantified carbon reductions will be provided.

6.7 Stakeholder Engagement and Communications

Effective stakeholder communication and management is vital for the success of a initiative such as the PSQ programme, of which the Peterborough Station Improvements project is a key part. It creates stronger working relationships and increases the understanding of the project, with the overall objective of increasing support for the proposals and buy-in.

The Strategic Dimension set out the key stakeholders and their identified needs to date. Building on this, a Communications and Stakeholder Engagement Plan has been developed for the overall PSQ programme and the latest version is included at Appendix K. The Steering Group is responsible for ensuring this plan is implemented in relation to this project.

The key aims of the plan are as follows:

- Making available to interested parties, information on the need and impact of the project;

- Giving the public and stakeholders an opportunity to express their views on the option(s) under consideration and provide a feedback loop;

- Outlining the sustainable option(s) for consideration and the likely consequences of the project; and

- Providing a programme for future stakeholder engagement and public consultation,

all of which should ensure the consistent and structured delivery of messages to all key stakeholders throughout the lifecycle of the project. This is to ensure that:

- Stakeholders feel informed about the project and how it may impact them;

- Stakeholders feel they have had the opportunity to share their views about the project; and

- Stakeholders are informed of the benefits the project will have on the local area.

The plan is a 'live' document and will be updated at key points during the project lifecycle, with additional information included when applicable, including the timings and considerations for external communications.

There has been a significant history of stakeholder involvement in the development of the project to date.

In 2020, PCC, CPCA, Network Rail and LNER funded a feasibility study for the PSQ Masterplan. This was part of the combined authority's comprehensive spending review in the same financial year, which was communicated to statutory consultees and the wider community.

At the same time, an investors' conference was set up in Peterborough, with the wider purpose of 'selling' key investment sites located in the city – PSQ being the main site. A press release on this was publicised widely, including to the local media, trade publications, the websites of key partners, social media (including LinkedIn with #investor hashtags used). Database of potential investors also used to target those who had previously registered an interest.

A virtual conference was held in October 2020 (due to the COVID-19 social distancing restrictions in place at the time) – this was attended by 90 potential investors, plus businesses in the city and local stakeholders. It included speakers from PCC, Opportunity Peterborough (PCC's economic development and inward investment not-for-profit business), both local MPs and CPCA. News of the conference was circulated afterwards (including slides) to the media, online and social media.

In addition to the partners represented on the Steering Group, specific engagement activities have been undertaken with a number of key stakeholders during the preparation of this OBC. These stakeholders are:

- England's Economic Heartland (the relevant Sub-National Transport Body);
- Train/Freight Operating Companies;
- Active Travel England;
- Peterborough Cycle Forum;
- Disability Access Groups – MPAG, Health Watch, RNIB and Hearing Loss, Disability Forum of Peterborough Council for Voluntary Service;
- CPCA Bus Strategy Lead;
- Peterborough Civic Society;
- Peterborough BID and Local Chamber of Commerce; and
- Sponsoring MP for the LUF allocation.

The overarching feedback that has been received has been supportive of the benefits of the revised Masterplan Framework and the impact that the project will have on wayfinding, accessibility and bus/rail connectivity.

The stakeholders contacted are keen to continue to input into the design of the project and noted points of detail that will be picked up as part of the next stage of development work. These points included the need to retain drop-off locations and the existing bus stop as close to station as possible as well as aligning with other ongoing wayfinding initiatives across the City and the proposed access improvements for the Queensgate Shopping Centre.

Over and above the wider stakeholder group engagement, the design team has also carried out two station-specific sessions with LNER staff to establish critical needs for the whole station redevelopment. These sessions highlighted the need to address passenger flow issues and address wayfinding and accessibility restrictions, aligning with feedback from other stakeholders.

The design team is also progressing engagement with Active Travel England to ensure high quality cycle provision and will be providing key active travel design and data as part of this.

Stakeholder engagement is also a fundamental part of how Network Rail seeks to continuously improve its business performance and its network licence contains a stakeholder engagement duty which, requires, to the greatest extent reasonably practicable, that Network Rail treats its stakeholders in ways appropriate to their reasonable requirements.

The network licence also requires Network Rail to publish information on the principles and procedures to be adopted when dealing with stakeholders to comply with this duty. This requirement has been discharged through the publication of a Stakeholder Relations Code of Practice – an overarching framework that sets rules and expectations of engagement.

Eight key principles are set out, and the minimum requirements that Network Rail expects will be followed, to demonstrate adherence to the code of practice, are also included in the document. However, mindful of the broader aims of devolution, Network Rail recognises that it is more important that those who manage stakeholder relationships at the appropriate local, regional or national level determine how best to apply such principles, in order to treat stakeholders in ways appropriate to their needs. This supports the approach taken with the joint development of a stakeholder management plan for the project.

In addition to the engagement undertaken to date, TOCs and FOCs will be kept informed of general progress via the ECML Programme Board and RIRG and the Station Change procedure described previously will need to be followed, providing TOCs and FOCs with a formal consultation role.

It is the sponsoring party's responsibility to work through any issues raised during the consultation process so there are no outstanding objections. If this means changing the Station Change proposal, this must be formally advised to all consultees, who must be given adequate opportunity to consider the revision and provide any comments, rejections or acceptances.

Issues specific to their operations will be discussed directly with the relevant operator on an ad hoc basis as required during the next stage of development work.

6.8 Project Reporting

To date, the progress of the project and in particular the progress of the current deliverables has been reported by PCC, CPCA, Network Rail, LNER and the consultant(s) involved to the Project Director and thereafter the Steering Group, on a monthly basis.

A summary of other reporting formats and frequencies adopted to date is shown in Table 6.2.

Table 6.2: Regular Reporting Formats and Frequency

Control Area	Report Description	Frequency	Co-ordinated By
Progress (product delivery) against plan/programme	Steering Group minutes / Project plan review	Monthly	Project Director
Look ahead	Steering Group minutes / Project plan review	Monthly	Project Director
Costs and budgets	Monthly finance returns / management reports	Monthly	Project Director
	Quarterly LUF grant returns	Quarterly	SRO
Risks	Risk Register	Quarterly	Project Director
Issues	Steering Group minutes / Issues log	Quarterly	Project Director
Change control	Change log	Quarterly	Project Director

These management and reporting arrangements are subject to active and regular review to ensure they are working as effectively as possible. The procedures used are based on good practice, and it is anticipated that they, or a variation of them, will be adopted as the project moves forward.

As noted previously, progress on those elements of the project that are being led by PCC will be reported to:

- Cabinet/Executive Groups;
- Corporate Management Team;
- Towns Fund Board; and
- Growth and Regeneration Programme Board.

From the point that the project (or at least the relevant delivery packages) enters the Network Rail Investment Decision Framework, those elements will be run in line with the PACE process and will follow standard Network Rail reporting processes.

As a minimum, Network Rail reports on projects/programmes on a four-weekly basis - sometimes weekly dependent on urgency. Each project is categorised reflecting its complexity. Typical reports are as follows:

- Network Rail costs;
- Funding drawdown;
- Risk;
- Finance;
- People;
- Safety;
- Schedule;
- Current progress against milestones;
- Earned value, if applicable; and
- Contract status.

For schemes of significant value/significance, this is supplemented by Monthly/ Quarterly Reviews with the Route/Regional Managing Director.

The Capital Delivery part of Network Rail uses the P3M3 (Portfolio, Programme and Project Management Maturity Model) methodology as a management maturity model to assess how it delivers its projects, programmes and portfolio across the organisation.

6.9 Risk and Issues Management

The risk management process utilised for the project is designed to ensure that:

- Risks are identified;
- Owners of each risk are identified;
- Risks are prioritised;
- Impact of risks is understood;
- Mitigation and action measures are agreed and implemented;
- Mitigation and action measures are reviewed and managed; and
- Risks are escalated at the appropriate time.

Effective risk management is essential to ensure that any barriers to delivery are identified at any early stage in a project lifecycle and effectively monitored and mitigated. It is also essential to set out any budget allowances required to deal with any identified risk, depending on the impact and likelihood of occurrence of the risk, to mitigate the potential of unexpected demands to established workstream and programme budgets. Risk management will be implemented at the appropriate level according to the category of risk and allocated responsibility for managing the risk in question.

Risk identification to date has been undertaken with key stakeholders and the technical support teams across a range of risk categories (for example, scheme design, consenting, funding, governance and construction) across the whole project. Risks have been assessed to determine the probability and consequences of each risk, determining the relative level of risk, and whether risks should be monitored and controlled or whether a response or action is required.

A whole project-level risk register has been prepared and maintained by the Project Manager, which is the means of recording risk information and monitoring risk exposure at this time. It records identified risks and their associated assessments, and also includes risk control plans and responsibilities, as well as the status of all risks.

The latest version of the risk register is included at Appendix M. The key risks identified at this time are:

- Lack of clarity over relocation of the Network Rail MDU;
- Inability to agree with LNER amended arrangements for car parking;
- Increased competition for resources and funding;
- Compressed funding timescales may impact on programme;
- Complex governance arrangements between and within partners;
- Additional works required to existing building due to poorer existing condition than anticipated;
- Additional works required to existing structures due to poorer existing condition than anticipated; and
- Unknown/unexpected utility diversions required.

Reporting of the key risks has been undertaken at the monthly Steering Group meetings as necessary and these risks are being managed closely by the partners.

As the project progresses, separate risk registers will be developed for each of the delivery packages, feeding into the whole project-level risk register. For the highway and active travel elements, PHS will ensure that these will be in line with current practice.

For the delivery packages being led by Network Rail, their usual risk management activities will be engaged. Network Rail has a corporate risk management strategy and system for managing project/programme risks (Active Risk Manager) – this is reviewed and assessed on a four weekly basis and will also be visible to senior stakeholders should the risk exposure become significant.

The Designated Project Engineer and Project Manager are responsible for reviewing the requirement and implementation of the Common Safety Method on Risk Evaluation and Assessment (CSMRA) process which is a pre-requisite before any amendments are made or any new elements are added to buildings or facilities within the LNER 99-year lease. A quarterly Quantitative Schedule Risk Analysis (QSRA) is held to assess the likely impact of uncertainty on key milestones and project completion date.

Risks relating to construction works that are relevant to the operational rail network, either during design, construction or during operation, maintenance or deconstruction, are progressed through the CSMRA hazard log. Risks relating to construction works that are relevant to areas other than the operational railway network are progressed through the CDM issues log. The Safe by Design process is applied to the hazard elimination and risk mitigation/control for all project phases.

6.10 Lessons Management

During its delivery, as well as at the end of the project, the risk mitigation measures that have taken place will be analysed and recorded as part of the 'lessons learned' process to inform future management of similar schemes.

This process will record not only mistakes made in managing these risks but also good practice, ensuring that risk and issues are dealt with in the best manner possible in the future and hopefully will reduce the occurrence or impacts of the risk.

The previous experience of CPCA and Network Rail with the Soham rail station project will be used to help get the most of this process, with the following lessons identified in the resulting Network Rail Value Management Lessons Learned Workshop Report:

- Assess the programme regularly, ensure all disciplines are involved with the production and that consents and required approvals are added to the critical path of the programme;

- Ensure a delivery matrix is completed and briefed to all members in the project team – the delivery matrix should be monitored regularly; and

- Conduct regular meetings to monitor changes to the project team and ensure robust handover processes when team members leave and are replaced.

The key principles to be adopted for this project arising from this previous scheme is outlined below, but will also align with Network Rail's own internal processes and lessons learned model shown in Figure 6.2, to ensure that this project builds a culture that encourages the right behaviours:

- Informing and building the team - the 'lessons learned' approach will be outlined to the core team, including key stakeholders, and be demonstrated to ensure uptake, the formation of clear expectations and to clear up an potential misunderstandings.

- Gathering - a 'lessons learned' log will be set up and become a core part of the project management approach. Its use will be encouraged and it will be regularly reviewed as part of the risk management process so that it is more meaningful and relevant to the work of the team. 'Lessons learned' reviews will also be carried out at the end of each formal phase/milestone of the project and any learnings rapidly utilised both within the project being reviewed and in other related projects. In addition, face-to-face workshops will be convened at key points in the project delivery cycle where the project team will actively work with the experiences, deduct insights and obtain recommendations for action.

- Dissemination of findings - the outcome of the workshop sessions and reviews will be written recommendations for action and next steps. Information will be presented in an easy to understand way that that makes its relevance apparent. Different stakeholder groups will be made aware that the information is available and be provided copies as required.

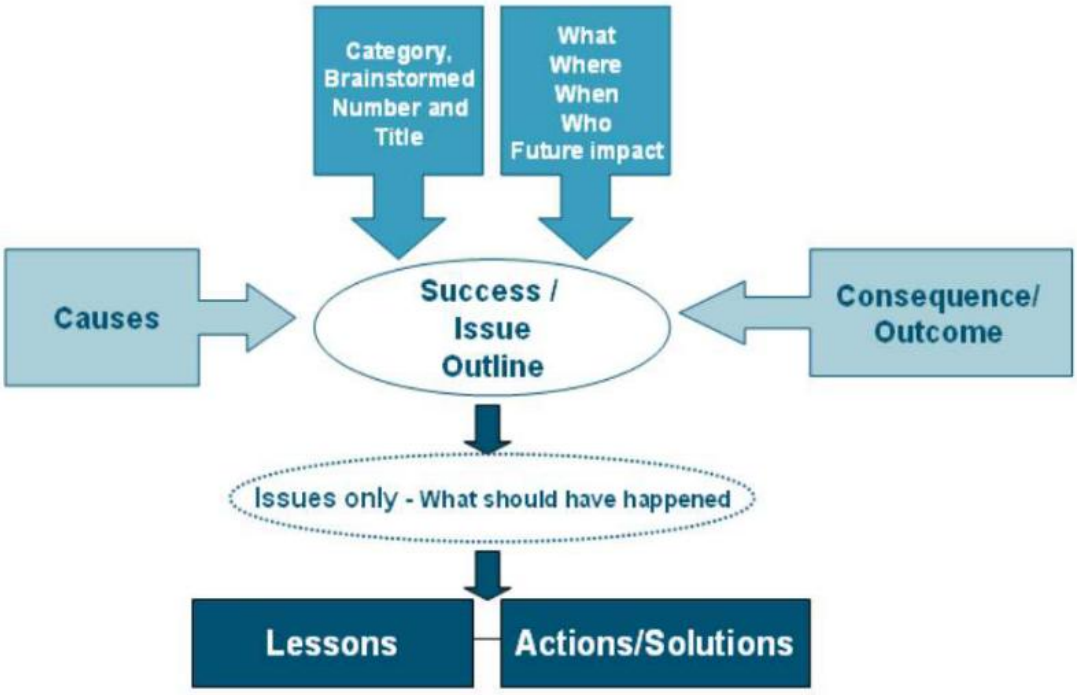

Figure 6.2 Network Rail Lessons Learned Model

6.11 Benefits Realisation, Monitoring and Evaluation

An outline Benefits Realisation Plan was produced alongside the SOC to begin the process of identifying, tracking and comparing the various benefits expected to be delivered. The agreed objectives and a logic mapping process were used to develop the "desired outputs, outcomes and impacts" of the project. These desired outputs, outcomes and impacts are the actual benefits that are expected to be derived from the project and are directly linked to the original set of objectives:

- Desired outputs – tangible effects that are funded and result from the project;
- Desired outcomes – what happens as a result of the outputs; and
- Desired impacts – the final impacts brought about by the project in the short, medium and long term as a result of the outputs and outcomes.

Given the agreed PSQ programme objectives, the desired outputs, outcomes and impacts have been converted into measurable indicators of benefits, closely aligned to the Monitoring and Evaluation Plan that has been developed and is included at Appendix N. The plan is cognisant of the following requirements:

- HM Treasury Magenta Book;
- DLUHC LUF2 Technical Note (Annex E);
- DfT Local authority major schemes: monitoring and evaluation framework;
- CPCA's Monitoring and Evaluation Framework v1.6;
- Network Rail PACE requirements; and
- LNER/Network Rail Agreed Performance Metrics

The plan has been developed by referring to the theory of change to identify key outputs, outcomes, and impacts. Where possible the standard outputs and outcomes set out in the LUF Monitoring Forms have been incorporated as well as DfT's enhanced monitoring measures for transport schemes and CPCA's Draft Key Metrics. The definition of these outputs, outcomes and impacts has been adjusted so that they align with the design of the project.

As a result, the following list of measures is proposed for monitoring and evaluation:

- Project build costs;
- Travel demand - rail, cycle, pedestrian, vehicles;
- Travel times and reliability - vehicle, cycle, pedestrian;
- Carbon dioxide reductions (resulting from travel demand changes);
- Noise reductions (resulting from travel demand changes);
- Local air quality improvements (resulting from travel demand changes);
- Accident reductions;
- Change in rail passenger numbers;
- Levels of customer satisfaction (based on LNER's Customer Satisfaction survey);
- Percentage of visitors and residents who report feeling safe in the local area;
- Number of full-time equivalent (FTE) permanent jobs created, safeguarded, or facilitated directly through the project;

- Index of Multiple Deprivation updates;
- Increase in GVA;
- Increase in labour market catchments areas;
- Increase in inward/business investment;
- Increase in land values around the station; and
- Change in perceptions of place (business, residents and visitors).

The type of evaluation method proposed is a combination of 'impact evaluation' and 'value for money' evaluation:

- Impact evaluation attempts to provide a definite answer to the question of whether an intervention was effective in meeting its objectives. Impact can in principle be defined in terms of any of the outcomes affected by a policy or intervention but is most often focused on the outcomes which most closely match with the ultimate objectives. The key characteristic of a good impact evaluation is that it recognises that most outcomes are affected by a range of factors, not just the policy or intervention.
- Value for money evaluation measures the economic outcomes and benefits of the interventions and the project's cost-effectiveness. There is some overlap with impact evaluation, although the impacts require monetisation, and this will be undertaken in line with TAG or DLUHC guidance.

It is intended to utilise data sources that are already readily available where possible to reduce monitoring and evaluation costs. However, these data sources will be supplemented with additional locally collected data where necessary to ensure the true impacts of the project are fully recorded. CPCA is committed to maintaining a repository of monitoring and evaluation data and is supported in doing this through Cambridgeshire Insight Partnership.

The monitoring and evaluation for the project will be undertaken by CPCA, PCC, Network Rail and LNER. The established governance structures will be used for the delivery of this activity. The collection and analysis of the monitoring data will be the responsibility of the Project Director and will be reported to the Steering Group. The Group will be responsible for ensuring the agreed measures have been monitored and will consider the results of the evaluation even beyond completion of the project.

In the case of PCC, the collection of data and preparation of the identified assessments will be managed as part of the wider monitoring and evaluation of the Cambridgeshire and Peterborough Local Transport Plan and the Towns Fund projects.

Prior to starting on site, any gaps in the required baseline evidence will be collected. A baseline evidence report will be completed on acceptance of the FBC and prior to construction of the project. Data will then be collected one year and five years post opening, which will be compared against the baseline data to quantify the extent of benefits realised.

'1 year after' and '5 years after' evaluation reports will be produced and published on the PCC and CPCA websites, which contains the results of a meta-analysis of all project evaluations carried out so far, highlighting any interesting and emerging trends. It is, however, anticipated that wider economic benefits may take longer time frames to manifest. This would invariably have a bearing on the timing of surveys and subsequent reporting.

The '1 year after' assessment will be used to understand the impact mainly on station access journey times/quality and passenger satisfaction. The '5 years after' assessment will look at longer term benefits including mode shift, area of development land released, jobs, additional business investment and land values.

PCC, CPCA, Network Rail and LNER recognise the importance of setting specific targets and accepts that the current Monitoring and Evaluation Plan does not yet include these for all metrics. The plan will be updated following the collation of the baseline report to include these targets.

Appendices

Appendix A: Updated Masterplan Framework

Appendix B: OBC Option Development Report

Appendix C: Station Option Development Report

Appendix D: Car Parking Strategy

Appendix E: Appraisal Specification Report

Appendix F: Economic Appraisal Technical Note

Appendix G: Appraisal Summary Table

Appendix H: Cost Plan

Appendix I: Delivery Strategy

Appendix J: Integrated Assurance and Approvals Plan

Appendix K: Project Plan

Appendix L: Communications and Stakeholder Engagement Plan

Appendix M: Risk Register

Appendix N: Monitoring and Evaluation Plan

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